



# Homeland Security

## NICE 2.0 - Achieving Cybersecurity Excellence Through Evolution of the Nation's Cyber Workforce

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# Cybersecurity Workforce Needs

*There is a growing need...*

- By 2015, an estimated 2.5 million\* new cybersecurity positions will exist, and America needs clear requirements for job candidates and the positions they fill.
- The cyber community must develop a sustainable pipeline of high-caliber candidates with standardized, requisite skills and training across government, industry, and academia.

## **Workforce Challenges**

- Lack of standardized language to describe and organize cybersecurity work.
- Colleges can't create programs that are clearly aligned to jobs.
- Employers often have to retrain new hires in the specific skills required.
- Students don't have clear job prospects and career opportunities.
- Policy makers can't set standards to promote workforce professionalization.

\*Source: FCW citation: <http://fcw.com/articles/2011/11/10/cybersecurity-workforce-plan.aspx>



# Cybersecurity Workforce Needs

*The National Initiative for Cybersecurity Education (NICE) was established to raise national cybersecurity awareness, broaden the pool of cyber workers through strong education programs, and build a globally competitive cybersecurity workforce.*



# The Workforce Framework

*The National Cybersecurity Workforce Framework (the Workforce Framework) is the foundation for increasing the size and capability of the US cybersecurity workforce.*

The Workforce Framework establishes:

- Organizes cybersecurity into 7 Categories and 32 Specialty Areas
- Establishes a baseline of knowledge, skills, and abilities (KSAs) and tasks

The Workforce Framework assists with strategic human capital efforts, including:

- Workforce Planning
- Recruitment and Selection
- Training and Development
- Succession Planning

## Categories



# The Workforce Framework

*When degrees, jobs, training and certifications are aligned to the Workforce Framework...*



**Colleges** can create programs that are aligned to jobs



**Students** will graduate with knowledge and skills that employers need



**Employers** can recruit from a larger pool of more qualified candidates



**Employees** will have a better defined career path and opportunities



**Policy makers** can set standards to promote workforce professionalization



# THE NATIONAL INITIATIVE FOR CYBERSECURITY CAREERS AND STUDIES (NICCS) PORTAL

*The nation's one-stop-shop for cybersecurity careers and studies.*

- Interactive Workforce Framework.
- Workforce Framework User Guides
- Searchable Training Catalog
- Stop-Think-Connect awareness materials
- Teaching and Workforce Development Tools
- News and Events

[www.niccs.us-cert.gov](http://www.niccs.us-cert.gov)

The screenshot shows the NICCS portal website. At the top, it says "official website of the department of homeland security" and "NICCS NATIONAL INITIATIVE FOR CYBERSECURITY CAREERS AND STUDIES". The navigation menu includes HOME, AWARENESS, EDUCATION, TRAINING, CAREERS, NEWS & EVENTS, COMMUNITY, and RESEARCH. The main banner features the text "NICCS—Helping You Enhance your Cybersecurity Knowledge" and "NICCS helps make cybersecurity materials more available." Below this is a "Learn More" button and a pagination control showing "1 2 3 4". To the right of the banner is a large image of stylized human figures with the text "NICCS NATIONAL INITIATIVE FOR CYBERSECURITY CAREERS AND STUDIES" and "NICCS is the One Stop Shop for Cybersecurity Information!". Below the banner are several sections: "Information for" with a list of user types (General Public, Students, Educators, Parents, etc.), "STAY SAFE ONLINE" with a "View our Cybersecurity How-To Guide" link, "EXPLORE SPECIALTIES" with a link to "Explore the 31 Cybersecurity Specialty Areas", "FIND COURSES" with a link to "Try a demonstration of our training catalog", "WORKFORCE PLANNING" with a link to "Learn about skill gap analysis", and "UPCOMING EVENTS" with a calendar of activities including "Training Courses: Digital Forensics and Ethical Hacking" (Feb 22), "RSA" (Feb 25 to Mar 1), "CyberPatriot V National Finals" (Mar 14 to Mar 15), "Federal Information Systems Security Educator's Association" (Mar 19 to Mar 21), and "The Colloquium for Information Systems Security Education (CISSSE)" (Jun 10 to Jun 13).



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# QUESTIONS



**For questions about NICE, the Workforce Framework, and other initiatives, please contact:**

National Initiative for Cybersecurity Careers and Studies (NICCS)  
Mailbox at [NICCS@hq.dhs.gov](mailto:NICCS@hq.dhs.gov)

## Links

**Workforce Framework:**

[www.niccs.us-cert.gov/training/tc/framework](http://www.niccs.us-cert.gov/training/tc/framework)

**NICCS:**

[www.niccs.us-cert.gov](http://www.niccs.us-cert.gov)

