EDWARD J. MARKEY
MASSACHUSETTS

COMMITTEES:

COMMERCE, SCIENCE, AND TRANSPORTATION
SMALL BUSINESS AND ENTREPRENEURSHIP
FOREIGN RELATIONS

# United States Senate

SUITE SR-218 RUSSELL BUILDING WASHINGTON, DC 20510-2107 202-224-2742

975 JFK FEDERAL BUILDING 15 NEW SUDBURY STREET BOSTON, MA 02203 617–565–8519

222 MILLIKEN BOULEVARD, SUITE 312 FALL RIVER, MA 02721 508-677-0523

1550 MAIN STREET, 4TH FLOOR SPRINGFIELD, MA 01101 413-785-4610

#### CHAIRMAN:

SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT AND FOREIGN ASSISTANCE, ECONOMIC AFFAIRS, INTERNATIONAL ENVIRONMENTAL PROTECTION, AND PEACE CORPS

U.S. SENATE CLIMATE CHANGE CLEARING HOUSE

# Support funding for the National Science Foundation (NSF) in FY2015

April 7, 2014

### Dear Colleague:

I urge you to join me in sending the attached letter to the Chairman and Ranking Member of the Commerce, Justice, Science, and Related Agencies Appropriations Subcommittee requesting \$7.5 billion in funding for the National Science Foundation (NSF).

Every day we use technologies developed by U.S. innovators. From bar codes at the grocery store to Google, scientific research funded by the NSF has enabled people to live longer, more fulfilling lives while propelling our economy and creating jobs across the country. But we now face a daunting challenge to keep up with foreign countries who are investing more heavily in research and education. We cannot afford to continue to fall further behind in STEM education: our nation ranked 26th in math and 21st in science performance on international assessments in 2012 according to the Organization for Economic Cooperation and Development. We can and must do better.

We must produce one million more STEM professionals in the next decade to keep up with workforce needs in fast growing STEM and heath care occupations. By providing \$7.5 billion to fund the NSF, we can place the nation on an upward trajectory to compete globally and meet workforce demands. The NSF is the only federal agency specifically responsible for supporting essential education and research across all science and engineering fields—a role that is vital to cultivating a workforce capable of keeping pace with global demand. NSF supports nearly one in four federally funded research projects conducted by private and public universities. For science and engineering related fields, the NSF is the primary source of federal support. We must remain committed to strengthening our workforce and competing with countries that are investing their resources in STEM education and innovation.

I urge you to support the NSF by requesting \$7.5 billion to ensure that we continue to develop a reliable pipeline of STEM homegrown talent to remain globally competitive. If you wish sign, please contact John Phillips of Senator Markey's office at 9-2435 or at john phillips@markey.senate.gov

Sincerely,

Edward J. Markey



## April 11, 2014

The Honorable Barbara A. Mikulski Chairwoman Senate Committee on Appropriations S-128 United States Capitol Washington, D.C. 20510

The Honorable Barbara A. Mikulski Chairman Senate Committee on Appropriations Subcommittee on Commerce, Justice Science, and Related Agencies 131 Dirksen Senate Office Building Washington, D.C. 20510 The Honorable Richard C. Shelby Vice Chairman Senate Committee on Appropriations S-146A United States Capitol Washington, D.C. 20510

The Honorable Richard C. Shelby Ranking Member Senate Committee on Appropriations Subcommittee on Commerce, Justice Science and Related Agencies 156 Dirksen Senate Office Building Washington, D.C. 20510

Dear Chairwoman Mikulski and Vice Chairman Shelby,

We write to urge you to include \$7.5 billion in funding for the National Science Foundation (NSF) in the FY2015 Commerce, Justice, and Science, and Related Agencies Appropriations bill.

The future is now. A foundation and fundamental understanding of science, technology, engineering, and mathematics (STEM) is vitally important as we educate the next generation of leaders to compete in the global economy. Demand for highly educated and highly trained professionals in STEM and health care-related fields are at an all-time high. The U.S. must produce one million more STEM professionals in the next decade to keep up with workforce needs in growing STEM fields. Our nation is ranked 26th in math and 21st in science performance. We cannot afford to continue to fall further behind in STEM education.

The NSF is one of our country's most important workforce development initiatives and tools for economic competitiveness. The NSF is the only federal agency specifically responsible for supporting essential education and research across all science and engineering fields—a role that is vital to cultivating a workforce capable of keeping pace with global demand. Nearly one out of every four basic research projects at colleges and universities across the U.S. is supported by the NSF. The NSF awards the majority of its budget on a competitive basis to small groups of researchers at public and private institutions of higher learning through approximately 11,000 new grant awards per year.

Awards from the NSF help enable faculty and students to access the resources they need and support the necessary infrastructure and tools to address some of our society's most pressing concerns. Research funded by the NSF has led to discoveries as small as antifreeze proteins to those as large as new planets. In many cases, the basic research facilitated by the NSF is The

Honorable Barbara A. Mikulski The Honorable Richard C. Shelby April 11, 2014 Page 2

expanded upon and applied commercially by domestic companies benefiting the private sector and the U.S. economy. The applications of NSF research have helped many businesses create

jobs by developing new products from advanced radar systems and next generation high definition videoconferencing to more efficient and affordable solar energy materials and genetically engineered tissues for medical procedures.

We must remain committed to strengthening our workforce and competing with countries that are investing significant resources in STEM education and innovation. We urge you support \$7.5 billion to fund the NSF to ensure that we continue to cultivate STEM talent so our nation remains globally competitive.

Thank you in advance for your consideration of our request.

Sincerely,