



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

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Statement of Chairman Lamar Smith (R-Texas)

STEM and Computer Science Education: Preparing the 21st Century Workforce

Chairman Smith: Since our founding, American innovators have played an important role in our nation's growth and prosperity. With the rise in competition from abroad, however, we must ensure that America stays a world leader in innovation. We can do this in part by better educating American students in STEM subjects.

Unfortunately, America lags behind many other nations when it comes to science, technology, engineering and mathematics (STEM) education. American students ranked 19th in science and 31st in mathematics out of 35 countries. We can and must do better to keep America great.

We have to capture and hold the desire of our nation's youth to study science and engineering so they will want to pursue these careers.

More graduates with STEM degrees means more advanced technologies and a more robust economy. A well-educated and trained STEM workforce promotes our future economic prosperity.

But it is not just about the economy. These graduates have the potential to develop technologies that could save thousands of lives, jump-start a new industry, or even discover new worlds.

We can work together to ensure that students continue to go into these fields so that their ideas can lead to a more innovative and prosperous America.

You may be surprised to find out that STEM originally did not include computer science in its definition.

Last Congress, I introduced the STEM Education Act of 2015, which was signed into law. This bipartisan bill expands the definition of STEM to include computer science. The bill also helps encourage students to enter STEM fields.

This measure directs the National Science Foundation (NSF) to continue to award competitive merit-reviewed grants to support informal STEM education programs such as afterschool science programs and in ways that formal classroom training often does not.

The bill also amends the NSF Noyce Master Teaching Fellowship program to allow teachers in pursuit of Master's degrees to participate in the program. This enables more teachers to have the opportunity to compete for the grants.

Another challenge is that despite representing nearly half of the college-educated and total U.S. workforce, women account for less than 25 percent of America's STEM workforce.

To address this disparity, the first two Science Committee bills signed into law by President Trump helped support women's involvement in STEM fields.

The INSPIRE Women Act was led by Research and Technology Chairwoman Comstock, and the Promoting Women in Entrepreneurship Act was led by another Science Committee Member, Rep. Esty. I thank them both for their efforts to help inspire women to work in STEM-related fields.

Today we will hear from leaders and experts who focus on engaging students in STEM and computer science education.

We need to learn what is taking place outside of the federal government so we can be sure we are not spending taxpayer dollars on duplicative programs.

And we need to more effectively use taxpayers' dollars to achieve the most benefit for our students and our country.

It is critical to understand what is working and how we can build on that success. A well-educated and trained STEM workforce will promote our future economic prosperity. But we must encourage our nation's youth to study science and engineering so they will want to pursue these careers.

We need to ensure that young adults have the science and math skills to strive and thrive in a technology-based economy.

You can't have innovation without advances in technology. And the STEM students of today will lead us to the cutting-edge technologies of tomorrow.

I look forward to hearing the ideas of our witnesses.

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