



COMMITTEE ON
SCIENCE, SPACE, AND TECHNOLOGY
REPUBLICANS Frank Lucas, Ranking Member

Opening Statement of Research & Technology Subcommittee Ranking Member Jim Baird, PhD

Research & Technology Subcommittee Hearing

More Hires, Fewer Hacks: Developing the U.S. Cybersecurity Workforce

February 11, 2020

Good morning Chairwoman Stevens and thank you for holding today's hearing to examine the challenges both the public and private sectors are facing in recruiting and training cybersecurity professionals.

With advances in technology and the growth of the "internet of things" come new methods that foreign countries and cybercriminals can use to attack and access our networks.

Americans' information is vulnerable and, as we will hear today, there is a demand for trained cybersecurity experts to identify and defend against cyber-attacks.

According to data derived from job postings, the number of unfilled cybersecurity jobs has grown by more than 50 percent since 2015. By 2022, the global cybersecurity workforce shortage is projected to reach upwards of 1.8 million unfilled positions.

Well-trained professionals are essential to our ability to implement proven security techniques. Institutions of higher education are working to create and improve cyber education and training programs focused on ensuring there are enough professionals to meet our needs.

I am very proud to say that Indiana has several universities that are leading the way in cyber education and training. Purdue University, which is home to the nation's first computer science department, hosts the Center for Education and Research in Information Assurance and Security (CERIAS).

CERIAS is one of the seven original programs designed as a National Center of Academic Excellence in Cyber Defense, sponsored by the Department of Homeland Security (DHS) and The National Security Agency (NSA).

The Purdue program has produced 215 graduates with doctoral degrees in Cybersecurity and

329 graduates with master's degrees in Cybersecurity. Purdue University Northwest is home to another Center of Academic Excellence for Information Assurance and Cyber Defense Education. As of this fall, Purdue Northwest has more than 200 students enrolled in its Cybersecurity major.

Indiana is also very lucky to have two Centers of Academic Excellence designated two-year institutions: Moraine Valley Community College and Ivy Tech Community College. These programs help us meet the growing demand nationwide for cybersecurity professionals at all skill levels.

The Science Committee has an important role in supporting programs that are providing the skills and expertise needed to defend and support our systems from cyberthreats.

I am an original co-sponsor of the Securing American Leadership in Science and Technology Act. This legislation takes important steps to improve America's cybersecurity capabilities. It makes strategic investments in cybersecurity research and development across federal science agencies. And it supports building up the NSF scholarship for service program, Cybercorps, to grow and improve the quality of America's cybersecurity workforce.

Protecting America's cyber-systems is critical to our economic and national security.

While these federal programs play an important role, industry has really stepped up and developed some innovative programs to address the cybersecurity skills gap we are currently facing, such as IBM's New Collar program.

I would like to thank each of our witnesses for taking the time to be here with us this morning. I look forward to hearing from you as you provide an overview of the state of the cybersecurity workforce and recommend how the federal government can best work with industry and academia to meet this challenge.

Thank you and I yield back the balance of my time.