

To: Science agency heads (EPA, DOI, FWS, NMFS (NOAA Fisheries), DOC, NOAA, NIST, DOT, DOL, DOE, HHS, FDA, CDC, NIH, NSF, NASA, Census Bureau, USDA, USGS, NRC, NIOSH, SAMHSA, HRSA)

cc: OSTP

Re: Diversifying Federal Advisory Committees

The undersigned scientific and academic organizations are writing to support racial, ethnic, and gender diversity in federal science advice, as laid out in the Biden Administration's January 27th [Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking](#). The memo triggered a review process for all government agencies to assess the current and future needs for science advisory committees, including relevant changes to policies, processes, and practices related to vetting and selection of members[1].

In particular, the memo is explicit about the need for increased diversity and a wider range of experience and expertise of scientists serving on these committees. It asks that agencies work to "ensure that members and future nominees reflect the diversity of America in terms of gender, race, ethnicity, geography, and other characteristics; represent a variety of backgrounds, areas of expertise, and experiences; provide well-rounded and expert advice to agencies; and are selected based on their scientific and technological knowledge, skills, experience, and integrity, including prioritization of experience with evidence-based, equitable, inclusive, and participatory practices and structures for the conduct of scientific research and the communication of scientific results." Given that federal advisory committees are an important way the scientific community informs policy decisions, and that participation provides valuable career opportunities for scientists and experts looking to contribute their knowledge and perspectives at the intersection between science and policy decisions, we believe it is imperative that agencies take this directive seriously and implement it rigorously.

Lack of racial, ethnic, and gender diversity in the federal government is a persistent problem which exacerbates longstanding inequities and stifles progress[2]. Research has shown that diverse scientific teams achieve better results than racially and/or socioeconomically homogenous teams, due in part to differing backgrounds and varying perspectives[3]. In addition, the problems that agencies address and progress that agencies make have not been experienced or distributed equitably. Race, gender, sexual identity, income, and other sociodemographic factors are directly linked to environmental, health, and safety impacts[4]. The more diverse and representative science advisory committees are, the more individuals from these communities will be represented and the unique challenges they face reflected in science-based recommendations.

The administration has named racial equity as a top priority and such efforts must also ensure that federal science advice reflects the diversity of the nation. As the Biden administration takes steps to address these inequities within the federal government, we would urge agency heads to shift outreach plans, compensation models, and membership balance on federal advisory committees so that hiring external advisors is reflective of changes to internal hiring practices.

By law, federal advisory committees are required to be fair and balanced, but that definition has traditionally been narrowly focused on balanced expertise and viewpoints rather than membership

inclusive and representative of different races, ethnicities, genders, backgrounds, institutions, regions, and experiences. Agency heads working collaboratively with Chief Science Officers and Designated Federal Officials can:

- Update committee charters to include more explicit and inclusive language on qualifications for members. These qualifications should not necessarily be limited to individuals with terminal degrees in a particular field, tenured academics, or individuals solely within STEM fields. Scientific expertise could include individuals with experience living, working, and conducting community science in environmental justice communities, and/or holders of Traditional Ecological Knowledge (TEK), for example.
- Change committee membership selection processes to include a range of backgrounds and experiences within the committee’s definition of “balance” and explicitly ask for demographic information on committee nomination forms.
- Design incentive structures, such as compensation for committee meeting time, to recruit a broader pool of the best candidates, including qualified early-career scientists, and reduce barriers to participation for open committee positions.
- Include in efforts to solicit committee nominations outreach to:
 - Academic institutions that serve historically underrepresented communities, including Historically Black Colleges and Universities (HBCUs), Asian American and Native Pacific Islander-Serving Institutions, Tribal Colleges and Universities, Hispanic Serving Institutions and their consortia (i.e. American Indian Higher Education Consortium (AJHEC), Hispanic Association of Colleges and Universities), and institutions that serve higher rates of Pell Grant recipients, rural, first-generation, and other similarly underrepresented communities [5].
 - Administrators and principal investigators of existing agency programs, and their networks, which fund and support the advancement of underrepresented scientists, for example: the National Institute of General Medical Sciences Institutional Training Grants and Research Education Programs, the National Science Foundation’s Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (HBCU-RISE), the US Department of Education Office of Postsecondary Education Federal TRIO Programs, and other relevant programs [6].

Moreover, there should be accountability in this undertaking. Data collection and analyses on these efforts would help the administration and agencies understand outcomes from this review process, best practices, and ways to improve. Transparency in the process and methodologies of this change in policy and practice would allow researchers and the public to understand whether committees are becoming more inclusive.

We believe that broader, more diverse representation on science advisory committees will lead to more comprehensive and equitable decision making at the federal level. We would like to offer the collective power and specialized expertise of our organizations and the scientific community to help with this undertaking. Collectively, our organizations and others can offer a variety of resources for implementing meaningful changes to agency practices:

- 500 Women Scientists has a website dedicated to resources for finding women, including women of color, who are experts in a variety of technical fields[7].
- Scientific organizations representing scientists of color, like the National Society of Black Engineers, the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, and the Black Doctoral Network, have thousands of members who could be reached when there are openings on committees in need of relevant expertise[8].
- The National Science Foundation (NSF) has designated states with lower percentages of 5-year funding of NSF research projects in its Established Program to Stimulate Competitive Funding (EPSCoR), so agencies can target inclusion of those states as potentially underrepresented. Similar strategies could be taken at agencies to prioritize membership shifts necessary on various science advisory committees[9].
- Green 2.0 serves as a watchdog for diversity, equity, and inclusion in the environmental sector, tracking how institutions are doing and providing resources to help implement concrete changes[10]. Similar tracking and accountability mechanisms would help ensure federal agencies are making progress toward better representation of a wider range of experts on its advisory committees.

As the Biden administration works to advance diversity, equity, and inclusion, it must embrace equal opportunity within the federal scientific workforce and the thousands of science committee advisors that support agencies on a range of scientific and technical matters. Now is the time to make changes to the U.S. science advice infrastructure that will provide for more rich, complex, and valuable expert input and serve as a model for science advice across the U.S. and abroad.

Please let us know if you would like to meet to discuss the content of this letter. You may contact Genna Reed at the Union of Concerned Scientists at GReed@ucsusa.org to schedule a meeting with representatives from the organizations signed onto this letter.

Sincerely,

Union of Concerned Scientists
 500 Women Scientists
 American Association of University Professors (AAUP)
 American Federation of Teachers
 American Geophysical Union
 American Institute of Biological Sciences
 American Public Health Association
 Antioch University
 Association of Environmental Studies and Sciences
 Ciencia Puerto Rico
 Global Council for Science and the Environment
 Human Impact Partners
 International Society for Environmental Epidemiology -- North American Chapter
 Natural Science Collections Alliance
 National Society of Black Engineers (NSBE) Public Policy SIG

Society of Women Engineers

- [1] <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/>
- [2] <https://science.house.gov/imo/media/doc/2021-3%20EMBARGOED%20Scientific%20Brain%20Drain%20Majority%20STAFF%20REPORT%20w%20cover%20page.pdf>;
https://www.sciencemagazinedigital.org/sciencemagazine/09_april_2021_Main/MobilePagedArticle.action?articleId=1675739&app=false#articleId1675739
- [3] https://www.si.edu/content/OEEMA/OSTP-OPM_ReportDigest.pdf;
<https://doaj.org/article/379ec5d0302540aeb66893c40b554fb2>
- [4] <https://digitalcommons.law.yale.edu/yjil/vol18/iss1/12/>;
<https://www.nature.com/articles/nrcardio.2015.152>
- [5] <https://www.aanapisi.net/>; <http://www.aihec.org/index.html>; <https://www.hacu.net/hacu/default.asp>
- [6] <https://www.nigms.nih.gov/research-training/resources/funded-institutional-training-grants>;
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6668&org=NSF;
<https://www2.ed.gov/about/offices/list/ope/trio/index.html>
- [7] <https://500womenscientists.org/related-resources>
- [8] <https://www.nsbe.org/home.aspx>; <https://www.sacnas.org/>; <https://www.blackphdnetwork.com/>
- [9] <https://www.energy.gov/articles/us-department-energy-announces-21-million-research-epscor-states>
- [10] <https://diversegreen.org/about/>