

Support funding for the National Science Foundation (NSF) in Fiscal Year (FY) 2018

From: The Honorable G. K. Butterfield

Sent By: Dennis.Sills@mail.house.gov

Date: 3/21/2017

Support funding for the National Science Foundation (NSF) in Fiscal Year (FY) 2018

This is a programmatic request

Submission instructions will be provided

Supported by: Association of American Universities (AAU), Association of Public and Land-grant Universities, IEEE-USA

Current Cosigners: Rep. Beatty, Rep. Bonamici, Rep. Cárdenas, Rep. Castro, Rep. Clay, Rep. Cleaver, II, Rep. Garamendi, Rep. Higgins, Rep. Keating, Rep. Langevin, Rep. Norcross, Rep. Pascrell, Jr., Rep. Rush, Rep. Schiff, Rep. Swalwell, Rep. Takano, Rep. Tsongas, Rep. Vargas, Rep. Yarmuth

Dear Colleague:

We urge you to join us in sending the attached letter to the Chairman and Ranking Member of the Commerce, Justice, Science, and Related Agencies Appropriations Subcommittee to request that the National Science Foundation (NSF) receive at least \$8 billion in funding for Fiscal Year (FY) 2018.

Millions of American lives are improved by the research and inventions made possible from the NSF. We are all kept safer through advanced chemical and weapons screening technology. At the workplace we have benefitted from the ability to communicate with clients and businesses using high-definition video conferencing. At home we are able to enjoy low-cost, renewable energy through solar technology. Abroad, our military has been protected through advanced radar technology and biological weapons sensors. NSF research funding makes those types of breakthroughs possible because the NSF is the only federal agency that supports essential education and research across all science and engineering fields.

Investing in the NSF is critical to our nation remaining competitive in the global economy. Our country is falling behind our competitors in key areas of education including in science, technology, engineering, and mathematics (STEM); our nation ranks 38th in math and 24th in science performance when compared with our peers. With a projected shortage by 2020 of five million STEM professionals, we must prepare more Americans to succeed in high technology industries by supporting research and training through the NSF. One out of every four basic research projects at institutions of higher learning across the U.S. is supported by the NSF.

The value of NSF research transcends consumer technologies and workforce training because discoveries made possible by the NSF help grow American businesses and our economy. Basic research from NSF-funded projects has been spun off into new companies in areas like liquid cooling systems and more efficient batteries. The NSF has helped shape major industries like defense and renewable energy.

We respectfully request your support to ensure that the NSF receives at least \$8 billion for Fiscal Year (FY) 2018. We feel this amount is the minimum level of funding needed to prepare future generations to help our nation remain a world economic leader and to reflect the rising costs of research. If you wish to sign, please contact Dennis Sills in Representative Butterfield's office at dennis.sills@mail.house.gov or Blake Deeley in Representative McKinley's office at blake.deeley@mail.house.gov. **The deadline to sign the letter is March 24, 2017 at 1:00 p.m. The full text of the Appropriations letter is included below.**

Thank you very much.

Very truly yours,

G. K. BUTTERFIELD
Member of Congress

DAVID B. MCKINLEY, P.E.
Member of Congress

March XX, 2017

The Honorable John Culberson
Chairman
Subcommittee on Commerce, Justice,
Science, and Related Agencies
H-310, The Capitol
Washington, D.C. 20515

The Honorable José Serrano
Ranking Member
Subcommittee on Commerce, Justice,
Science, and Related Agencies
2354 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Culberson and Ranking Member Serrano:

We write to respectfully request that the National Science Foundation (NSF) receive at least \$8 billion in funding in the Fiscal Year (FY) 2018 Commerce, Justice, Science, and Related Agencies Appropriations bill.

The NSF is an independent federal agency created by Congress in 1950 to promote the progress of science, secure the national defense; and to advance the nation's health, prosperity, and welfare. Ensuring the NSF has robust resources to carry out its mission has never been more important. More than 20 percent of jobs in our country require training in science, technology, engineering, and mathematics (STEM) fields which are projected to experience the highest growth in coming years. At the same time the United States lags behind other nations in STEM training; our nation ranks 38th in mathematics and 24th in science performance. Nearly one-third of our country's adults have less than basic mathematics skills. To remain competitive

globally we must invest in the NSF as it is the only federal agency specifically responsible for supporting essential education and research across all science and engineering fields.

According to the Center on Education and the Workforce, there will be a shortage of five million STEM professionals by 2020. To meet our nation's workforce needs, support research and development, and compete in the world economy, Congress must fully fund the NSF. One out of every four basic research projects at higher learning institutions across the U.S. is supported by the NSF. All NSF grant proposals are critically reviewed to ensure they meet the intellectual merit and broader impacts criteria. The NSF's expert merit review process is the international gold-standard for the review and evaluation of grant proposals. The NSF's merit review process relies upon the expertise and knowledge of leading scientists and engineers to ensure that the best research is being funded across the scientific disciplines. Full funding of the NSF will enable 377,170 researchers, including teachers and students across the country, to address some of our society's most pressing concerns through 10,100 individual NSF awards.

NSF research has led to scientific and technological breakthroughs that have generated positive change in society and long-term economic benefits. Many of those discoveries have been expanded upon and applied commercially by domestic companies, benefiting the private sector and spurring our nation's economy. Advanced rechargeable batteries, facial recognition software that can read emotions, and more protective sunscreens are examples of commercial products that have roots with the NSF, have created jobs, and have helped businesses grow. Each day NSF-supported inventions like those that detect chemical and biological weapons and models and management strategies for storms and disaster situations make our lives better and safer. Other breakthroughs have assisted our military through stealth camouflage and helped veterans transition home through advanced trauma research. Scientists supported by the NSF are currently developing breakthroughs including treatments for resistant prostate cancer, sensors to detect lung cancer, new lightweight body armors, and zero resistance energy flows to improve energy efficiency.

The NSF helps support our nation's brightest minds in their endeavors to address our most challenging problems. Funding for the NSF makes investments at all education levels to develop a modern and resourceful workforce that will enable our country to remain competitive in emerging industries.

For these reasons, we respectfully request your support to ensure that the National Science Foundation receive at least \$8 billion for Fiscal Year (FY) 2018. This amount is the minimum level of funding needed to ensure future generations of Americans are prepared to help our nation remain a world economic leader.

Thank you very much.

Very truly yours,

G. K. BUTTERFIELD
Member of Congress

DAVID B. MCKINLEY, P.E.
Member of Congress