Funded Projects

The following are a few key projects funded by the federal government.

The **NICE Challenge Project**, led by California State University, San Bernardino, aims to provide workforce experiences to students and educators. It provides task sized challenges, steeped in real word context and within full scale business networks. These challenges are inspired by the NICE Cybersecurity Workforce Framework and are mapped directly to the Work Roles, Tasks, and KSA. To enable the availability of the challenges and draw out powerful analytics from them, the project developed a web platform built atop its own virtualized infrastructure. This allows the challenges to have a low technical barrier of entry and at no cost. Learn more at *nice-challenge.com.*

CyberSeek, developed by CompTIA in partnership with Burning Glass Technologies, provides a data visualization of the need for and supply of cybersecurity workers to guide employers, job seekers, policy makers, education and training providers, and guidance counselors. CyberSeek's jobs heat map is aligned with the NICE cybersecurity workforce framework, providing deep insight into the skills, knowledge domains, and credentials needed in the market. This project also shows career pathways in cybersecurity that map opportunities for advancement in the field. Learn more at *cyberseek.org.*

The **National Integrated Cyber Education Research Center** (NICERC),an academic division of the Cyber Innovation Center, specializes in STEM, Cybersecurity, and Computer Science curriculum, and professional development in order to meet the growing national demand for cybersecurity and STEM professionals. NICERC empowers K-12 teachers to motivate creativity and innovation among students through problem-solving, critical thinking, and communication. NICERC, funded by the Department of Homeland Security, develops and offers these resources to K-12 educators at no cost. Learn more at *nicerc.org*.

Regional Alliances and Multistakeholder Partnerships to Stimulate (RAMPS) cybersecurity educawtion and workforce development is a program that provides funding opportunities to build multistakeholder workforce partnerships of employers, schools and institutions of higher education, and other community organizations. Learn more at *nist.gov/nice/ffo.*

Connect with NICE

Join the NICE Working Group

The NICE Working Group provides a mechanism for public and private sector participants to develop concepts, design strategies, and pursue actions that advance cybersecurity education, training, and workforce development. Subgroup focus areas include:

- K-12
- Collegiate
- Competitions
- Training and Certifications
- Workforce Management
- Apprenticeships

Learn more at *nist.gov/nice/nicewg*

Participate in the NICE Conference and Expo

The NICE Conference and Expo features thought leaders from education, government, industry, and non-profits and includes face-to-face convening of public-private partners, an opportunity to signal NICE strategic directions and priorities, and a forum to showcase best practices. Learn more at *nist.gov/nice/conference.*

Participate in the NICE K12 Cybersecurity Education Conference

The NICE K12 Cybersecurity Education Conference brings together educators, curriculum specialists, professionals, researchers, students, non-profit organizations, foundations, government, industry and more to address the challenges and opportunities of cybersecurity education in elementary and secondary schools. Learn more at *nist.gov/nice/k-12conference.*

Participate in National Cybersecurity Career Awareness Week

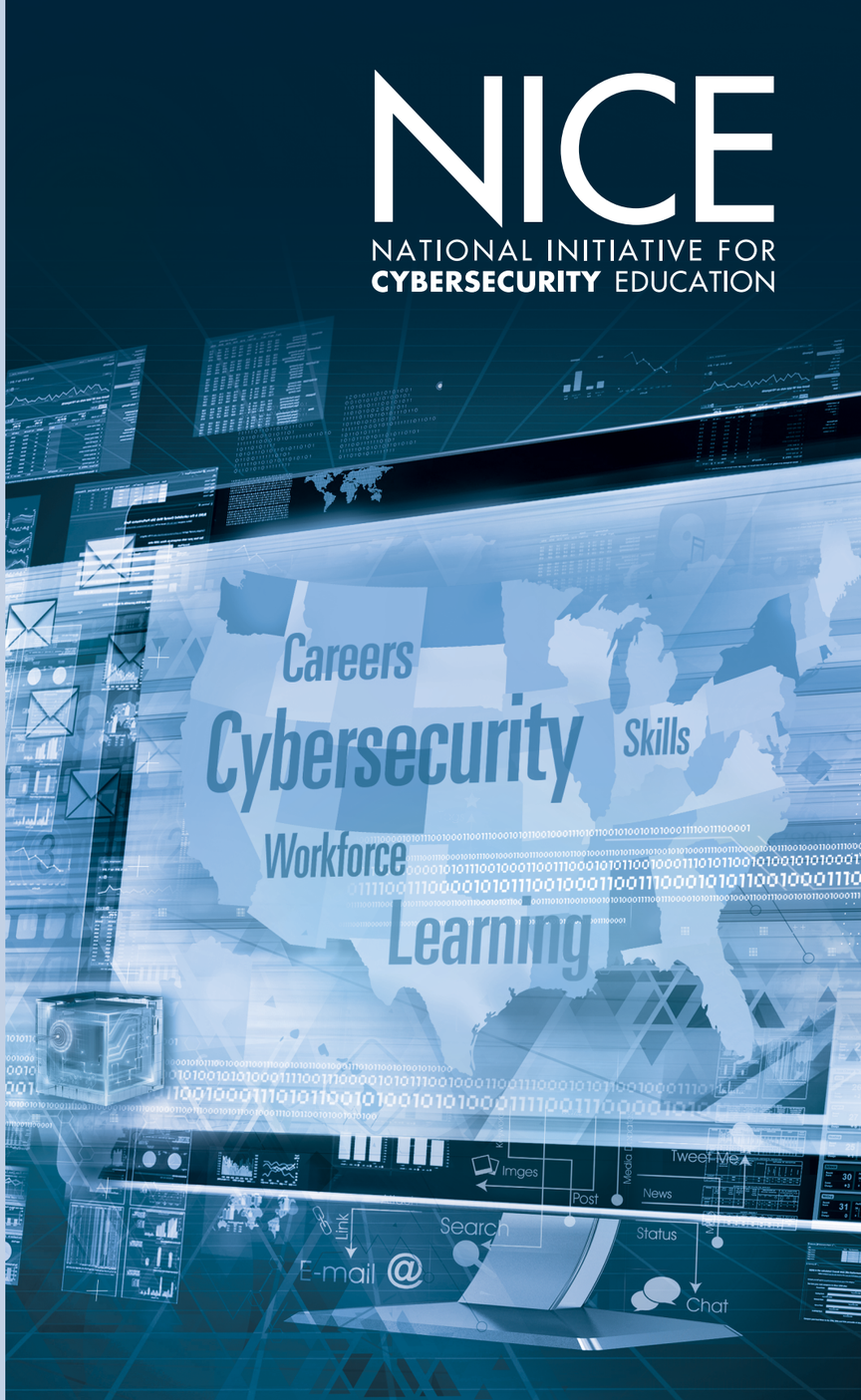
The National Cybersecurity Career Awareness Week is a celebration to focus local, regional, and national interest to inspire, educate, and engage children through adults to pursue careers in cybersecurity. Learn more at *nist.gov/nice/nccaw.*

Visit us Online

Learn more at *nist.gov/nice* and sign up for email updates from the NICE Program Office.

or

Send us a message at *nice.nist@nist.gov*



About NICE

The National Initiative for Cybersecurity Education (NICE), led by the National Institute of Standards and Technology (NIST) in the U.S. Department of Commerce, is a partnership between government, academia, and the private sector that seeks to energize and promote a robust network and an ecosystem of cybersecurity education, training, and workforce development. NICE fulfills this mission by coordinating with public and private sector partners to build on existing successful programs, facilitate change and innovation, and bring leadership and vision to increase the number of skilled cybersecurity professionals helping to keep our Nation secure.

NICE Goals

ACCELERATE LEARNING AND SKILLS DEVELOPMENT

Inspire a sense of urgency in both the public and private sectors to address the shortage of skilled cybersecurity workers

NURTURE A DIVERSE LEARNING COMMUNITY

Strengthen education and training across the ecosystem to emphasize learning, measure outcomes, and diversify the cybersecurity workforce

GUIDE CAREER DEVELOPMENT AND WORKFORCE PLANNING

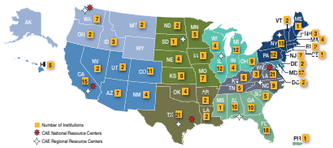
Support employers to address market demands and enhance recruitment, hiring, development, and retention of cybersecurity talent

Affiliated Programs

The Department of Homeland Security's **Cybersecurity Education and Awareness website**, the National Initiative for Cybersecurity Careers and Studies (NICCS), promotes cybersecurity education, training, and workforce development tools and resources. Employers, educators, professionals, and students can use the website to access the national cybersecurity training catalog, workforce development toolkit, the interactive NICE Cybersecurity Workforce Framework and more. Learn more at *niccs.us-cert.gov.*

The **NICE Cybersecurity Workforce Framework** (NIST Special Publication 800-181) serves as a fundamental reference resource to support a workforce capable of meeting an organization's cybersecurity needs. It provides organizations with a common, consistent lexicon that categorizes and describes cybersecurity work. Using the NICE Framework as a reference resource will improve the communication needed to identify, recruit, and develop cybersecurity talent. Learn more at *nist.gov/nice/framework.*

The National Science Foundation's **Advanced Technological Education** (ATE) program supports the education of technicians for the high-tech fields—including information technology and cybersecurity—that drive the U.S. economy. ATE accomplishes this by providing grants to develop and evaluate innovative activities that improve technician education, particularly in community colleges and secondary schools. Learn more at *atecenters.org/st/* and *nsf.gov/ate*.



The National Security Agency's **National Centers of Academic Excellence in Cybersecurity** (CAE) programs aim to promote higher education and research and produce a growing pipeline of professionals with cybersecurity expertise. The goal of the CAEs in Cyber Defense (CAE-CD), a program co-sponsored by the Department of Homeland Security, is to reduce vulnerability in our national infrastructure by promoting higher education and research in cyber defense. The National CAEs in Cyber Operations (CAE-CO) complements the CAE-CD program, providing an emphasis and specialization in cyber operations Learn more at *nsa.gov/resources/students-educators/centers-academic-excellence.*

The National Science Foundation's **CyberCorps®: Scholarship for Service** (SFS) program, co-sponsored by the Department of Homeland Security and the Office of Personnel Management, is a program that provides scholarships to students for cybersecurity-related degree programs at select two- and four-year colleges and universities, including tuition, stipends, and related fees. In return, students receiving SFS awards agree to serve in Federal, State, local, tribal or territorial governments upon graduation for a period equivalent to the length of their scholarship. Learn more at *sfs.opm.gov.*

The National Security Agency's **GenCyber** program, co-sponsored by the National Science Foundation, provides summer cybersecurity camp experiences for students and teachers at the K-12 level. Goals of the program include increasing interest in cybersecurity careers, increasing diversity in the cybersecurity workforce of the nation, and improving teaching methods for delivering cybersecurity content in K-12 curricula. Learn more at *gen-cyber.com*.

The Office of Management and Budget and Office of Personnel Management have published a **Federal Cybersecurity Workforce Strategy** that addresses Recruitment and Hiring, Learning and Talent Development, and Retention for the Federal cybersecurity workforce. OMB and OPM are working with their NICE interagency partners to implement over 20 activities that make up the Strategy. Learn more *www.chcoc.gov/content/federal-cybersecurity-workforce-strategy.*