

Thank you, Chairman Paul, for holding this hearing on such an important topic, and thank you to our witnesses for taking the time to be here today. I look forward to hearing your testimony.

One of the essential tasks of this subcommittee is to engage in honest evaluations of the public investments we make as a nation and whether these investments are indeed worthwhile. This is a responsibility to the taxpayer I personally take very seriously, and I'm grateful for the opportunity to do so in a collaborative, bipartisan way.

We are here today to discuss federal funding for scientific research, which I believe remains a necessary investment in our collective future. Scientific research is the seed corn of innovation and new discoveries, and federal investments in research and development have led to discoveries that have had profound impacts on public health, safety, and our quality of life.

Federally-funded research has resulted in widespread adoption of technologies as revolutionary as the Internet, GPS satellites, MRI imaging, and the Human Genome Project. This research results in economic growth in every state and leads to the creation of tens of thousands of jobs in entirely new sectors of the economy. It inspires the next generation of Americans to believe that the sky is the limit and that no challenge is impossible.

Even as the share of federal investment remains at a historic low as a percentage of overall gross domestic product, supporting federally-funded research remains as important as ever to maintain America's competitive edge in an increasingly competitive global economy. Targeted federal investments in research can accelerate, catalyze, or encourage private-sector innovation that may not have otherwise occurred.

We should recognize that the federal and private contributions to the research and development enterprise are not perfect substitutes for one another, but instead work in tandem with each other focusing on different stages in the R&D cycle.

Last year, I was proud to introduce bipartisan legislation with Senators Gardner, Thune, and Nelson known as the American Innovation and Competitiveness Act, which was signed into law in January of this year.

The bill was the product of a year-long effort that began with a series of roundtable discussions with representatives from science, from education, business, and economic development communities on how to improve the American research and innovation ecosystem.

Our legislation reauthorized a number of important programs that promote research and scientific inquiry, strengthen innovation and advanced manufacturing, grow our skilled workforce, and enhance American competitiveness around the world.

The bill included a number of provisions that aim to reduce regulatory and administrative burdens on academic researchers so they can spend more of their time on their research and less on paperwork. Our bill also reaffirmed the independent merit review process that guides NSF funding decisions and ensures that research proposals are judged independently on the merits, by peers in scientific community, and without bias.

While certain basic research projects that receive federal funding certainly have silly-sounding titles, further examination may reveal the true scientific merit and potential broader impacts of the work.

Before a proposal gets one penny of funding, reviewers have to consider it based on criteria that include whether the proposal increases economic competitiveness, advances public health and welfare, or supports the national defense. It's worth noting that only 1 in 5 proposals receive NSF funding at all, and that NSF is required to justify to the public why these proposals were lucky enough to receive funding.

Even as research begins with a clear question in mind, it can be hard to quantify or predict exactly where the science will lead. Rather than inject politics into this process, our discussion today should instead concentrate on how to safeguard the often unexpected process of discovery inherent in scientific inquiry, while ensuring that federal dollars spent on research remains completely and fully accountable taxpayers.

Part of this solution may lie in breaking down barriers. Rather than remain ensconced in the ivory tower of academia, scientists should prepare to engage in a robust exchange of information with the general public about the goals and benefits of their research.

The discussion we are having today is an important one. Our country faces critical environmental, public health, and economic challenges in the years ahead, but we must not shy away from facing them head-on and leveraging the power of our research enterprise to create a better tomorrow for everyone.

Thank you again to all the witnesses for your time today, and I look forward to our discussion.