INCLUSION ACROSS THE NATION OF COMMUNITIES OF LEARNERS OF UNDERREPRESENTED DISCOVERERS IN ENGINEERING AND SCIENCE (NSF INCLUDES)

NSF INCLUDES Funding (EHR)[1]

(Dollars in Millions)

FY 2020 Actual	FY 2021 Estimate	FY 2022 Request
$20.75	**$20.00**	**$46.50**

[1]Funding displayed may have overlap with other topics and programs.

Overview

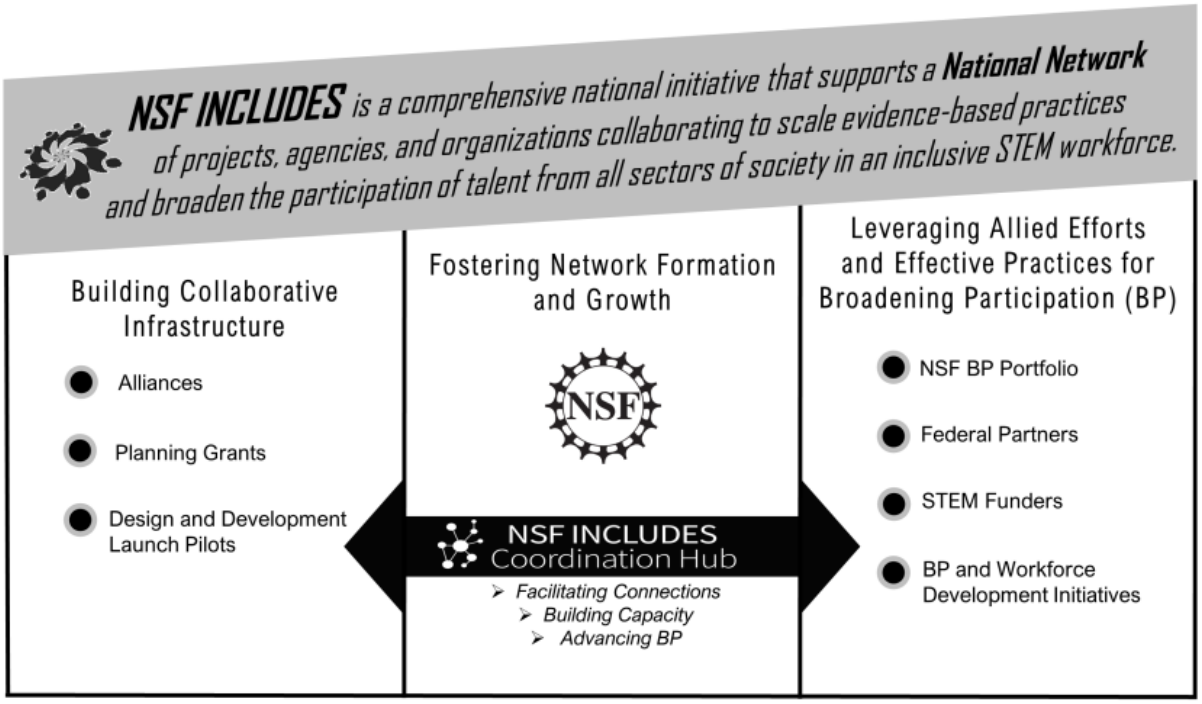
The NSF INCLUDES Big Idea aims to develop a talented, innovative, and capable STEM workforce that reflects the diversity of the Nation. For the United States to remain the world leader in STEM innovation and discovery, it must identify and develop talent from all sectors to become tomorrow's STEM professionals. Providing opportunities and support for members of all communities and sectors across the Nation reflects NSF's commitment to broadening participation and is vital for the Nation's economic welfare, which aligns with the Administration's priority crosscutting action to build and leverage a diverse, highly skilled American workforce.

NSF INCLUDES is NSF's response to the Committee on Equal Opportunities in Science and Engineering's (CEOSE) 2011-2012 Biennial Report to Congress.[1] CEOSE recommended that NSF develop "a bold new initiative focused on broadening participation of underrepresented groups in STEM, similar in concept and scale to NSF's centers." As part of NSF's continuing response to CEOSE's recommendation, NSF is investing in developing and sustaining the NSF INCLUDES National Network, a multifaceted collaboration of agencies, organizations, and individuals working collectively to scale innovations in pursuit of broadening participation in STEM. The NSF INCLUDES National Network comprises NSF INCLUDES Design and Development Launch Pilots,[2] NSF INCLUDES Alliances,[3] NSF INCLUDES Planning Grants, and an NSF INCLUDES Coordination Hub.[4] NSF INCLUDES Alliances serve as testbeds for designing, implementing, studying, and refining change models that are based on collective impact-style approaches.[5] Opportunities to join the NSF INCLUDES National Network have been extended through dear colleague letters and language in multiple agency-wide program solicitations. Other organizations with an interest in broadening participation in STEM are invited to join and support the goals of the NSF INCLUDES National Network via the Coordination Hub and its website.[6] The NSF INCLUDES National Network has expanded through the addition of federal agencies that are part of the NSTC Committee on STEM Education and the Federal Coordination in STEM Subcommittee. The NSF INCLUDES investment continues to provide valuable research and evaluation knowledge that will contribute to NSF's understanding of strategies for addressing the Nation's most challenging STEM diversity and inclusion issues at scale. Significant advancement in the inclusion of groups underrepresented

[1] www.nsf.gov/od/oia/activities/ceose/reports/Full_2011-2012_CEOSE_Report_to_Congress_Final_03-04-2014.pdf
[2] NSF INCLUDES Design and Development Launch Pilots—pilot to address broadening participation planning activities and laying the foundations for potential partners to share common goals and purposes
[3] NSF INCLUDES Alliances: collaborators or partners working to scale best practices in broadening participation
[4] NSF INCLUDES Coordination Hub: collaboration of multiple institutions facilitating activities needed to build and maintain the network
[5] Kania, J., & Kramer, M. (Winter 2011). Collective impact. Stanford Social Innovation Review. https://ssir.org/articles/entry/collective_impact. Kania and Kramer note that collective impact "requires a systematic approach to social impact that focuses on relationships between organizations and the progress toward shared objectives," p. 5.
[6] www.includesnetwork.org/home

in STEM will result in a new generation of STEM talent and leadership to secure our Nation's future economic competitiveness.

The graphic below highlights how the NSF INCLUDES Big Idea will continue to pursue three synergistic approaches to achieve the goal of increasing diversity and inclusion in STEM at a national scale.



Goals

NSF INCLUDES investments target the following three strategies:

1. *Support Research on Broadening Participation (BP) in STEM:* Synthesize and build the research base for broadening participation in STEM and foster the spread and adaptation of proven effective practices.
2. *Develop Shared Goals and Objectives:* Support stakeholders as they identify shared goals and objectives, including those from specific STEM disciplines.
3. *Build the NSF INCLUDES National Network:* Support local and regional, discipline-specific, and crosscutting multi-stakeholder partnerships and networks as part of the NSF INCLUDES National Network.

FY 2022 Investments

In FY 2022, NSF plans to invest $46.50 million in NSF INCLUDES, with funds stewarded by EHR.

<u>Support Research on Broadening Participation in STEM</u>

NSF INCLUDES will continue to support research on broadening participation in STEM through NSF INCLUDES Alliances and NSF's existing BP portfolio[7]. This research is necessary to document successful practices and build an evidence-based understanding of what works to promote success of all individuals in STEM. NSF INCLUDES also supports the dissemination and adaptation of proven strategies—and the

[7] www.nsf.gov/od/broadeningparticipation/bp_portfolio_dynamic.jsp

study of these activities—for expanding the use of innovative BP practices. NSF INCLUDES pilot projects, planning grants, and supplements serve as connectors to NSF INCLUDES Alliances and the NSF INCLUDES National Network. Twenty-nine successful planning grants awarded in FY 2020 and FY 2021 are expected to yield strong cohorts of Alliance proposals in FY 2022 and the additional funding in FY 2022 will enable NSF to increase the number of meritorious Alliance awards that can be funded. These new alliances will strengthen the program portfolio and expand impact by addressing new disciplines and challenges in broadening participation.

Shared Goals and Objectives

- NSF will provide ongoing funding to the NSF INCLUDES Coordination Hub to oversee the implementation of a system of measurement, communication, and mutually reinforcing activities across the NSF INCLUDES National Network. With additional funding in FY 2022, NSF INCLUDES will expand the scope and diversity of the Hub's activities.
- The NSF INCLUDES developmental evaluation was completed in FY 2020, and the scope of work for a comprehensive formative evaluation is being finalized. Formative evaluation activities will start in FY 2021. The NSF INCLUDES Shared Measures System compiles and communicates information about the progress that initiatives are making with broadening participation in STEM education and careers. The Shared Measures Framework, which is a component of the Shared Measures System is now complete. Refinement of other components of the Shared Measures System, such as the data collection tools and dashboard for display of data is in progress and will continue into FY 2022. A shared measures working group convenes regularly to provide feedback on the shared measures system and proposed common data collection protocols/procedures. Additional funding in FY 2022 will allow for enhancements of the Shared Measure Systems and accelerate its completion.

NSF INCLUDES National Network

- NSF will support connections of existing NSF BP programs and other NSF-funded projects that support the NSF INCLUDES vision through the NSF INCLUDES National Network. The National Network currently has nearly 2,000 members.
- NSF will regularly convene principal investigators of NSF INCLUDES projects (virtually and face-to-face) and its growing network of federal partners to discuss BP challenges, proposed strategies, scaling mechanisms, common metrics, and the feasibility of sustaining projects. Additional funding in FY 2022 will expand the NSF INCLUDES National Network and allow implementation of collaborative activities with federal partners.