

Testimony of Research!America to the House Committee on Appropriations Subcommittee on
Commerce, Justice, Science, and Related Agencies Concerning FY16 Appropriations for NSF
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Research!America, a public education and advocacy alliance committed to strengthening our nation's scientific enterprise and speeding the pace of medical progress, appreciates your stewardship over such a critical subset of our nation's discretionary funding priorities. As the subcommittee begins the process of prioritizing FY16 funding, we request that the National Science Foundation (NSF) receive at least \$7.7 billion to support our nation's continued global leadership in the scientific arena.

NSF plays a pivotal role in advancing basic and social sciences research, as well as mathematics, computer science and other crucial knowledge-seeking disciplines. The funding, or lack of, allocated to NSF bears on our nation's ability to innovate to a stronger economy, sustain our global leadership in an environment increasingly shaped by complex scientific and technological advancements, meet our solemn obligations to our troops, and bolster national security. The stakes truly are that high.

NSF as an innovation incubator

NSF supports research in fundamental sciences and engineering to keep the United States at the forefront of scientific discovery. The source of approximately 21 percent of all federally funded basic research, NSF funds over 300,000 scientists, engineers, educators and basic researchers through more than 11,000 grants annually. The fruits of NSF basic research are integral to our nation's innovation cycle. Countless innovations that Americans depend on every day, like laser technologies and internet search functions, are products of NSF-supported research. NSF has also funded the work of more than 200 Nobel Prize winners over the past sixty years.

NSF as a conduit to evidence-based, strategic use of government dollars

NSF's support of social sciences research is grossly underestimated in its value to taxpayers, the well-being of children and other vulnerable populations, and the prosperity of our nation. Designing and executing social services programs without an evidence base is akin to shooting in the dark, wasting resources and comprising the mission. When you think of child welfare programs, the need for social sciences research is crystal clear. It would be tragic if programs inadvertently created disincentives for proper foster care or underperformed relative to their potential in preventing child abuse, for example. And social sciences research enables a better understanding of international markets, boosting the ability of businesses to succeed in our globalized economy. Such research is also crucial in maintaining cybersecurity and fighting terrorism. These examples are far from exhaustive, but they are representative. Our nation simply cannot afford to dismiss the importance of social sciences research.

NSF as an educator

In an era when a capable scientific workforce is crucial, NSF funds the education and training of future STEM staff and leaders through various K-12, undergraduate and graduate education programs. The only agency with a federally-mandated mission requiring incorporation of science and engineering education in all funded research, NSF helps to develop skilled

researchers who not only extend scientific innovations but also educate future generations. For more than 20 years, the Advanced Technological Education program (ATE) has offered scientific educational support and opportunities to more than 54,000 undergraduate and associate degree students via almost 300 active grants. Without sufficient federal funding, fundamental educational programs like ATE are at risk for cutbacks which will weaken the future scientific workforce of America and hinder our country's growth as a global innovator.

Research!America appreciates the difficult task facing the subcommittee as it seeks to simultaneously confront the budget deficit, strengthen the United States, and promote the well-being of Americans. We firmly believe that fostering science and technology-driven innovation is a sound strategy for addressing all three objectives, and that robust funding for NSF should be considered a top strategic priority for the United States.

Thank you for your leadership and consideration.