



April 19, 2021

The Honorable Jeanne Shaheen
Chair
Subcommittee on Commerce, Justice,
Science, and Related Agencies
U.S. Senate Committee on Appropriations
Washington, D.C. 20510

The Honorable Jerry Moran
Ranking Member
Subcommittee on Commerce, Justice,
Science, and Related Agencies
U.S. Senate Committee on Appropriations
Washington, D.C. 20510

Dear Chair Shaheen and Ranking Member Moran,

As the Subcommittee begins deliberations on the Fiscal Year 2022 Commerce, Justice, Science, and Related Agencies Appropriations bill, the Coalition for National Science Funding writes to respectfully request that the National Science Foundation (NSF) receive an appropriation of **at least \$10 billion** in FY 2022. We are an alliance of over 140 professional organizations, universities, and businesses, who are united by a concern for the future vitality of the national science, mathematics, and engineering enterprise of the United States.

We encourage Congress to make bold investments in the NSF this year, setting the agency on a course to advance domestic innovation and to keep pace with investments other countries are making in research and development. According to the National Science Board's (NSB) 2020 Science and Engineering Indicators, "where once the U.S. was the uncontested leader in science and engineering, we are now playing a less dominant role." The United States was the largest R&D performer in 2017, followed by China. However, as the NSB report notes, "Asian countries, most notably China, have heavily contributed to the overall increase in worldwide R&D expenditures, with China accounting for almost one-third, or 32 percent, of the total global growth between 2000 and 2017." At the same time, the U.S. accounted for 20 percent of growth. If we want to remain at the forefront of scientific discovery and continue leading the world in science and engineering and reclaim our role as the "uncontested leader," we must invest strategically and robustly now.

There is bipartisan support for dramatically increasing funding for NSF. For example, in the fiscal year 2021 National Defense Authorization Act, conferees stated in their report that "the NSF is critical to the expansion of the frontiers of scientific knowledge and advancing American technological leadership in key technologies...to achieve its mission in the face of rising challenges from strategic competitors, the NSF should receive a significant increase in funding."

In addition to addressing global competition, NSF needs additional resources to support high-quality research and education proposals that are submitted each year but cannot be



funded. Every year, NSF declines thousands of research ideas, and nearly \$3 billion worth of those proposals are rated very good but declined due to inadequate resources.

It is also essential for the United States to invest in NSF's education research and workforce programs, including K-12 STEM education, undergraduate and graduate education and training, broadening participation, and informal education programs. These programs are essential to countering the dual-pronged concerns that international competitors are recruiting U.S. educated talent and more effectively developing their own STEM workforces. For the United States to remain a global leader in scientific research, engineering, and technology development, the nation must provide greater investment in its people, including women and individuals from other groups traditionally underrepresented in STEM fields.

NSF is also playing an integral role in our nation's response to and recovery from the coronavirus pandemic. Agency-funded researchers are improving our understanding of the virus; developing predictions of its spread; and mitigating its impacts on public health, society, and the economy. NSF investments – made over decades – in numerous technologies are being deployed now to fight the coronavirus. For example, advances in artificial intelligence and big data allow researchers to map the spread of the coronavirus and share data with healthcare professionals, state and local leaders, and the public. NSF-supported research in molecular biology and microscopy contributed to the development of COVID vaccines. NSF engineering, social and behavioral science work underpins our vaccine delivery technology and public understanding of risk. As NSF supports 25 percent of all federally funded academic fundamental research at our nation's colleges and universities, the agency will play a key role in rebuilding our economy after the pandemic and ensure that we are better prepared for the next public health crisis.

Finally, CNSF encourages consideration of additional support for NSF's scientific facilities, research infrastructure, and workforce development. NSF's facilities are the bedrock of many scientific disciplines, including the construction of groundbreaking telescopes, delivering the future of high-performance computing infrastructure, and pioneering fundamental physics experiments. NSF could also play a significant role, as it did in previous economic recovery periods, in investing in academic research facilities modernization.

For these reasons, we respectfully request your support to ensure that the National Science Foundation receives at least \$10 billion for FY2022. Thank you for considering our views. Please do not hesitate to let us know how CNSF can be a resource as you move forward with the appropriations process.

Sincerely,
The Coalition of National Science Funding

cc: Chair Cartwright and Ranking Member Aderholt



American Anthropological Association
American Association of Geographers
American Association of Physicists in Medicine
(AAPM)
American Association of Physics Teachers
American Astronomical Society
American Chemical Society
American Educational Research Association
American Geophysical Union
American Institute of Biological Sciences
American Institute for Medical and Biological
Engineering (AIMBE)
American Institute of Physics
American Mathematical Society
American Physical Society
American Physiological Society
American Political Science Association
American Psychological Association
American Society of Agronomy
American Society of Civil Engineers
American Society for Engineering Education
American Society of Mechanical Engineers
American Society for Microbiology
American Society for Pharmacology and
Experimental Therapeutics
American Society of Plant Biologists
American Sociological Association
American Statistical Association
Arizona State University
Association for Psychological Science
Association for Women in Mathematics
Association of American Medical Colleges
Association of American Universities
Association of Public and Land-grant
Universities
Association of Science and Technology Centers
(ASTC)
Atlanta University Center Consortium
Battelle
Biophysical Society
Boise State University
Boston University

Brandeis University
Brown University
Caltech
Cavarocchi Ruscio Dennis Associates
Coalition for Academic Scientific Computation
Columbia University
Computing Research Association
Consortium of Social Science Associations
Cornell University
Council of Graduate Schools
Council of Scientific Society Presidents
Council on Undergraduate Research
Crop Science Society of America
Dartmouth College
Duke University
Ecological Society of America
Entomological Society of America
Eversole Associates
Federal Science Partners
Federation of Associations in Behavioral &
Brain Sciences
Federation of American Societies for
Experimental Biology
Florida State University
Forge Policy Solutions
Geological Society of America
George Mason University
Georgia Institute of Technology
Harvard University
Incorporated Research Institutions for
Seismology (IRIS)
Indiana University
Lehigh University
Lewis-Burke Associates LLC
Linguistic Society of America
Massachusetts Institute of Technology
Mathematical Association of America
Materials Research Society
Michigan State University
Michigan Technological University
Mineralogical Society of America
Museum of Science, Boston



National Association of Marine Laboratories
National Communication Association
National Postdoctoral Association
Natural Science Collections Alliance
New York University
Northeastern University
Northern Illinois University
OSA-The Optical Society
Pennsylvania State University
Population Association of America
Princeton University
PsySiP: Psychology of Science in Policy
Research!America
Rutgers, The State University of New Jersey
SACNAS
SAGE Publishing
Saint Louis University
Silicon Valley Leadership Group
Society for American Archaeology
Society for Industrial and Applied
Mathematics
Society for Industrial and Organizational
Psychology
Society for Neuroscience
Society for Research in Child Development
Society for the Psychological Study of Social
Issues (SPSSI)
Soil Science Society of America

SPIE
Stevens Institute of Technology
Stony Brook University
The Bagley Group
Tufts University
UCLA
UNAVCO
University of California System
University of Cincinnati
University of Colorado Boulder
University of Florida
University of Illinois System
University of Iowa
University of Michigan
University of Oklahoma
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