OPENING STATEMENT

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House Committee on Science, Space, and Technology
"An Overview of the National Science Foundation Budget Proposal for Fiscal Year 2019"
March 15, 2018

Thank you, Chairman Smith and Ranking Member Johnson, for holding this important hearing on the National Science Foundation's Fiscal Year 2019 Budget Proposal, and thanks to our witnesses, Dr. Córdova and Dr. Zuber, for being here this morning.

Authorizing and overseeing NSF is one of the most important responsibilities of our committee and one that I take very seriously. NSF is the second-largest federal funder of basic research in the U.S., and its impact on our education system, economy, national security, and global competitiveness is immense.

This year's NSF budget leaves much to be desired. While I am pleased to see a small increase in the Research and Related Activities Account, the main source of grants to universities and research institutions, I have concerns about how those funds are allocated among the six research directorates. I am also concerned about the fact that the total budget request, close to \$7.5 billion, is the same as the appropriated level in Fiscal Year 2017, which is significantly lower than the Foundation's peak appropriation of \$7.7 billion in 2010. The result of flat funding is a slow decline in purchasing power that leaves NSF unable to fund many of its top-rated proposals and forced to make difficult decisions about critical research facilities.

While most research directorates received flat funding in the FY19 request, the Social, Behavioral, and Economic Sciences directorate, or SBE, was targeted for an effective cut of 11%. As anyone who watches this committee knows, especially Chairman Smith, I have been an extremely forceful and outspoken advocate for SBE research funding. So it should come as no surprise that I strongly oppose this cut. According to a 2017 National Academies report on the value of SBE to the nation, "Nearly every major challenge the United States faces—from alleviating unemployment to protecting itself from terrorism—requires understanding the causes and consequences of people's behavior." Underfunding this research could have dire consequences.

Undervaluing the Social, Behavioral, and Economic Sciences also has the potential to undermine the effectiveness of at least one of the Ten Big Ideas. The "Future of Work at the Human-Technology Frontier" Idea was developed within the SBE directorate and will depend heavily on the social sciences for its success. However, primary responsibility for this Idea was given to the Engineering Directorate. With Engineering running the program and with reduced funding levels for SBE, we reinforce the false notion that social and behavioral questions are less important in this area of inquiry.

I would like to make another point about the Ten Big Ideas. While I support interdisciplinary and convergent research, and I support allocating funding to such initiatives, which this budget does

for the first time, I do not support doing so at the expense of funding core disciplinary research. Convergence initiatives have the potential to amplify the impact of research in the core disciplines. But if we scale back directorate funding, we risk eroding the disciplinary expertise that must come together to make convergence research successful.

At a time when we have allowed NSF's purchasing power to decline with years of flat funding, and when we have significant additional budgetary authority available, now is a critical time to increase the NSF budget. At a bare minimum, we should be making inflationary increases to all research directorates, and should not force funds for the Ten Big Ideas to come at the expense of disciplinary research.

Our federal R&D expenditures as a percentage of GDP are at their lowest point since at least the 1950s and we have fallen well behind our global peers, currently ranking 10th globally. If we continue to underfund federal research agencies, we risk letting our scientific enterprise atrophy, doing irreparable harm to our global competitiveness and our future economic success.

Thank you and I yield back.