

**Statement of Juliane Baron, Executive Director  
Federation of Associations in Behavioral and Brain Sciences**

**FY 2023 Appropriations for the National Science Foundation**

**submitted for the record to the**

**United States House of Representatives  
Committee on Appropriations  
Subcommittee on Commerce, Justice, Science, and Related Agencies**

**Honorable Matt Cartwright, Chairman  
Honorable Robert B. Aderholt, Ranking Member**

**May 13, 2022**

Chairman Cartwright, Ranking Member Aderholt, and Members of the Subcommittee:

The Federation of Associations in Behavioral and Brain Sciences (FABBS) is grateful for the opportunity to submit testimony for the record in support of the National Science Foundation (NSF) budget for fiscal year (FY) 2023. FABBS represents twenty-seven scientific societies and over fifty university departments whose members and faculty share a commitment to advancing knowledge of the mind, brain, and behavior. As a leading member of the Coalition for National Science Funding, **FABBS joins the broader scientific community in urging Congress to fund NSF with at least \$11 billion in FY 2023.**

NSF-funded research pays long-term dividends in innovation and technologies driving our economy, national security, well-being, and other areas of significant importance to our nation. In addition, NSF research and programs provide the tools to develop a workforce equipped for the challenges and technologies of the future and foster the next generation of scientists - with a commitment to broad participation – whose work will keep this country at the forefront of discovery.

We are grateful for the four percent increase provided to NSF in the FY 2022 omnibus spending legislation. Nonetheless, NSF needs more consistent and ambitious funding increases to meet our country's needs and to re-invigorate federal research and development at a time when our global competitors are looking to surpass American investments. Funding for the NSF has remained stagnant over the past decade despite established bipartisan and bicameral support for the NSF, including essential contributions to prevent and address COVID-19, spark economic growth, and strengthen national security; and despite evidence that the U.S. has lost standing in international competitiveness.

As the House and Senate move to conference on the America COMPETES Act and the United States Innovation and Competition Act, it is clear that now is the time to increase federal support for the NSF to ensure the future health, security, and economic well-being of our nation. While Congress provides an expanded vision for NSF, the agency requires additional resources to realize

the potential of its existing programs. One out of every four basic research projects at higher learning institutions across the United States is supported by the NSF and the Foundation's merit review process is the international gold-standard. However, in FY 2020, almost \$4 billion worth of proposals were rated very good but were declined due to inadequate resources.

NSF Director Panchanathan has stated that proposals that do receive funding could produce better research outcomes and provide better value by increasing the size and duration of grants. In fact, he has said that NSF could double their budget on the current research and researchers that go unfunded, and "a quadrupling of the funding is just barely enough to be able to take us to all the ideas being unleashed so that we might be far ahead of the competition."

### **Social, Behavioral, and Economic Sciences**

FABBS scientists have a particular interest in the Social, Behavioral and Economics (SBE) Sciences directorate, which provides an estimated 64 percent of the federal funding for fundamental research in SBE sciences at academic institutions across the country.<sup>1</sup> Thus, our fields are heavily dependent on the NSF to inform discoveries from expanding our understanding of the mechanisms of memory underlying brain activity, to contributing to the design and assessing the social and ethical consequences of new technologies.

Findings from the brain and behavioral sciences have extensive reach and applicability. For example, SBE funded researchers studying violent extremism delivered new insights that the national security community is now using to develop more effective strategies to disrupt recruit and counter extremism.

During the COVID-19 pandemic, SBE scientists contributed in many ways, including through the Societal Experts Action Network (SEAN). This partnership between NSF's SBE directorate and the National Academies of Science, Engineering, and Medicine provided actionable responses to urgent policy questions. Consulting leading researchers in the social, behavioral, and economic sciences, SEAN has published guidance to inform more effective public policy.<sup>2</sup> The National Science Foundation's ability to conduct rapid-response programs such as SEAN is just one example of the many ways in which NSF is uniquely suited to capitalize on scientific discovery for the betterment of society.

SBE is also home to the National Center for Science and Engineering Statistics (NCSES), a federal statistical agency that provides statistical information about the United States' science and engineering (S&E) enterprise. NCSES collects, analyzes, and disseminates data on research and development (R&D), the S&E workforce, the condition and progress of science, STEM education, and U.S. competitiveness in science, engineering, and technology R&D.

### **Technology, Innovation, and Partnerships**

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<sup>1</sup> [https://www.nsf.gov/about/budget/fy2023/pdf/74\\_fy2023.pdf](https://www.nsf.gov/about/budget/fy2023/pdf/74_fy2023.pdf)

<sup>2</sup> <https://www.nationalacademies.org/our-work/societal-experts-action-network>

On March 16, NSF officially launched a new Directorate for Technology, Innovation, and Partnerships (TIP). This exciting new venture will take a cross-cutting approach to speed the translation of basic research to make a difference in American's lives. By building on existing multidisciplinary programs, such as the [Convergence Accelerator](#), TIP will integrate the expertise of all NSF directorates to spearhead new use-inspired research.

To maximize the benefits of the TIP directorate, NSF must make sure to take full advantage of the behavioral and brain sciences. All of the directorate's target focuses, such as clean energy, quantum science, artificial intelligence, supercomputing, etc., have human components. Whether it is optimizing the user interface for a new technology or finding the most effective way to communicate with lay audiences, brain and behavioral scientists should be included to help maximize the return on investment for these new programs.

Substantial, sustained funding increases will allow NSF to realize the full potential of the TIP directorate by investing in critical new programs while bolstering the existing investments in basic research – including in the social, behavioral, and economic sciences – which underly future societal, economic, and technological advances.

In addition to receiving support from SBE, FABBS members appreciate critical funding from the Computer and Information Science and Engineering Directorate (CISE), which funds research on topics such as human-technology interaction and cyber-assisted learning, the Biological Sciences (BIO) Directorate, which funds research on topics such as sleep and circadian rhythms and sex differences in responses to stress, and the Education and Human Resources (EHR) Directorate, which funds research on increasing America's human capital through effective education in science, technology, engineering and mathematics. EHR is especially vital to expanding participation in science through programs such as S-STEM, which provides scholarships to enable low-income students with academic ability, talent, or potential to pursue successful careers in promising STEM fields.

Increasing federal investment in fundamental scientific research across all sciences is critical to ensuring the future prosperity, security, and health of our nation and its people. **We urge you to provide NSF with at least \$11 billion for FY 2023.** Along with the broader scientific community, we believe that increased funding for fundamental scientific research would set the NSF on a path to yield transformative benefits to the country. We thank you in advance for your commitment to robust funding in FY 2023 and efforts to complete the budget in a timely manner.

Thank you for considering this testimony.

**FABBS Member Societies:**

Academy of Behavioral Medicine Research, American Educational Research Association, American Psychological Association, American Psychosomatic Society, Association for Applied Psychophysiology and Biofeedback, Association for Behavior Analysis International, Behavior

Genetics Association, Cognitive Neuroscience Society, Cognitive Science Society, Flux: The Society for Developmental Cognitive Neuroscience, International Congress of Infant Studies, International Society for Developmental Psychobiology, National Academy of Neuropsychology, The Psychonomic Society, Society for Behavioral Neuroendocrinology, Society for Computation in Psychology, Society for Judgement and Decision Making, Society for Mathematical Psychology, Society for Psychophysiological Research, Society for the Psychological Study of Social Issues, Society for Research in Child Development, Society for Research in Psychopathology, Society for the Scientific Study of Reading, Society for Text & Discourse, Society of Experimental Social Psychology, Society of Multivariate Experimental Psychology, Vision Sciences Society

**FABBS Affiliates:**

APA Division 1: The Society for General Psychology; APA Division 3: Experimental Psychology; APA Division 7: Developmental Psychology; APA Division 28: Psychopharmacology and Substance Abuse; Arizona State University; Binghamton University; Boston College; Boston University; California State University, Fullerton; Carnegie Mellon University; Duke University; East Tennessee State University; Florida International University; George Mason University; George Washington University; Georgetown University; Harvard University; Indiana University Bloomington; Johns Hopkins University; Lehigh University; Massachusetts Institute of Technology; Michigan State University; New York University; North Carolina State University; The Ohio State University, Center for Cognitive and Brain Sciences; Pennsylvania State University; Princeton University; Purdue University; Rice University; Southern Methodist University; Syracuse University; Temple University; Texas A&M University; Tulane University; University of Arizona; University of California, Berkeley; University of California, Irvine; University of California, Los Angeles; University of California, Riverside; University of California, San Diego; University of Chicago; University of Delaware; University of Illinois at Urbana-Champaign; University of Iowa; University of Maryland, College Park; University of Michigan; University of Minnesota; University of Minnesota, Institute of Child Development; University of North Carolina at Greensboro; University of Oregon; University of Pennsylvania; University of Texas at Austin; University of Texas at Dallas; University of Virginia; University of Washington; Virginia Tech; Wake Forest University; Washington University in St. Louis; Western Kentucky University; Yale University