

Congress of the United States
Committee on Education and the Workforce
Hearing on: Innovation in K–12 Career and Technical Education (CTE)

Statement for the Record

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Introduction

Good morning, Chairman Kiley, Ranking Member Bonamici, and members of the committee.

My name is Kristi Rice, and I teach Cybersecurity at Spotsylvania High School in Virginia, where I lead a three-level cybersecurity pathway and coach the award-winning Cyber Knights competition team. I am also honored to be the recipient of the 2021 Presidential Cybersecurity Educator Award, which recognizes educators nationwide for excellence in preparing students to become the next generation of cybersecurity professionals.

Spotsylvania High School is a rural high school located in Spotsylvania County, Virginia, where our attendance zone covers nearly 75% of the county, while the remaining four high schools share the other 25%. Despite our rural setting, we have built one of the most dynamic and successful cybersecurity programs in the Commonwealth. This success demonstrates that innovation, when paired with equitable access, can thrive anywhere—rural or urban—and that students everywhere deserve the chance to discover their potential in cybersecurity.

In addition to my classroom work, I serve as Chair of the Virginia Cyber Range K–12 Advisory Committee and as a Course Content Lead for Spotsylvania County Public Schools, helping align cybersecurity curriculum, resources, and educator support across the Commonwealth.

Thinking Outside the Box: Innovative Approaches to Teaching Cybersecurity

When I teach, I like to think outside the box—designing immersive, hands-on experiences that make complex cybersecurity concepts accessible and engaging.

My students learn through gamified learning environments like Capture the Flag (CTF) competitions, where they solve real-world challenges in cryptography, forensics, and network defense. These challenges turn learning into an active, problem-solving adventure that builds critical thinking, teamwork, and creativity.

Beyond the classroom, I serve as a coach for the U.S. Cyber Team, mentoring the nation's top young cyber athletes as they represent the United States in international competitions. Coaching at this level allows me to bring elite-level strategies and insights directly back to my classroom—helping my students understand that cybersecurity isn't just a subject, it's a pathway to national service, global competition, and career opportunity.

Getting Outside the Box: Bringing Industry to Students

Innovation also means getting outside the box—literally. My students don't just study cybersecurity; they experience it firsthand.

They've toured the Pentagon, visited FBI Headquarters, presented on panels at the White House Quad Cyber Challenge, and attended cybersecurity conferences and networking events where they meet professionals from government and industry.

For many of my students—coming from a rural school district—these experiences are their first exposure to such environments. To stand in the Pentagon, to ask questions at FBI Headquarters, or to present at the White House is transformative. It helps them see themselves not just as students, but as future cybersecurity professionals contributing to the nation's security.

For rural schools like ours, cybersecurity education is transformative—it opens doors to high-demand, high-paying careers that students can pursue without leaving their community, connecting rural America to the global digital economy.

Expanding Access and Inclusion: Competitions and Clubs

I founded the Virginia High School Cyber Cup, a statewide hands-on cybersecurity competition that gives all students the chance to participate, regardless of prior experience. The event includes three divisions—Advanced, Beginner, and Private/Home-School—to ensure equitable access for all.

The Virginia High School Cyber Cup grew out of the larger Commonwealth Cyber Cup initiative, which I founded to bring together high school teams from across Virginia for hands-on, real-world cybersecurity competition hosted through the Virginia Cyber Range.

The competition platform is hosted on the Virginia Cyber Range, a statewide resource providing secure infrastructure, courseware, and outreach for cybersecurity educators and students across Virginia's public high schools and colleges. This partnership allows schools—large or small, rural or urban—to participate on a level playing field.

To reach even more students, I co-founded The Cyber Circuit, a virtual cybersecurity club that connects high school students across Virginia, especially those without a cybersecurity class or who are homeschooled. It's about inclusion, opportunity, and ensuring every student has a pathway into cybersecurity.

My students also give back through leadership programs like Spotsy Hacks, a free middle school cybersecurity camp, and the Girls Go Cyber Club, which empowers young women to explore cybersecurity careers and build confidence as future leaders in technology.

Supporting Educators Across Virginia and Beyond

Innovation in CTE doesn't stop with students—it extends to educators. One of my greatest passions is mentoring and supporting new cybersecurity teachers.

Through the GenCyber Teacher Program with Virginia Tech and the University of North Georgia, I help prepare new educators to teach cybersecurity with confidence, even if they're new to the subject. I guide them through best practices, classroom strategies, and hands-on activities that make complex topics engaging and approachable.

I also serve as a Career Kickstart Facilitator for the College Board's new AP Cybersecurity course, which is creating a consistent national framework for cybersecurity education. This

course is helping states that lack formal cybersecurity pathways establish high-quality programs that align with industry and academic standards.

Through these efforts, I've been privileged to help build a network of dedicated educators across Virginia and beyond who are reshaping classrooms into vibrant cybersecurity learning environments.

Student Outcomes and Impact

The results of these efforts are reflected in the outstanding achievements of my students:

- Six of my former students have been awarded the Department of Defense SMART Scholarship, one of the nation's most prestigious cybersecurity scholarships.
- I've seen a significant increase in female participation in my program, helping to diversify the cybersecurity talent pipeline.
- Many of my former students are now employed in the federal government and private industry, working in cyber defense, risk analysis, and intelligence roles.
- A high percentage of my graduates earn industry-recognized credentials, such as CompTIA Security+, before graduation—giving them a powerful advantage as they enter college or the workforce.

These outcomes prove that even in a rural setting, students can achieve extraordinary results when provided with the right tools, mentorship, and opportunities.

Challenges in the Field

Despite the success, there are real challenges in sustaining cybersecurity education.

Cybersecurity teachers must continually upskill and reskill to keep pace with emerging technologies and threats. Each year brings new frameworks, tools, and methodologies that require technical adaptation. Yet, cybersecurity educators receive the same pay as those in static content areas that do not require such ongoing professional development.

Without proper investment in professional growth, resources, and compensation, we risk losing educators who are vital to maintaining and expanding this national workforce pipeline.

What's at Stake

The stakes could not be higher. The digital world is evolving faster than ever, and the threats our students will one day defend against are becoming more complex and consequential.

If we fail to innovate and provide meaningful learning experiences, we risk falling behind in developing the skilled cybersecurity workforce our nation needs to protect critical infrastructure and maintain global competitiveness.

Cybersecurity education is not just career training—it is a matter of national security. Programs like ours are building defenders, innovators, and problem-solvers who will safeguard America's future.

Conclusion

From a rural high school in Spotsylvania County to the Pentagon, from the Virginia Cyber Range to international competition stages, I've seen how transformative cybersecurity education can be.

When we invest in educators, empower students, and create pathways that connect classrooms to real-world challenges, we don't just prepare students for jobs—we prepare them to protect and lead in the digital frontier.

As the 2021 Presidential Cybersecurity Educator Award recipient, I am deeply committed to continuing this work—helping both students and teachers across the nation discover their potential, innovate boldly, and defend fearlessly.

Thank you for your time and your dedication to advancing innovation in Career and Technical Education.

Mrs. Kristi Rice, Statement for the Record Before the U.S. House Committee on Education and the Workforce, Hearing on "From Classroom to Career: Strengthening Skills Pathways Through CTE." Washington, D.C., November 19, 2025