Congress of the United States Washington, DC 20515

March 13, 2020

The Honorable Jose Serrano Chairman Subcommittee on Commerce, Justice, Science, and Related Agencies H-307, The Capitol Washington, D.C. 20515 The Honorable Robert Aderholt Ranking Member Subcommittee on Commerce, Justice, Science, and Related Agencies 1016 Longworth House Office Building Washington, D.C. 20515

Dear Chairman Serrano and Ranking Member Aderholt:

We write to respectfully request that the National Science Foundation (NSF) receive an appropriation of at least <u>\$9 billion</u> in the Fiscal Year (FY) 2021 Commerce, Justice, Science, and Related Agencies Appropriations bill.

Now in its 70th year, the NSF is an independent federal agency created by Congress to promote the progress of science, secure the national defense, and to advance the nation's health, prosperity, and welfare. The scientific research and educational programs supported by NSF are integral to the continued success of America's innovation enterprise. NSF funded research has produced transformative scientific discoveries that have led to new industries, products, services, and enhanced the lives of all Americans. For example, NSF-funded research has supported technological advancements in artificial intelligence, advanced manufacturing, quantum information sciences, wireless broadband connectivity, and engineering biology. It has also funded research that addresses the challenges in Science, Technology, Engineering, and Math (STEM) education to ensure that students can adapt to meet future workforce needs. Many more examples of the impact of NSF-funded research are available in the second edition of Transforming the World Through Science.

For the United States to remain a global leader in scientific research, engineering, and technology development, the nation must provide greater investment in its people, including women and racial and ethnic minorities. These critical investments to NSF support programs such as NSF INCLUDES which provides access to research and STEM education opportunities for women and underrepresented minorities, and Established Program to Stimulate Competitive Research (EPSCoR) which has provided similar opportunities to all Americans regardless of where they live in the United States. It is essential for the United States to continue to invest in NSF's education programs, including K-12 STEM education, undergraduate and graduate education and training, and informal education programs.

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In addition to investing in people, the United States must continue to invest in Research and Development (R&D). Competitor nations continue to make great advancements in science and technology due to their significant investment in R&D. Some Asian and European countries are investing heavily in R&D and the STEM education and training of their workforces. According to the 2020 Science and Engineering Indicators report, the U.S. investment in R&D of \$548 billion was closely followed by China at \$495 billion – accounting for 25% and 23%, respectively in R&D funding worldwide. The National Science Board (NSB) expects China to surpass the United States in R&D investments in the near future. To remain globally competitive, the United States must continue to invest in fundamental scientific research just like the research that NSF funds across the scientific disciplines.

NSF is the only federal research agency that supports fundamental research in these important fields – biology, computer science, economics, engineering, educational research, geosciences, mathematics, and social and behavioral sciences. Given the breadth of the research funded by NSF, the Congress must appropriate at least \$9 billion for the agency in FY 2021. It is important to note that 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 and 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 an additional 50,000 researchers, including teachers and students nationwide, to address some of our society's most pressing concerns through more than 11,000 competitive awards and 8,400 research grant awards.

For these reasons, we respectfully request your support to ensure that the National Science Foundation receive at least \$9 billion for Fiscal Year (FY) 2021. This amount is the minimum level of funding needed to ensure future generations of Americans are prepared to help our nation remain the world economic leader.

Thank you very much.

Very truly yours,

Member of Congress

Member of Congress

National Science Foundation FY 2021 Appropriations Letter Co-Signers

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- 4. The Honorable Nanette Diaz Barragán
- 5. The Honorable Joyce Beatty
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- 63. The Honorable Al Green
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