



NATIONAL CYBER WORKFORCE AND EDUCATION STRATEGY

CYBER PATHWAYS FOR EMPLOYERS

One breach of sensitive data can have significant costs for a company. Ensuring systems are securely designed and operated requires a workforce with the right cyber skills. Developing the cyber workforce requires partnerships across the private sector, Federal, state and local governments, non-profits, and academia. The National Cyber Workforce and Education Strategy (NCWES) calls for employers to collaborate in ecosystems to help align the jobs of tomorrow to approaches to equipping every American with the foundational cyber skills needed to fully access the resources in our interconnected society. The actions below are for employers to consider, and are intended to spark ideas as a starting point for realizing the transformations outlined in the Strategy.

EXPAND SKILLS-BASED APPROACHES

Focus on the skills needed rather than relying solely on college degrees or years of experience as indicators of qualification when developing position descriptions and hiring strategies. Host a planning session with recruitment staff to develop skills-based recruitment and talent development processes. Search online for “optimize tech job postings” to help compose skills-based job postings. Assist small enterprises with developing their own skills-based programs. Learn more about the [NICE Framework](#) to equip hiring managers and recruitment professionals with the terminology and understanding of the roles and responsibilities in cyber positions.

INCREASE ON-RAMPS THROUGH WORK-BASED LEARNING OPPORTUNITIES

Host an open house for educators from local high schools, community and technical colleges, and universities to improve their understanding of the cyber skills and talent needs in your organization. Ask educators about work-based learning programs that could augment your cyber talent mix and cultivate your current and future workforce. Partner with organizations serving underrepresented and underserved populations to expand and diversify your cyber talent pipeline. Identify and establish more entry-level positions and opportunities that provide career pathways for growth and advancement. Explore investing in apprenticeship, internship, and other work-based learning programs to bring skilled learners to your workforce.

While the Strategy contains lines of effort for all stakeholders, some of the key lines of effort for employers include:

- 2.1.2 Increase engagement in cyber education ecosystems.
- 3.2.2 Build and enhance industry partnerships in cyber education and workforce development ecosystems to enhance diversity and improve programs.
- 3.2.4 Expand the use of skills-based workforce development practices.
- 3.2.5 Increase on-ramps to cyber careers through work-based learning opportunities.



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SUPPORT YOUR LOCAL ECOSYSTEM

Expand your cyber talent pipeline by hosting or joining a reception to connect with K-12 and postsecondary institutions, community and faith-based organizations, and government programs. Discover workforce development resources in your local area, and convey your skill needs. Contribute your expertise to the development of cyber content to education systems and institutions, especially on specialized platforms and products. Create a mentorship program that enables employees to help provide cyber education and training in formal and informal learning environments.

FEDERAL CYBER RESOURCES FOR EMPLOYERS

The Federal government offers a variety of programs to support public and private sector employers' efforts to recruit, develop, and retain cyber workers. Currently, there are over 500,000 open cyber jobs. In order to help employers, fill these vital positions, Federal government programs focused on matching cyber talent with employer needs include: job search tools, career fairs and expos, workforce readiness skills, and scholarship for service programs. These service programs encourage recipients to work in the Federal government or in state, local, tribal, and territorial (SLTT) governments for a period equal to the length of the scholarship, among many other programs.

HELPFUL LINKS

Education and Training

Department of Homeland Security – Cybersecurity and Infrastructure Security Agency

[Cyber Defense Education and Training \(CDET\)](#)

[Cybersecurity Apprenticeship Program for Veterans](#)

Department of Commerce – National Institute of Standards and Technology (NIST)

[Regional Alliances and Multistakeholder Partnerships to Stimulate \(RAMPS\) Cybersecurity Education and Workforce Development](#)

[Cyberseek.org*](#)

[National K12 Cybersecurity Education Conference*](#)

[NICE Conference and Expo*](#)

[National Cybersecurity Career Ambassadors Program](#)

[Cybersecurity Career Week](#)

[NICE Framework and Resource Center](#)

[US Cyber Games*](#)

[Free or Low Cost Cybersecurity Resources](#)

[Cybersecurity Apprenticeship Finder](#)



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Department of Commerce – Economic Development Administration
[Regional Technology and Innovation Hub Program](#)

Department of Defense

[CYBERPATRIOT*](#)

[AEOP – High School Apprenticeship Program \(HSAP\)*](#)

[AEOP – Research and Engineering Apprenticeship Program \(REAP\)*](#)

[DOD STEM Community College Consortium](#)

Department of Education

[Career and Technical Education \(CTE\)-Cyber Net](#)

[Small Business Innovation Research \(SBIR\) Program](#)

[Raise the Bar: Lead the World](#)

[Career Z Challenge: Expanding Work-Based Learning Opportunities for Gen Z](#)

[Native American Career and Technical Education Program](#)

[Native Hawaiian Career and Technical Education Program](#)

Department of Labor

[Cybersecurity Apprenticeships](#)

[Apprenticeship Sprint](#)

[Youth Apprenticeships](#)

[National Apprenticeship Week](#)

[Apprenticeship Standards Builder](#)

[Apprenticeships.Gov](#)

Department of Labor – Employment and Training Administration

[Cybersecurity Competency Model*](#)

National Security Agency

[NSA-funded CyberSkills2Work Program*](#)

[NSA Careers Portal](#)

U.S. Agency for International Development

[Innovative Workforce Activity Grant Program](#)

Veterans Affairs

[VA-Office of Information and Technology \(OIT\) Career Development Portal](#)

Public Service

Office of Personnel Management (OPM)

[Cybercareer.gov](#)



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**An asterisk indicates a government affiliated program that may receive funding from the federal government.*

For more information about these Federal Cyber Resources, please reach out to the Office of the National Cyber Director's Cyber Workforce Directorate at: workforce@ncd.eop.gov