

July 31, 2017

National Institute of Standards and Technology
U.S. Chamber of Commerce
100 Bureau Drive
Gaithersburg, MD 20899

Re: Docket Number 170627596-7596-01, Document Number 2017-14553

Dear National Institute of Standards and Technology representatives:

Thank you for the opportunity to respond to this Request for Information on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure: Workforce Development.

The Association for Career and Technical Education (ACTE) is the nation's largest not-for-profit association committed to the advancement of education that prepares youth and adults for successful careers. ACTE represents the community of CTE professionals, including educators, administrators, researchers, guidance counselors and others at all levels of education. ACTE is committed to excellence in providing advocacy, public awareness and access to resources, professional development and leadership opportunities. ACTE membership includes a Division dedicated to Engineering and Technology, and an IT section with nearly 2,000 CTE teachers.

In response to questions 5 and 8 of the RFI, ACTE encourages the National Institute of Standards and Technology to support investment in career and technical education (CTE) as the key to preparing our nation's cybersecurity workforce.

CTE programs in middle and high school and in postsecondary and adult education prepare individuals for further education and careers through industry-aligned technical training integrated with rigorous academics and employability skills. In addition to classroom- and lab-based activities, CTE programs offer work-based experiences like internships and apprenticeships, relevant industry certifications and opportunities for high school students to earn postsecondary credit.

There are a number of CTE programs to support cybersecurity needs. For instance, at the Cybersecurity Networking Academy at the Applications and Research Laboratory — Howard County, Maryland's area CTE center — students learn to analyze and mitigate cyber threats through National CyberWatch Center and Cisco-certified curriculum. The Academy is one of the first high school cybersecurity programs to have forged strong connections with a recognized postsecondary Center of Academic Excellence in cyber

fields, as designated by the National Security Agency (NSA) and Department of Homeland Security (DHS). The program also incorporates opportunities to participate in work-based learning and earn Cisco and CompTIA industry certifications. Academy students have excelled in the CyberPatriot National Youth Cyber Defense Competition.

On the postsecondary side, students in the Cyber Security and Information Assurance program at Indiana's Ivy Tech Community College develop hands-on skills with security infrastructures and devices through school-based learning and internship opportunities, leading to several certificate and associate degree options. Transfer pathways are available to Indiana University Purdue University Indianapolis (IUPUI) and Saint Francis University. In 2013, NSA and DHS designated Ivy Tech a Center of Academic Excellence in Cyber Defense for two-year institutions (CAE-2Y). Ivy Tech also partners with the National Science Foundation, CompTIA, VMware and Cisco.

The best way to support these and other programs that develop our nation's cybersecurity workforce is to invest in CTE through the Carl D. Perkins Career and Technical Education Act (Perkins), the principal source of dedicated federal funding for CTE. Perkins helps to build the capacity of secondary and postsecondary institutions to serve millions of students nationwide through CTE programs that are academically rigorous and aligned to the needs of business and industry. For instance, Perkins funding can be used for professional development of IT teachers, to ensure that they stay up-to-date on the latest technology and innovations in cybersecurity.

Despite the importance of Perkins funding in advancing high-quality CTE programs, congressional appropriations have not kept pace with the growing need. Funding for the Perkins Basic State Grant program is still \$5.4 million below its pre-sequestration level. From FY 2007, which followed the last reauthorization of Perkins, through FY 2016, total Perkins grant funding to states declined by 13 percent, nearly \$170 million less in funding to support CTE. Reversing this trend by increasing Perkins investment will support programs that are preparing the qualified cybersecurity workforce.

Thank you for the opportunity to respond to this RFI. If you have any questions or need additional information, please contact Catherine Imperatore, ACTE's research manager, at cimperatore@acteonline.org.

Sincerely,



LeAnn Wilson
Executive Director
ACTE