

Chairwoman Eddie Bernice Johnson (D-TX)

Research and Technology Subcommittee Hearing: National Science Foundation: Advancing Research for the Future of U.S. Innovation, Part II

May 6, 2021

Thank you Chairwoman Stevens and Ranking Member Waltz for holding this second hearing on *the NSF for the Future Act*. And thank you to our esteemed witnesses for joining us this morning.

U.S. universities continue to lead the world in cutting edge fundamental research. While universities rely on several sources of funding for research, the largest single source is the Federal government, including the National Science Foundation. NSF grants allow researchers to pursue their own best ideas across all fields of science and engineering, without regard to anyone else's short-term practical goals. Such fundamental research continues to be the foundation of our entire innovation enterprise.

At the same time, I recognize that such research is not sufficient to achieve NSF's broader mission to advance science toward solutions to our nation's challenges. That long standing broader mission for NSF was written into its 1950 founding document by this very Committee. Indeed, NSF has long supported both use-inspired research and efforts to translate the research into practice. NSF pioneered the Small Business Innovation Research – or SBIR – program in the 1970s. Nearly 10 years ago, NSF launched the Innovation Corps program to educate a new generation of scientist-entrepreneurs. But those efforts have largely been around the edges, and not on a large scale.

We are at an inflection point in U.S. research and innovation leadership. The international leadership that we long took for granted is rapidly slipping through our fingers. In this new global context, the Science, Space, and Technology committee is looking to reauthorize the National Science Foundation for the future, not just relying on what we've done in the past.

There is much to discuss in the *NSF for the Future Act*, from the creation of a new directorate, to STEM education and broadening participation at all levels, to increased accountability and security in our research enterprise.

One particular aspect of our legislation that I want to highlight is public engagement in research. The stakes are high for many areas of science and technology- not just in terms of our economic competitiveness and national security - but in terms of the benefits and risks to individuals, to communities, and to workers. To maximize the benefits and minimize the potential harm of technologies such as artificial intelligence and synthetic biology, we must engage nontraditional stakeholders and diverse voices in NSF research, including civic organizations, labor, local and tribal governments, farmers, and even the public at large. And public engagement should not just be for technology. It matters for climate change, water quality, social inequity, and other challenges for which technology is only part of the solution. As we identify the types of problems we are trying to solve, as we scope our research agendas, and as we pull together research partnerships, we must think more broadly about who needs to have a seat at the table. Engagement beyond the usual suspects will also spark new lines of inquiry and attract a more diverse group of researchers themselves. These are central goals of the *NSF for the Future Act*.

I again want to thank the expert witnesses for taking the time to appear before the committee this morning and share your insights and recommendations. I look forward to the discussion. I yield back.