

Directorate for Social, Behavioral, and Economic Sciences

Division of Social and Economic Sciences Response to the 2021 Committee of Visitors Report

Overview

The Committee of Visitors (COV) for NSF's Division of Social and Economic Sciences (SES) met May 24- 26, 2021, and included the chair and co-chairs and at least one member representing each of the ten programs reviewed: Cultivating Cultures of Ethical STEM; Decision, Risk and Management Sciences; Economics; Law and Social Sciences; Methodology, Measurement, and Statistics; Political Science; Science of Organizations; Science, Technology and Society; Sociology; Secure and Trustworthy Cyberspace.

The members of the COV met in plenary and in program-focused and cross-program sessions and reported out to Dr. Arthur Lupia, NSF Assistant Director for the Directorate for Social, Behavioral, and Economic Sciences (SBE), and Dr. Kellina Craig-Henderson, NSF Deputy Assistant Director for SBE. The COV also reported to the SES Division leadership, Program Officers, and administrative staff.

The following response considers and addresses the recommendations made by the COV. With sincere thanks to the 2021 COV for its many insightful observations and comments, the Directorate intends to respond to the COV's recommendations through the following actions.

COV Recommendation #1

The SES division should undertake its own internal study to evaluate the application and success rates of underrepresented scholars as well as the demographics of evaluators and panels. Such a study could include attention to the barriers or obstacles that discourage submissions from underrepresented groups, and the characteristics of proposals from researchers in these groups that affect their success rates.

Response: *The SES Division will take this recommendation under advisement. As noted by the COV, the quality of available internal administrative and demographic data limits their usefulness. Such a study would entail significant additional personal data collections that are not presently within NSF's purview to obtain directly from applicants and reviewers. This might be viable as a project for a fellow or a member of the external research community that could be proposed under the new Science of Science program should resourcing be available.*

COV Recommendation #2

The SES should fund a study to investigate the considerable underreporting of demographic information, how to increase response rates, and current and emerging statistical methodologies that can create a more accurate picture given current data gaps. It may also be fruitful to seek out best practices regarding the collection of this data at other institutions such as the NIH.

Response: *The Division appreciates this recommendation and notes that the underreporting of demographic information is an agency-wide challenge. The agency has looked into this issue and identified several structural barriers that were unintended consequences of the development and evolution of NSF's FastLane system over three decades, namely: users have distinct (unlinked) profiles as applicants and reviewers leading to discrepancies in reported information; duplicate user profiles for both applicants and reviewers were common, so previously provided information was not maintained; and, the design of the demographic items (as non-required sub-sections of a profile) encouraged users to skip or ignore them. With the ongoing phase-out of FastLane, the agency is working to improve these items. For instance, the Research.gov launch has included an effort to consolidate the duplicate profiles that many individual applicants had under different organizations. NSF's external facing sites for applicants and reviewers have been, or will be, reorganized to require responses to demographic information items (even if the response is to explicitly decline to provide). Furthermore, the agency is also working toward a 'single ID' for external users that will further improve the data by consolidating duplicate profiles and separate profiles for applicant and reviewer functions into a single profile. All of these changes are expected to improve the quality of these data in the future.*

COV Recommendation #3

The SES should consider requesting that proposals address how the project will advance the NSF's goals of diversity, equity, and inclusion and that reviewers include this information in their assessment of the proposal. DEI statement could be woven into the proposal narratives but is likely to be more comprehensive if it stands alone like the Data Management Plan. These goals could be advanced in a variety of ways, including through the substance of the research (e.g., developing a systematic understanding of how racial bias is built into technological design), the broader impacts (e.g., helping scientists consider the needs of marginalized communities in their research), and the participants (e.g., diversity in the PIs, co-PIs, or trainees involved in the project). It could be particularly constructive to have proposals explicitly address how the project will increase the participation of underrepresented groups relative to norms in the respective academic disciplines.

Response: *The Division agrees with the need to better address the significant and continued gaps in the research enterprise, and the Division agrees that addressing NSF's goals of diversity, equity, and inclusion would be an important element as part of the proposal and/or as a separate document. This could be piloted on some proposals (such as large ones) within specific programs and then expanded to others. The Division will discuss these with the SBE Directorate and NSF leadership and explore ways to incorporate these suggestions in program solicitations and in the review process.*

COV Recommendation #4

The SES should further improve outreach to groups that are underrepresented in the fields covered by its programs. One avenue for doing so would be to continue to develop and broaden formal outreach programs to institutions serving Black, Indigenous, and People of Color (BIPOC). More generally, the SES should provide

more time for program officers to directly connect with underrepresented populations in order to introduce their programs and offer guidance for proposal success. The NSF/SBE/SES could also consider establishing regional offices or networks of sponsored-research support to help researchers from underrepresented groups, particularly, those working at institutions that lack well-developed offices of sponsored research, prepare proposals.

Response: *The Division has been increasing its engagement with groups underrepresented in different fields, providing more outreach events, increasing the number of grant reviewers and panelists from HBCUs, HSIs, and institutions in EPSCoR states. In addition, the SBE's Build and Broaden (B2) 2.0 Program (NSF 21-542) is designed to increase proposal submissions, advance research collaborations and networks involving MSI scholars, and support research activities at MSIs. Future updates to the solicitation will further target greater MSI participation in research proposals submitted to B2. The Division is also involved in the cross-directorate HBCU Excellence in Research (HBCU-EiR) (NSF 20-542) solicitation which provides opportunities to foster improvements in HBCU's research and development capacity. SES will continue to be proactive with these efforts, organize MSIs convenings focused on proposal preparation and collaboration, and have its outreach activities promoted and advertised through listservs of institutions and professional organizations serving Black, Indigenous, and People of Color. The Division will continue to participate in Working Groups such as the NSF-wide Science of Broadening Participation and the SBE Directorate-wide Minority Serving Institutions Working Group and explore creative ways to improve its outreach. The Division agrees that developing regional offices or networks of sponsored research would be helpful particularly at institutions with limited resources and already referred this recommendation to the SBE Directorate and NSF leadership. Staff are currently formulating to move ahead.*

COV Recommendation #5

We urge the NSF to develop a data collection policy that enables researchers to perform rigorous scientific analysis on programmatic diversity performance. We recommend incentives to supplement current awards to include members of underrepresented groups as collaborators in extending the scope of awards. Experienced PIs are more likely to embrace collaboration if such resources are provided. The COV prefers to support scholars making these important steps rather than to penalize them for non-compliance.

Response: *The Division agrees that examining programmatic diversity performance is important and that having incentives for experienced principal investigators (PIs) to include and collaborate with members of underrepresented groups would be effective in increasing diversity. In addition, supplements focused on increasing research capacity at MSIs (such as the EPSCoR's supplements to partner RII Track-2 Projects with MSIs, NSF 21-078) could foster collaborations and increase diversity. The Division will approach these issues with the SBE Directorate and the Foundation leadership to explore strategies to foster programmatic diversity.*

COV Recommendation #6

In order to expand the pipeline of students into research careers, particularly those from underrepresented backgrounds, the NSF could consider low-cost funding mechanisms that would encourage universities to allow PIs to teach small-enrollment courses on topics related to the areas of NSF supported research. It could also make clear that the broader impacts section of any proposal should include a description of how the research will also make its way into the classroom. Such efforts could provide an introduction to the research and knowledge production function in the classroom setting, demystifying the research process and creating access for a broader range of students.

Response: *The Division agrees that expanding the pipeline of students into research careers is dependent on their educational exposures, and that NSF funded research should be shared in the classrooms. Teaching activities are effective ways to underline the research and the projects' Broader Impacts and have been used by many PIs. The Division will explore strategies to encourage prospective PIs to make this connection more prevalent, while noting that Broader Impacts can be addressed in a variety of ways (and not be limited to educational activities).*

COV Recommendation #7

In the interest of creating a broader and more diverse pool of reviewers, the SES should:

1. Explore the potential for making more use of successful scholars at non-academic institutions as reviewers. In some SES fields, such as economics, a sizable share of new PhDs take positions at non-academic institutions where research is emphasized—such as government agencies and non-profit research organizations. Evidence suggests that the scholar pools at some of these institutions can be more diverse in certain ways than at their academic counterparts. While many of these scholars may never apply for an NSF grant themselves, some have excellent credentials and are eager to engage with the broader scholarly community. For instance, the NSF has made use of reviewers from the Federal Reserve System, but this vast community, as well as others similar non-academic institutions, could probably be utilized further.
2. Explicitly study the lessons learned from going virtual during the pandemic. Recognizing that the background materials were clear that most panelists have a preference for in-person meetings, it would still be useful to consider the available evidence regarding whether the virtual model made it easier to engage some pools of scholars—such as those from rural areas or the West Coast, those with complex family responsibilities, or those who are simply very busy. It would also be worth thinking through what advantages (beyond the reduced cost and burden of travel) the virtual model offers. For example, the SES staff mentioned that virtual meetings could be three days instead of two, which some panelists found easier to manage. Finally, some reflections on how the virtual experience could be improved would be useful—is there a way to enable informal networking virtually?
3. Develop processes and procedures to improve communications around reviews. COV members felt that some potential reviewers might be more likely to agree to

accept if they better understood the role that reviews play in the final proposal assessment. In addition, some direct signals about the typical time commitment might be helpful as potential reviewers (particularly the more conscientious ones) might turn down reviewing because they assume the work and time commitment is substantially higher than what is actually required.

Response: *The Division agrees that having a diverse pool of reviewers is extremely important and strives to achieve this through various mechanisms. SES is thankful for this recommendation and will continue reaching out to qualified non-academic institution-based reviewers. The Division agrees that virtual review panels have the potential to attract more diverse reviewers and it is seriously considering this option. The Division agrees that having a clear understanding of the reviewer process would facilitate recruiting a more diverse group of reviewers, particularly those who might not be familiar with it. We will continue to conduct online webinars to encourage participation in the review process and to prepare reviewers for it. Besides these publicly available webinars, the Division could consider developing informative materials about the review process to be placed on its website and to be distributed to the community. The Division will explore and consider other ways to attract a diverse pool of reviewers.*

COV Recommendation #8

The SES should develop a mechanism that provides more transparency and accurate documentation of collaborative funding activity with the SES, SBE, and larger NSF. Although the balance of awards across disciplines appeared to be appropriate, the COV found it difficult to make a precise assessment because many of the projects supported within SES require theories, methods, and approaches that cross several disciplinary boundaries.

Response: *The Division has been actively involved in collaborations with other Divisions in the SBE Directorate and in the Foundation at large, with many of the projects funded being multidisciplinary, interdisciplinary and transdisciplinary in nature. We will explore ways to make these collaborations more visible and precise through further data queries and reporting. For example, NSF is growing its usage of business intelligence tools, such as the internal MyNSF system. Using this growing suite of internal data analytics, it may be possible in future years to further analyze collaborative activities across SBE and NSF. We also will implement a process that ensures SES does not simply collaborate whenever it is requested: instead, we will ask what the benefits are to the division, and assess how the benefits compare to the time, effort, and opportunity costs of working others across NSF. When we agree to participate in activities beyond the division, we will be explicit about expectations (e.g., for time and effort of a program officer in the activity) and maintain a written record of the agreements we make with our collaborators.*

COV Recommendation #9

The SES should develop new pathways and structures to broaden the types of institutions that receive NSF funding. The COV noted that SES awards continue to be concentrated among a small number of institutions.

Response: *The Division has been proactive in broadening the types of institutions that receive NSF awards by actively participating in Directorate and Foundation-wide initiatives with this focus. As an example, SBE's Build and Broaden program (NSF 21-542) encourages research collaborations between scholars at MSIs and scholars in other institutions or organizations and made awards in FY 2021 to more than 20 MSIs in 12 states and Washington DC. In addition, SBE's Science of Broadening Participation (SBP) Program supports the science behind effective broadening participation to help increase access and involvement of underrepresented groups in different societal sectors (e.g., education, workforce). The Division has also been engaging reviewers and panelists from non R1s universities (i.e. those with lower research activity), MSIs and liberal arts colleges and their numbers have increased. We will continue to explore different ways of engagement, such as offering webinars, workshops, and one-on-one discussions with program officers about different funding opportunities and solicitations. In addition (and as indicated above), the Division believes that developing regional offices or networks of sponsored research would be helpful particularly at institutions with limited resources, and we have already referred this recommendation to the SBE Directorate and NSF leadership.*

COV Recommendation #10

The SES should continue to work to develop new pathways and structures to enable early-career investigators to effectively compete with seasoned NSF award winners. Although the COV judged the balance of awards conditional on quality of the applications to be appropriate, the COV noted that the lower success rates of early-career researchers might be partly related to less familiarity with the process.

Response: *The Division will continue to explore ways to enable early career investigators to become successful NSF awardees. SES has been proactive in inviting early career scholars to be reviewers for ad hoc reviews and in panels, since becoming cognizant of the review process is an effective mechanism in increasing their grant submissions' success rate. The Division has also been actively involved in outreach activities (e.g., webinars about solicitations, program officers' online office hours,) and in events such as the NSF Grants Conference as well as presentations to conferences of different professional organizations, encouraging submissions of early career professionals. These efforts will continue and new mechanisms for engagement will be explored.*

COV Recommendation #11

In order to better equip the next COV to fulfill its duties, we recommend that the SES provide a more in-depth introduction to the actual practice of participating on the COV committee. The orientation for this COV focused on technical and administrative detail with little discussion of how the COV's time would be spent and the expected output.

Response: *The Division is grateful for the COV comprehensive report and recommendations. In response to this suggestion the Division will revise the Guidance for the COV to include more information on the review process, interactions, and the report.*