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

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Statement of Chairwoman Barbara Comstock (R-Va.)
STEM and Computer Science Education: Preparing the 21st Century Workforce

Chairwoman Comstock: Today we will discuss several initiatives in science, technology, engineering, and mathematics, or STEM, and computer science education, and how a variety of organizations engage students in these important fields.

A STEM educated workforce is necessary for innovation and for ensuring U.S. economic strength, competitiveness, and national security.

As demand for skilled STEM workers continues to grow, the U.S. must work to fill those employment needs, especially with the looming retirements of the baby-boomer generation.

In addition, there remains a critical cybersecurity workforce shortage as cyber-attacks are increasing in both quantity and complexity. The results from a 2017 Global Information Security Workforce Study predicts a worldwide shortage of 1.8 million cybersecurity professionals by 2022. Also, according to CyberSeek, 40,000 jobs for information security analysts go unfilled every year in the U.S., and employers are struggling to fill 200,000 other cyber related jobs.

It is a privilege to serve an area of Virginia in which so many of my constituents are talented people who work on cyber issues at well-established companies such as Northrop Grumman or start-ups like PhishMe that are rapidly expanding due to the cyber threat.

However, when I visit with these companies and other constituents who work in the technology sector, a repeated concern expressed to me is the increasing need for individuals with appropriate education, training, and knowledge of cybersecurity matters.

There are some great examples of local companies working to fill these workforce gaps, like Ashburn, Virginia-based cybersecurity company Telos, which is working with a local high school, C. S. Monroe Technology Center, and George Washington University's Science and Technology campus in Loudoun County.

Yesterday, I attended an event where I was able to learn about the Girls Who Code program which provides young women experience in computer related fields and sets them on a path toward acquiring the skills necessary to compete for these well-paying 21st century jobs.

Capital One, headquartered in McLean, Virginia, exposes middle school students to technology by partnering with schools and community leaders to inspire the students to focus on software engineering. Since it was launched, the program has had over 2,500 participants who have created over 500 different mobile apps.

Additionally, Micron, who has a sizable facility in Manassas, commits STEM-focused grants and partners with Virginia universities to help inspire students. They also partnered with Discover Technology to create their new STEM Mobile Discovery Lab – a bus specially designed with interactive science exhibits where students are able to work with robotics and explore 3D printing. I am looking forward to hearing more about the work that they do during this hearing.

While these examples are encouraging, we must do more to educate and train our current and future workforce.

The workforce gap is especially concerning when considering the many hearings we have held in this Committee on federal cybersecurity issues.

These hearings focused on cybersecurity incidents, as well as emerging risks which threaten federal agencies' computer networks and hundreds of millions of Americans who entrust their confidential personal data to the agencies.

In order to fill these jobs, we must be able to harness the talent of our nation's young men and women. It is estimated that only 3% of these jobs will be filled by a woman. That is why I introduced the INSPIRE Women Act, which was signed into law earlier this year.

This bill leverages NASA's talent pool of current and retired astronauts, and early career female scientists, engineers, and innovators to inform and inspire young women to pursue their dreams in STEM subjects.

Through the combination of public and private sector investments, we can help inspire students to study these subject areas and pursue careers that will help unleash technological innovation, grow our economy, increase our competitiveness, and improve our national security.

And with that, I look forward to hearing the testimonies of our witnesses.

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