U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Opening Statement

Chairwoman Haley Stevens (D-MI)
of the Subcommittee on Research and Technology

Research and Technology Subcommittee Hearing:
More Hires, Fewer Hacks: Developing the U.S. Cybersecurity Workforce

Tuesday, February 11, 2020

Good morning and welcome to this hearing of the Subcommittee on Research and Technology to explore the major challenges that have led to our national cybersecurity workforce shortage and the programs underway to address that shortage. A special welcome to our distinguished panel of witnesses for joining us here today. I'm looking forward to hearing your testimony. Almost every day we hear news about security breaches, poor system design, and vulnerabilities disrupting businesses and individuals' lives. Part of the reason cybersecurity issues are so prevalent is that the demand for skilled cybersecurity professionals far exceeds the supply of those individuals.

According to CyberSeek, a tool funded by the National Initiative for Cybersecurity Education (NICE), as of last month there are over a half a million job openings related to cybersecurity in the United States. That means nearly one in three cybersecurity jobs go unfilled.

There are many reasons for this workforce shortfall. Relatively few high school students have any exposure to computer science in the classroom, let alone cybersecurity. Even when students graduate from college with a degree in computer science, they often lack the cybersecurity skills and hands-on experience to fill job openings.

We must also recognize and encourage the multiple pathways to careers in cybersecurity, including certification programs and apprenticeships. On Saturday, I held a town hall on special education in my district. One of the excellent resources we highlighted is the Living & Learning Enrichment Center, a center for adults with disabilities that has just partnered with Cisco and the Michigan Career & Technical Institute to start a cybersecurity certification to train adults with disabilities that traditionally present barriers to employment.

In addition, the cybersecurity field as a whole lacks diversity, even more so than many other STEM fields. The math is simple: Last year, women accounted for only 20 percent of the global cybersecurity workforce. Women of color in cybersecurity jobs make on average $10,000 less than their male counterparts. We cannot address our current and future cybersecurity workforce needs without recruiting and retaining more women and minorities into the field. All of our

panelists have been leaders in addressing the diversity challenge, and I look forward to hearing about your efforts on that front.

It should not be a surprise that I am excited to have NIST represented on this panel to talk about their leadership in building the government's and the nation's cybersecurity workforce. The National Institute of Standards and Technology is playing a critical role in cybersecurity workforce development across the country through the National Initiative for Cybersecurity Education. We will also discuss many of the important federal programs at the National Science Foundation, the Department of Homeland Security, and other agencies designed to educate and train the next generation of cybersecurity professionals.

Finally, we will explore how partnerships between academia, industry, and Federal and state governments are working to improve our cybersecurity workforce.

I am proud to say that my home state of Michigan has led the way in developing education and training programs to equip Michiganders with the skills they need to pursue a career in cybersecurity. Governor Gretchen Whitmer, and her predecessor Governor Snyder, have implemented programs like the Governor's High School Cyber Challenge and Girls Go Cyber to give Michigan high schoolers experiences in cybersecurity. We will hear about some of those efforts today.

I want to again thank the witnesses for being here today to help us understand the challenges that organizations face to recruit a skilled cybersecurity workforce, effective education and workforce programs designed to help organizations meet cybersecurity workforce needs, and how Federal agencies, such as NIST, are partnering with industry, universities, and states to lead the way.