



FASEB comments in response to [NOT-OD-22-061](#) “Request for Information (RFI): Inviting Comments and Suggestions on a Framework for the NIH-Wide Strategic Plan for Diversity, Equity, Inclusion, and Accessibility”

Comments submitted electronically via [online Comment Form](#) on March 24, 2022

Objective 1: Implement Organizational Practices to Center and Prioritize DEIA in the Workforce

The “leaky pipeline” metaphor describes a loss of talent, often from historically excluded groups, during career progression. However, it is important to recognize the role of National Institutes of Health (NIH) as an architect of the system. Science careers were largely constructed with [ideal worker norms](#) in mind; therefore, the structure is “leaky” by design. In reality, a minority of scientists fit this outdated vision of an ideal worker, and it is imperative that all stakeholders actively challenge obsolete norms and dismantle barriers to success.

To understand needs of the scientific workforce current trends must be rigorously analyzed. Using [NIH as a testbed](#), examining who has access to on the job learning and professional development opportunities, who is tapped for leadership experiences, and who receives quality mentoring, coaching, sponsorship, and promotions may help identify key areas for improvement. If possible, tracking individuals who leave academic sciences may also be illuminating. FASEB applauds NIH’s [publication](#) of wage grade pay scale data by race and ethnicity, gender, and disability status, as well as demographic information by job category, supervisory status, and for senior leadership. We look forward to expansion of these data by individual Institute and Center, and suggest further breakdown of advancement to include step promotions within grade scales. Additionally, disaggregation of occupations, beyond “scientific,” “health and research,” and “infrastructure,” may unveil certain intramural sectors as exemplar in terms of diversity and pay equity to be replicated by other Institutes and Centers. This model can likely be adopted at majority of extramural institutions to help elucidate who are and are not being afforded opportunities to advance. Furthermore, it is critical to identify areas where intramural and extramural environments differ, such as grant funding, and research effective practices relevant to the extramural community.

Additionally, systemic collection, disaggregation, and publication of demographics when analyzing trends on opportunities and barriers is key. Repeating a previous [FASEB recommendation](#), including perspectives from groups beyond those defined in the [Notice of NIH’s Interest in Diversity](#) such as targets of harassment, sexual orientation and gender minorities, and racial minorities outside the current National Science Foundation definition of underrepresented groups may reveal overlooked disparities.

Measuring the prevalence of bias, bullying, and harassment is also crucial to understanding the current climate and identifying areas ripe for change. NIH has made laudable progress with the 2019 [Workplace Climate and Harassment Survey](#). Echoing a prior [FASEB recommendation](#) (reiterated in response to the Chief Officer for Scientific Workforce Diversity strategic plan), reaching the extramural community with helpful tools such as this may require widespread dissemination efforts beyond the usual players to those in the scientific workforce community that may not have direct lines of communication with NIH. Similarly, it is vital to routinely evaluate environments for overall culture change. A single survey is not enough. Follow up

actions must be taken including intramural and extramural leaders revising policies as appropriate, and identifying outcomes to understand impact of programs and policy changes targeted to enhance diversity, equity, inclusion, and accessibility.

Objective 2: Grow and Sustain DEIA through Structural and Cultural Change

Despite grantee institutions operating independently, NIH has vast influence as a standard bearer and primary funder in the field. Generating meaningful mechanisms of grantee accountability for commitment to diversity, equity, inclusion, and accessibility (DEIA) may be impactful, but must be more than simply checking a box. One potential method could be that scored training grant criteria for proposed training and/or training potential sections clearly expect explicit plans to address different professional growth needs for trainees from varying backgrounds. For instance, NIH could ask for indication of advisors implementing evidence-informed mentoring, utilization of mentor networks by trainees that is supported by research advisors, and ongoing pedagogical training. Evaluation of any updated scored criteria will be essential to assess effectiveness.

Creating welcoming environments requires recognizing scientists as whole people, not only workers. Adequate benefits help foster inclusivity and reduce burden. FASEB recommends NIH promote best practices until sufficient benefits become the norm, with understanding that NIH does not control awardee institution practices. To meet this variability, NIH may need to adjust policies to allow opportunities for more equitable benefits. For example, all postdoctoral scholars, regardless of funding source, should be able to access benefits similar to other employees at their institution. Other categories to evaluate current standards and promote more equitable approaches include [benefits for LGBTQIA+](#) scientists, availability of non-binary facilities, mitigating barriers to official employee identification matching personal identity, and support for working parents including childcare and lactation facilities.

The framework's emphasis on accessibility requires a focus on the needs of individuals with disabilities. FASEB looks forward to forthcoming recommendations from the Advisory Committee to the Director Working Group on Diversity [Subgroup on Individuals with Disabilities](#). Extramural institution disability offices often focus on accommodations for coursework, and staff usually do not have knowledge of aids to help in scientific environments. NIH is well suited to collate available assistive technologies and devices that may be useful in laboratory settings and communicate these findings to the extramural community. Active listening, empathy, and appreciative inquiry from leadership can help unveil assumptions being made about individuals' current capability and future potential, as well as if different standards are applied to some people or groups. By elevating needs of individuals with disabilities, NIH can encourage easier processes for requesting reasonable accommodations to help all scientist thrive.

Finally, targets of harassment are a key group of individuals that require consideration, and the prevalence of unwelcomed behaviors is a sign of a hostile culture. NIH's Working Group on Changing the Culture to End Sexual Harassment [recommended](#) establishing mechanisms of restorative justice, such as bridge funding for those who have lost salary support due to harassment and funding opportunities to restore careers of affected individuals. Implementation of restorative justice practices is understandably a difficult task, but as [previously noted](#) small actions may have meaningful outcomes to help retain talented scientists. FASEB supports further research into effective implementation practices, particularly to expand the ethos of proposed restorative justice mechanisms beyond sexual harassment to targets of all harassment.

Objective 3: Advance DEIA Through Research

Additional and ongoing studies into the needs of the current scientific workforce are pertinent. Importantly, NIH should elevate these concerns by engaging scholars outside of the biomedical and biological sciences—likely economists and social scientists—to conduct routine assessments of the NIH-funded workforce and disseminate findings. Furthermore, NIH also has a vital role to play in encouraging the scientific community to value all forms of evidence, including qualitative information, not only quantitative metrics. As [NIH has shown](#), focus groups and other forms of qualitative evidence can reveal illuminating findings. Matters such as measuring inclusive climates requires nuanced evaluation that cannot always be simplified to numbers with statistical significance. Conducting work that highlights active listening and empathy, and expecting extramural leaders to do the same, will be crucial to measuring culture change over time.

Further research is also needed into the financial implications and potential consequences of pursuing graduate education. The NSF [2020 Survey of Earned Doctorates](#) data shows for all doctoral awardees that those who identify as Black or African American leave with nearly three times as much (~2.7 times) graduate debt (\$63,087) as the overall mean for U.S. citizens and permanent residents (\$23,569) ([Table 40](#)). Additionally, 18.3 percent of all life sciences doctorate recipients accumulated over \$30,000 in graduate debt, but again Black and African American scientists are disproportionately affected with 49.3 percent reporting graduate debt greater than \$30,000 ([Table 41](#)). NIH should collaborate with NSF to identify debt levels by race and ethnicity for subfields funded by NIH. If disturbing trends persist, NIH must address this issue with creative programmatic solutions. FASEB appreciates the recently expanded [Loan Repayment Program](#) (LRP), but individuals must have their terminal degree to qualify. Diversity supplements, cost of living stipend adjustments, or a new form of LRP for PhD candidates, all for those with qualifying debt levels, may help alleviate financial burden prior to becoming a postdoc. This level of debt accumulated may dissuade talented scientists from pursuing their desired career, such as academic sciences, to work in a field with a higher salary. The prospective debt might also deter talented high schoolers and undergraduates from pursuing science fields at all.

NSF 2019 [Survey of Doctorate Recipients](#) data also indicate that fewer female life science PhD recipients are employed at four-year educational institutions than males as full professors, associate professors, assistant professors, and instructors or lecturers ([Table 17](#)), and female median salary is less than male median salary at all ranks ([Table 62](#)). Faculty pay inequity by gender is problematic and adds to undue burden faced by historically excluded scholars. Minority faculty tend to spend time engaging in activities such as mentoring, committee service, and other ways of giving back to the community that are not acknowledged, rewarded, or compensated—all of this on top of likely earning a smaller salary than colleagues who hold majority identity. Research into effective practices to achieve pay equity may help identify solutions to retain diverse faculty.