FY 2021 NSF STRATEGIC OBJECTIVE PROGRESS UPDATE

In FY 2021, NSF conducted the final set of Strategic Reviews of the six Strategic Objectives in its 2018-2022 Strategic Plan, in response to the requirement of the GPRA Modernization Act 2010, Section 1116(f). This information informed NSF's classification among three categories of the level of progress made towards each Objective: noteworthy progress, in need of focused improvement, or neither (making typical progress).

FY 2018-2022 Strategic Plan and Strategic Objectives

NSF's Strategic Plan for FYs 2018-2022, *Building the Future: Investing in Discovery and Innovation,* lays out two strategic goals that embody the dual nature of NSF's mission to advance the progress of science while benefitting the Nation: *expand knowledge in science, engineering, and learning* and *advance the capability of the Nation to meet current and future challenges*. A third goal, *enhance NSF's performance of its mission*, directs NSF to hold itself accountable for achieving excellence in carrying out its mission. Each goal has two Strategic Objectives which together encompass all areas of agency activity. This goal structure enables NSF to link its investments to longer-term outcomes.

Strategic Goal	Strategic Objective
1 Expand knowledge in science, engineering, and learning.	**1.1 Knowledge** Advance knowledge through investments in ideas, people, and infrastructure.
	1.2 Practice Advance the practice of research.
2 Advance the capability of the Nation to meet current and future challenges.	**2.1 Societal Impacts** Support research and promote partnerships to accelerate innovation and to provide new capabilities to meet pressing societal needs.
	2.2 STEM Workforce Foster the growth of a more capable and diverse research workforce and advance the scientific and innovation skills of the Nation.
3 Enhance NSF's performance of its mission.	**3.1 Human Capital** Attract, retain, and empower a talented and diverse workforce.
	3.2 Processes and Operations Continually improve agency operations.

Two Components to NSF Strategic Reviews: Topic Reviews and Objective Rankings

NSF's Strategic Review process uses the results of existing assessments, evaluations, and reports as well as other sources of evidence. Dashboards for each of the Strategic Objectives in the NSF Strategic Plan are updated. These Objectives are crosscutting and do not mirror NSF's organizational structure, and the major strategic issues often facing NSF seldom fit within a single Objective, so NSF also scans the environment for topics and conducts crosscutting topical reviews as necessary. These are performed as a cross-NSF activity and are broader in scope than single organizational units or individual programs.

Both elements of the process draw upon comprehensive assessment processes that already are in use at NSF. For example, the annual Merit Review Report to the National Science Board describes

all annual outputs.[1] The Committees of Visitors (COV) process, in which external experts assess NSF programmatic activities approximately every four years, is also comprehensive.[2] Instead of duplicating these efforts, the strategic review process at NSF complements them by making use of the information they generate when appropriate (e.g. reviewing their recommendations or using their data in a topic review, and using them as sources of evidence for a dashboard).

FY 2021 Objective Rankings

For the Objective rankings, NSF's Performance Improvement Officer (PIO) reviewed internal performance dashboards which contain information on relevant measures, recent evaluative activities, challenges, and risks in each Objective's domain. NSF is purposefully ranking its STEM Workforce Objective, 2.2, as demonstrating Noteworthy Progress and being a Focus Area for Improvement. This decision reflects the evolution and the elevation in the awareness and understanding of issues related to diversity, equity, and inclusion over the past year at a national level as well as at NSF and within the communities NSF serves. The ranking of Noteworthy Progress reflects the important steps NSF has taken over the past year to address longstanding disparities throughout the STEM enterprise, and the recognition of this as a Focus Area for Improvement parallels the import and the scope of the larger challenge, as identified most notably in the Administration's Executive Order on Racial Equity (EO 13985) and the National Science Board's *Vision 2030* report.

A few specific activities to advance diversity, equity, and inclusion are underway at NSF, and these reflect both NSF's longstanding leadership and commitment as well as its appreciation of the need for new approaches and an increased sense of urgency. (Note that this list excludes government-wide activities such as those in response to Executive Orders.)

- Racial Equity Task Force – established June 2020, the Racial Equity Task Force was charged to identify institutional and other barriers to full inclusion in STEM and to make recommendations to eliminate those barriers – both inside NSF and in the community it serves. Its two subgroups (Racial Equity Employment Working Group and Program Delivery Working Group) provided recommendations to the NSF Director in Spring 2021, and an action plan was released in December 2021. Implementation of that plan is ongoing.
- Management Challenge – In Fall 2020, the NSF Office Inspector General (OIG) identified "Increasing Diversity in Science & Engineering Education and Employment" as a Management Challenge for NSF. This challenge focuses on NSF's efforts to develop strategies and programs to increase diversity in science and engineering education and employment and to measure their effectiveness. NSF's response to this challenge was provided to OIG in the fall of 2021 and published as an appendix to the Annual Financial Report in November.[3]
- GAO Report – The 2020 report "Sexual Harassment in STEM Research: Agencies Have Taken Actions, but Need Complaint Procedures, Overall Plans, and Better Coordination" (GAO-20-187) recommended that the agency establish goals and an overall plan to assess its sexual harassment prevention efforts.[4] NSF implementation of this recommendation began in FY 2021 and is ongoing.
- Agency Priority Goal – NSF has established an Agency Priority Goal to, "increase both the number and proportion of proposals received from underrepresented and underserved 1) investigators, and 2) institutions by 10 percent over the FY 2020 baseline" by September 30, 2023.

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[1] Merit Review Reports can be accessed at www.nsf.gov/nsb/publications/pubmeritreview.jsp
[2] More information on Committee of Visitors can be found at www.nsf.gov/od/oia/activities/cov/
[3] The NSF Agency Financial Report for FY 2021 is available at www.nsf.gov/pubs/2022/nsf22002/index.jsp
[4] GAO-20-187 is available at www.gao.gov/products/gao-20-187

- Change in Strategic Plan structure – Conversations throughout Spring 2021 about the Strategic Plan resulted in a change to the three-goal structure previously in use by NSF, with the addition of a new goal focused on the STEM workforce (which previously had been addressed at the Strategic Objective level). The change allows NSF to address some of the diversity, equity, and inclusion issues related to the STEM workforce in a more prominent manner.

2021 Process Adjustments

NSF used the topical review process to support the development of the next Strategic Plan and round of Agency Priority Goals, as well as to coordinate developing Evidence Act processes and products with performance processes and products. As in 2020, thanks in large part to the IT infrastructure and flexibilities afforded by NSF to all staff during the pandemic, all work was able to proceed in a fully remote setting.