



Hiring Policies at NOAA’s Geophysical Fluid Dynamics Laboratory (GFDL)

NOAA’s GFDL has several employment pathways: Federal Service, Contractors, and through Cooperative Institutes (CI) at Princeton University and UCAR. Due to the nature of the URGE program, we focus on the scientific staff at GFDL herein (that is, not the administrative and support staff or contractors). Hiring policies related to the latter will be addressed in a future effort led by the GFDL Diversity, Equity, and Inclusion Committee (DEIC).

For the most part, the federal employees at GFDL within the scientific staff are former postdocs and CI affiliates. We generally find that our hiring policies, procedures, and practices are opaque from the outside, and largely ad hoc from the inside: They vary by employment and by manager, and as such it is difficult to summarize experiences or pathways. As a result, we believe it is imperative that the culture shifts are instituted to bring DEI into *all* hiring practices, mentoring, and sponsoring of employees to improve recruitment and then retention.

We have made a conscious effort to write this report with limited insider knowledge so that it reflects how an applicant will find our hiring policies. In an independent effort underway, the GFDL DEIC is involved in reviewing all internal policies, practices, and procedures to help add DEI elements to them. We hope that this outsider-focused audit combined with the insider-focused one of the other committee can chart a clearer way forward for us to improve our hiring policies.

※※※※※



Unlearning Racism in Geoscience

Summary of findings

EEO & DEI statements

For all different categories, job advertisements include equal employment opportunity (EEO) statements. These EEO statements are all similar and standard: stating that the employer does not discriminate based on a seemingly comprehensive list of potential factors, like gender, sex, race, and other “non-merit factors.” All employers also have public statements on their websites about their DEI efforts in general as well as DEI and EEO statements on hiring and employment in particular. See [Appendix A](#) for more details.

Job advertisements

We are not aware of any systematic efforts to widen job advertisements’ reach. Job listings often only include predetermined places: for example, USAjobs for the federal government, Princeton University’s website, UCAR’s (University Corporation for Atmospheric Research) Workday, SAIC’s (Science Applications International Corporation) website. Jobs often are advertised on standard websites as well as community mailing lists like all-NOAA lists and ES_Jobs_Net (Earth Sciences Job Email list, sponsored by the Earth Science Women’s Network (ESWN) out of UCAR). Efforts to increase the reach of job posting beyond standard measures have been subjectively left to individuals conducting the hiring search. See [Appendix B](#) for more information.

Job application requirements

All pathways to employment include a standard job application with varying requirements. For example, the federal government requires a resume and detailed description of education history, with an optional cover letter. Princeton requires a vitae, publication list, a cover letter, research statement, as well as three letters of recommendation. See [Appendix C](#).

Application evaluation

From the outside, application evaluation seems opaque at best. There is no mention of evaluation in the Princeton University listings, for example, and the only mention of evaluation in the federal government listings is a generic statement: “You will be evaluated for this job based on how well you meet the qualifications above.” Thus, from the outside, it is not clear to us if



Unlearning Racism in Geoscience

there is a systematic application review process behind the scenes or if the applications are solely rerouted to the hiring person (manager).

In practice, however, the process is largely ad hoc with a lot of power in the hands of the hiring person, with the customary consent of a larger committee, and eventually the final approval rests in the hands of the director or dean. See [Appendix D](#) for more details.

Selection committees

Princeton University employees are reviewed by the hiring person as well as the Visiting Scientist Committee (VSC), composed of the division heads at the GFDL, Princeton University Atmospheric and Oceanic Sciences (AOS) faculty, and senior scientists who are former division heads at the discretion of the GFDL Director.

Federal employees are pre-screened by federal employment staff, with eligible applicants sent to the hiring manager for review. The hiring manager is responsible for creating a shortlist and interviewing candidates. Recommendations are made back to the employment staff, who handle negotiations and approval. See [Appendix E](#).

Outside audit

We are not aware of any outside audit in any of the employment pathways. In [Appendix F](#), we link to the website of the internal office of diversity and inclusion at NOAA, which has more internal information.

DEI strategies

There are no laboratory-wide DEI strategies that we are aware of, and thus DEI is ad hoc and left to individual hiring persons (see [Appendix G](#)). For example, some hiring officers make a point to recruit a diverse pool of applicants through more involved recruitment practices. Another example is where interview shortlisted pool sizes are increased to three or more people based on academic literature suggesting increasing interview pool size increases the likelihood of underrepresented groups being hired. Single DEI-driven managers lead to differences in interview practices.

※※※※※



Unlearning Racism in Geoscience

Reflections and recommendations

In our discussion, one major theme emerged as an important axis on which to implement various DEI strategies: the singular power of advisors and managers in scientific research. Doctoral thesis advisors have an outsized influence on the success or failure of their students, and thus the trajectory of their careers. This power differential persists in the initial hiring process of postdoctoral scholars where advisors and managers are gatekeepers. The merit of such a system can be, in theory, debated endlessly, and instead of doing that, we opt to recommend ways to work within the confines of the *de facto* power differential — recommending devolving some power away from advisors to limit abuse, but simultaneously, further empowering advisors to do better with their power.

For the most part, it seems to us that the general pathway of permanent employment (that is, federal employment) within the scientific staff at GFDL is via the pool of postdoctoral and research associates hired through the cooperative institutes at Princeton University and UCAR. This practice is a double-edged sword. On the one hand, it promotes a highly insular and hierarchical culture, where diversity is harder to achieve. On the other hand, it promotes stability and increases support for those privileged to be in the system and for those who have families. Thus, without reinventing the wheel with an overhaul of the system, systematic DEI efforts could be introduced at the postdoctoral hiring stage, where the power differential (discussed above) is most relevant. In the longer term, systematic DEI efforts in hiring postdoctoral and affiliate research scholars will be reflected at GFDL.

Ensuring diversity, equity, and inclusion cannot be entrusted to an ad-hoc process or to an individual, however carefully designed the process or deeply sincere the individual may be. We recommend proactively designing policies and then actively conducting reviews and checks of them on a regular basis.

I. Advising & leadership philosophy

We think that a major obstacle to diversity in academic and research circles is the self-preservation and self-aggrandizement of academics. Academics tend to take their “success” too seriously and too personally, and thus when anointing their successors, they tend to hire researchers and admit students in their image — perpetuating inequities in academia. This introduces a myriad of biases in academic hiring and admission, especially as these same academics have historically had an outsized power and influence over students’ and advisees’ careers.



Unlearning Racism in Geoscience

We believe that in order to engineer a meaningful change, a pivot in advising and leadership philosophy in academia must take place. The advising and leadership philosophy must revolve around nurturing individuals, rather than dominating and exploiting them for research products. We therefore recommend that advisors are empowered with financial resources and training to better nurture their advisees. In doing so, advisors will have enough time and resources to commit to advisees from marginalized communities to bring them up to speed with the rest of their colleagues, attempting to make up for systemic inequities. We also recommend that advisors be judged not only by the quality of their work in the short term, but also by the diversity of their advisees and the quality of their advisees' works in the long term.

DEI efforts have to start at the top of the hierarchy, where senior decision makers not only commit to, but also invest in, diversity and inclusion efforts. We recommend devolving some powers away from advisors and research managers to limit potential abuse of students and advisees. To reiterate, however, we also recommend that advisors and research managers be further empowered to better nurture their students and advisees. That is, advisors' ability to punish advisees and have undue influence on their current and future progress should be curtailed, but advisors should also be empowered (financially and via training) to better nurture advisees.

II. Recommendations for scientific staff hiring policies, practices, & procedures

A general finding from this audit is the opaqueness of the hiring policies and procedures at GFDL. We believe this is partly due to the fact that these policies and procedures are not formalized. As such, we recommend that the hiring process is formalized and transparent, both internally and, as much as possible, externally to potential applicants. We also advocate for involving DEI officials and advisors (who are not necessarily trained in the relevant scientific topics) in the hiring process of scientific staff. We recommend having more concerted cohort-hiring practices to increase diversity, as well as an advertised policy for partner hires that clearly states what are the possibilities and limitations of such hires within the blended GFDL workforce. Where possible, we recommend advertising multiple grant-funded postdoctoral positions at the same time to increase visibility, and help potential applicants navigate all the different opportunities being offered at GFDL. We hope this practice will help insert DEI considerations into hiring practices of grant-funded positions.



Unlearning Racism in Geoscience

Overall, having a formal process entails carefully designing a rubric that is not biased or based on an uneven playing field. We recommend keeping a thorough record of the hiring process such that it can be reviewed for potential biases and improvements. A systematic hiring process can be beneficial in engendering welcoming community spirit and togetherness, as well as providing equity in selection and promoting diversity.

Finally, we recommend the development of a six-month bridge program targeted at incoming postdoctoral scholars from racially marginalized communities to help promote equity and increase the likelihood of success of these postdoctoral scholars. This program should be open by application to all postdoctoral scholars, whether grant-funded or not; an independent panel composed of individuals inside and outside the lab should review applications and recommend individuals for the award.

III. Logistical barriers & solutions

GFDL is located near Princeton, NJ, which is an affluent area. Living near GFDL can thus be alienating and difficult to many people coming from marginalized communities. Therefore, for applicants from these communities, accepting a job offer at GFDL can prove difficult due to socioeconomic factors, especially as the initial postdoctoral contract is only for one year. We recommend allowing greater access to telework and providing greater assistance in moving and in family support for those in need, so that they can thrive and be successful amongst us.

※※※※※



Unlearning Racism in Geoscience

Appendices

Appendix A

- **What EEO (Equal Employment Opportunity) statement is included in a standard job or admissions advertisement? Are there other inclusion statements and resources publicly available?**
 - **Job advertisement:**
 - **The United States Government** does not discriminate in employment on the basis of race, color, religion, sex (including pregnancy and gender identity), national origin, political affiliation, sexual orientation, marital status, disability, genetic information, age, membership in an employee organization, retaliation, parental status, military service, or other non-merit factor.
 - **Princeton University** is an equal opportunity/affirmative action employer and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability status, protected veteran status, or any other characteristic protected by law + statement about accomodation later on (see example)
 - **The University Corporation for Atmospheric Research (UCAR)** is an equal opportunity/equal access/affirmative action employer that strives to develop and maintain a diverse workforce. UCAR is committed to providing equal opportunity for all employees and applicants for employment and does not discriminate on the basis of race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. Whatever your intersection of identities, you are welcome at the University Corporation for Atmospheric Research (UCAR). We are committed to inclusivity and promoting an equitable environment that values and respects the uniqueness of all members of our organization.



Unlearning Racism in Geoscience

- **SAIC** is an Equal Opportunity Employer empowering people no matter their race, color, religion, sex, gender identity, sexual orientation, national origin, disability, or veteran status. We strive to create a diverse, inclusive and respectful work culture that values all.
- Links to public statements:
 - **NOAA:**
 - <https://www.noaa.gov/organization/inclusion-and-civil-rights/policy-statement-on-equal-employment-opportunity>
 - Part of the job description has links to:
 - https://www.eeoc.gov/federal/fed_employees/index.cfm
 - <https://www.eeoc.gov/federal-sector/federal-employees-job-applicants>
 - <https://www.opm.gov/policy-data-oversight/disability-employment/reasonable-accommodations/>
 - D&I generally:
<https://www.noaa.gov/organization/inclusion-and-civil-rights/diversity-and-inclusion>
 - **SAIC:** <https://www.saic.com/eeo-statement>
 - **Princeton:** <https://rrr.princeton.edu/eop>
 - **UCAR:** <https://www.ucar.edu/who-we-are/diversity-inclusion>

Appendix B

- **Where are advertisements posted or sent? Are there other strategies for reaching applicants for hiring and/or admissions, e.g. job fairs, showcases?**

NOAA: USAjobs, email to all members, and hiring person's discretion and network

Princeton: mailists (e.g. Es_jobs_net), Twitter, and standard websites

An example of a current OAR / GFDL position:

<https://www.usajobs.gov/GetJob/ViewDetails/596526100>

An example current listing for a Princeton postdoc:

<https://puwebp.princeton.edu/AcadHire/apply/application.xhtml?listingId=19561>



Unlearning Racism in Geoscience

Appendix C

- **What are the requirements for an applicant, e.g. letters of recommendations, fees/test scores/grades? Is providing any of these a potential barrier that could be further lowered or removed? Are there any problematic questions asked?**
 - **Princeton University** requires a simple online application; applicants are asked to submit a cover letter, vitae, a publication list, a statement of research experience and interests, and names of at least three references.
 - **NOAA's** federal applications require a resume, an optional cover letter, a Career Transition Assistance Plan (CTAP) and Interagency Career Transition Assistance Plan (ICTAP) documentation if applicable, and finally a detailed education history including transcripts.

We are not aware of any problematic questions asked, though some of the requirements may introduce biases; for example, the recommendation letters can be a challenging metric if the PhD thesis advisor is unsupportive or adversarial to their advisees from marginalized communities. Additionally, some postdoctoral positions (through VSC) require a research proposal, which may introduce undue burden on candidates from marginalized groups who have not had any formal experience in proposal writing. What's more, writing a detailed research proposal presupposes a degree of knowledge of GFDL activities and priorities that may not be as accessible to applicants from marginalized communities as it is to privileged communities.

Appendix D

- **How are applicants/applications evaluated? Is that process and/or rubric public? What kind of biases are introduced in this process and what strategies are used to address these, e.g. removing applicant names?**
 - **NOAA:** the only statement about evaluation is something along the lines of "based on listed qualifications." Somewhat *opaque*.
 - **Princeton:** *even more opaque*; essentially, the hiring person will contact you for an interview.



Unlearning Racism in Geoscience

Appendix E

- **Who is on selection committees and who makes the final decisions? Who interacts with the applicants?**
 - **NOAA:** employment officer outside of NOAA makes the eligible list, which is sent to the hiring officer for review. Hiring officer shortlists candidates and interviews them, submitting notes and recommendations to the employment officer for final approval and contacting the applicants.
 - **Princeton:** initially with an administrative staff, if selected for interview, contacted by hiring scientist / research manager

Appendix F

- **Has your hiring and/or admissions process been evaluated by outside consultants? What is the process for changing it?**
 - **NOAA:** not that we are aware of. Some internal DEI stuff is in the link here: https://www.noaa.gov/sites/default/files/atoms/files/NOAA%20Office%20of%20Inclusion%20and%20Civil%20Rights%20FY19%20Diagnostic%20Assesment_0.pdf
 - **Princeton:** not that we are of.

Appendix G

- **Has your university or company implemented or considered strategies like cohort hiring, mentoring, dual career support and partner hires, re-visioning your work culture, or other considerations outlined in “Leveraging Promising Practices”?**
 - Princeton’s policies around this are not clear to our knowledge; however, we do know that this type of hiring happens: for example, in the past, efforts to recruit more women on the Princeton side included partner hires.
 - There is no formal policy that we are aware of on the side of NOAA, however, we have heard that it can potentially happen, though it is largely left to the discretion of individuals.