March 8, 2024

The Honorable Hal Rogers
Chair
Subcommittee on Commerce, Justice, Science, and Related Agencies
U.S. House Committee on Appropriations
Washington, D.C. 20515

The Honorable Matt Cartwright
Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
U.S. House Committee on Appropriations
Washington, D.C. 20515

Dear Chair Rogers and Ranking Member Cartwright,

As the Subcommittee considers the Fiscal Year 2025 (FY25) Commerce, Justice, Science, and Related Agencies Appropriations bill, the Coalition for National Science Funding (CNSF) writes to respectfully urge the Committee to appropriate at least $11.9 billion for the National Science Foundation (NSF). CNSF is an alliance of over 140 professional organizations, universities, and businesses, who are united by a commitment to the future vitality of the science, mathematics, and engineering enterprise of the United States.

NSF funding is critical to ensure our innovation ecosystem continues to lead the world in the emerging technologies that are key to our national defense. In 2022, Congress reauthorized NSF for 5 years through the CHIPS and Science Act (P.L. 117-167), and targeted $16.7 billion for the agency in FY25. We understand the difficult fiscal climate. However, the FY24 level of funding for NSF fell far below our competitiveness needs. In fact, the agency was cut by more than 5 percent or almost $500 million from what NSF was provided in FY23. If you consider what was provided in FY23 through supplemental funding, the cut is even more significant. Below we outline these needs across the research, construction, and education accounts at NSF.

Emerging Technology: NSF is the leading federal agency advancing emerging technology through foundational science and engineering. Our nation's competitiveness depends on advancements in artificial intelligence, quantum information science, advanced wireless research, biotechnology, and other areas critical to national security. NSF is at the center of research and workforce development in these areas, which must be dramatically scaled up to address our competitiveness and security needs.

Regional Innovation: NSF is transforming regional economies and communities through signature programs such as the Regional Innovation Engines and the Directorate for Technology, Innovation, and Partnerships (TIP). After a lengthy competition, the first 10 Engines were recently awarded to teams around the country. The program needs growth to enable it to reach its full potential and impact these communities. NSF also supports communities through many other programs that focus on engaged research, impact, and research translation. Opportunities abound to expand these activities within TIP and NSF's other research directorates. For example, in 2023, NSF held a

planning competition for wildfire partnerships and is now poised for a full program that would build resilience and empower communities with new tools and approaches.

Workforce: Investments in NSF lead to the innovations and technologies that drive our economy and inspire and train the future STEM workforce. In FY22 alone, NSF supported more than 43,000 graduate students (representing more than 25% of all federally supported graduate students in STEM) and 6,000 postdoctoral associates to continue their high-skilled training while advancing NSF-funded research projects. Additionally, in FY22 NSF STEM education projects directly impacted 220,000 K-12 students, teachers, and undergraduate students, and indirectly inspired millions of future innovators through science educational resources. It is imperative that NSF's budget receives sustainable growth to address our national training and workforce needs.

Life-changing Discoveries: NSF also supports science and engineering research that underpins discoveries leading to new cures, drugs, and diagnostic tools to detect diseases and save lives. Magnetic resonance imagining (MRI), DNA analysis, and organ donor matching are three medical advancements attributed to NSF. For more than 70 years, NSF work has improved health outcomes.

Scientific Infrastructure: NSF is responsible for maintaining research infrastructure and facilities critical for enabling cutting-edge scientific research. NSF has recently launched a pilot program to improve access to artificial intelligence computing resources (the National AI Research Resource), but it and other cutting-edge AI work will need additional funding to maintain U.S. leadership in AI. There is a major backlog in infrastructure projects that would transform science and engineering still waiting to be built, including the next generation of extremely large telescopes, research vessels including one to explore the Antarctic in a critical period for sea level rise, the next-generation supercomputer, and many worthy midscale research infrastructure.

Science and Engineering Ecosystem Support: Beyond all the needs outlined above, NSF is the only federal agency supporting foundational science and engineering across disciplines. Core programs power our scientific ecosystem, support early career scientists, and enable initial discoveries that feed translational programs. This ecosystem lies at the heart of our nation's competitiveness and must be protected. NSF's core programs also need resources to expand award sizes to address new research security, public access, and other directives that raise the cost of research.

For these reasons and more, NSF needs major growth in FY25 appropriations. We call on Congress to strongly support NSF, provide at least $11.9 billion, and set NSF on a funding trajectory that will meet the major challenges our nation faces and ensure we have the research, people, and infrastructure to sustain our science and technology ecosystem.

Thank you for considering our input. Please do not hesitate to call on CNSF as a resource as you move forward with the appropriations process.

Sincerely,

The Coalition for National Science Funding

American Anthropological Association
American Association for the Advancement of Science
American Association for Dental, Oral, and Craniofacial Research (AADOCR)
American Association of Geographers
American Association of Physics Teachers
American Astronomical Society
American Chemical Society
American Crystallographic Association
American Educational Research Association
American Economic Association
American Geophysical Union
American Institute for Medical and Biological Engineering (AIMBE)
American Institute of Biological Sciences
American Mathematical Society
American Physical Society
American Political Science Association
American Society for Biochemistry and Molecular Biology
American Society for Microbiology
American Society for Pharmacology and Experimental Therapeutics
American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America
American Society of Civil Engineers
American Society of Plant Biologists
American Sociological Association
American Statistical Association
American Society of Mechanical Engineers
Association of American Medical Colleges
Association of American Universities
Association for Psychological Science
Association for Women in Mathematics
Association of Public and Land-Grant Universities
Association of Research Libraries
Association of Science and Technology Centers
Atlanta University Center Consortium
Battelle Memorial Institute
Biophysical Society
Boise State University
Bose McKinney & Evans, LLP
Boston University
Brown University
Coalition for Academic Scientific Computation
Computing Research Association
Consortium of Social Science Associations
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Council on Undergraduate Research
Dartmouth College
Duke University
Ecological Society of America
Entomological Society of America
Eversole Associates
Federation of American Scientists
Federation of Associations in Behavioral & Brain Sciences
Forge Policy Solutions
Geological Society of America
George Mason University
George Washington University
Georgia Institute of Technology
Harvard University
Harvey Mudd College
IEEE-USA
Indiana University
Lehigh University
Lewis-Burke Associates, LLC
Materials Research Society
Massachusetts Institute of Technology
Michigan Technological University
National Association of Marine Laboratories
National Postdoctoral Association
Natural Science Collections Alliance
Northern Illinois University
Northwestern University
The Ohio State University
Optica (formerly OSA)
Oregon Institute of Technology
Pennsylvania State University, Office of the Senior Vice President for Research
Princeton University - Office of Government Affairs
Population Association of America/Association of Population Centers
Rochester Institute of Technology
Rutgers University
Sage Publishing, Inc.
Saint Louis University
Seismological Society of America
Society for Industrial and Applied Mathematics

Society for Industrial and Organizational Psychology
Society for Neuroscience
Society for Research in Child Development
SPIE
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