

United States Senate

WASHINGTON, DC 20510

May 15, 2017

The Honorable Richard Shelby
Chairman
Subcommittee on Commerce, Justice,
Science, and Related Agencies
U.S. Senate Committee on Appropriations
Washington DC, 20510

The Honorable Jeanne Shaheen
Ranking Member
Subcommittee on Commerce, Justice,
Science, and Related Agencies
U.S. Senate Committee on Appropriations
Washington DC, 20510

Dear Chairman Shelby and Ranking Member Shaheen:

As the Subcommittee begins deliberations on the Fiscal Year 2018 Commerce, Justice, Science, and Related Agencies Appropriations Legislation, 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 United States 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 more than ten thousand 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 just some of the 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 energy efficiency.

The NSF helps support our nation's brightest scientists and engineers 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 level of funding is critical to ensuring that future generations of Americans are prepared to help our nation remain a world economic leader.

Thank you for your consideration of this request.

Sincerely,



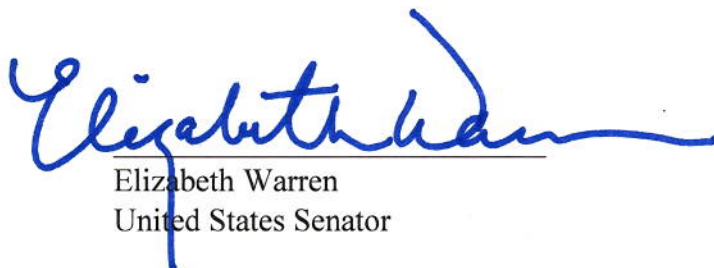
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Elizabeth Warren
United States Senator



Brian Schatz
United States Senator



Dianne Feinstein
United States Senator



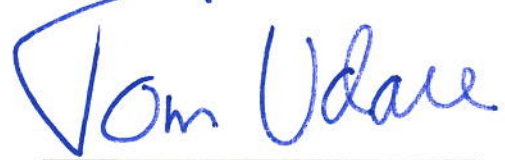
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United States Senator



Richard J. Durbin
United States Senator



Maria Cantwell
United States Senator



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United States Senator



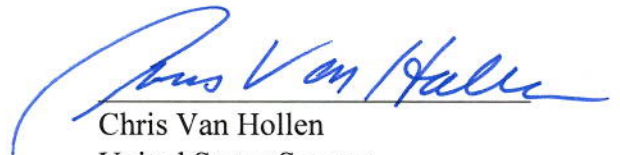
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United States Senator



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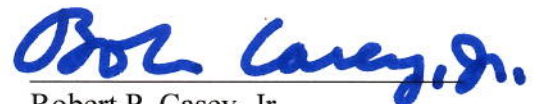
Amy Klobuchar
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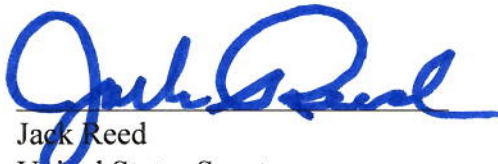
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Robert P. Casey, Jr.
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Jack Reed
United States Senator



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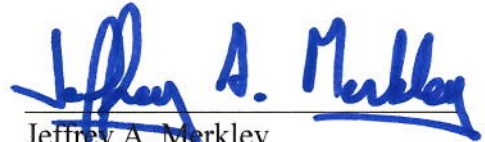
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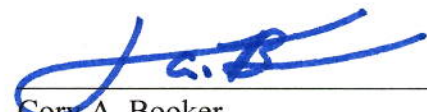
Ron Wyden
United States Senator



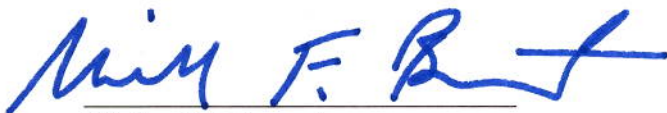
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