Homeland Security

Cyber Workforce Development Best Practices

Benjamin Scribner
Department of Homeland Security (DHS)
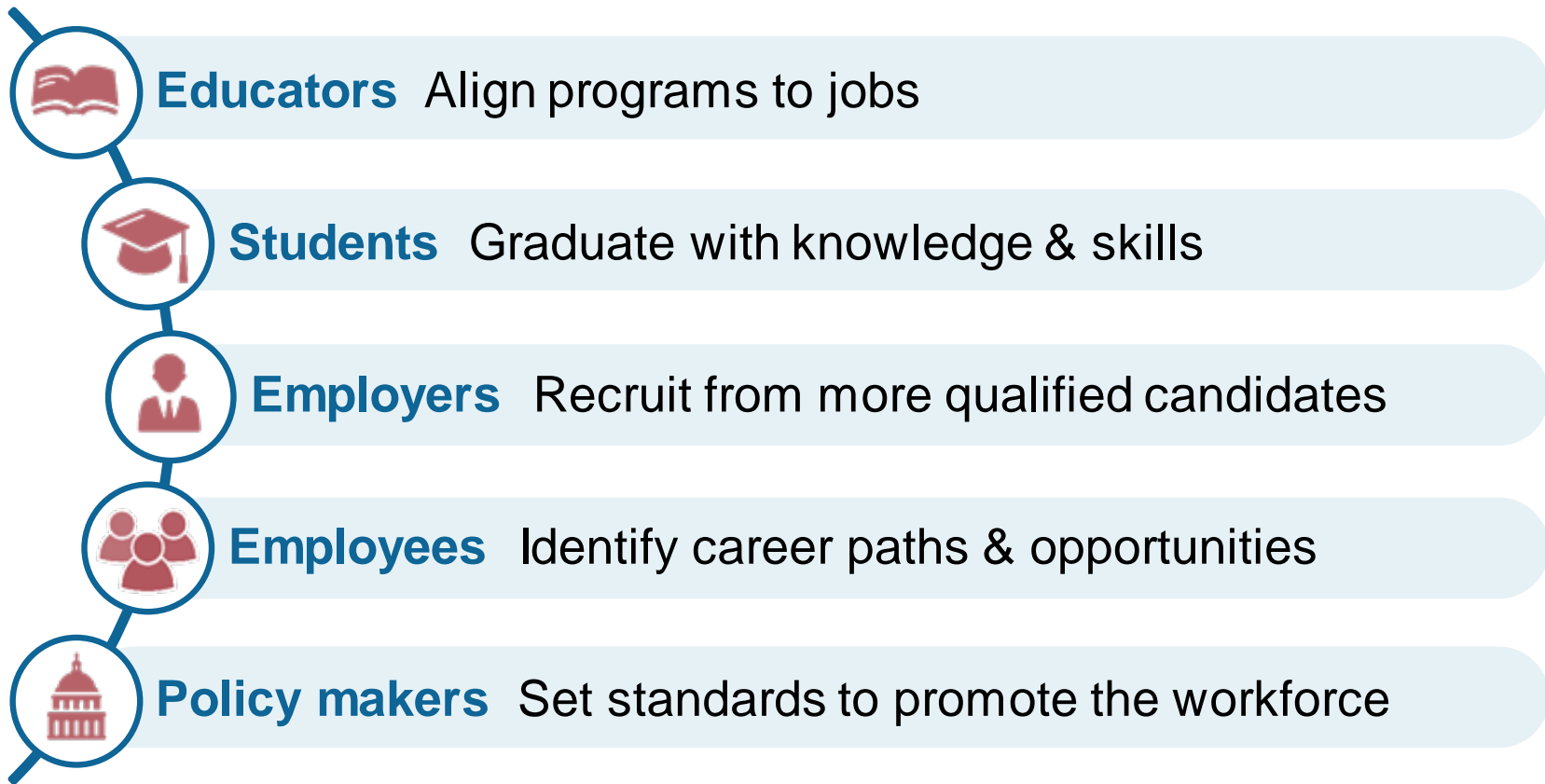National Cybersecurity Education & Awareness Branch (CE&A)

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CSRIC FCC Cybersecurity Workforce Working Group

Cybersecurity: Why it Matters

Vision for the Nation's Cyber Workforce

Educators Align programs to jobs

Students Graduate with knowledge & skills

Employers Recruit from more qualified candidates

Employees Identify career paths & opportunities

Policy makers Set standards to promote the workforce

The Foundation for our Nation's Cyber Workforce

The National Cybersecurity Workforce Framework

▶ 7 Categories, 30+ Specialty Areas

▶ Baselines knowledge, skills, and abilities & tasks

▶ Support for strategic workforce development

| ANALYZE | SECURELY PROVISION | OVERSIGHT AND DEVELOPMENT | COLLECT AND OPERATE | OPERATE AND MAINTAIN | PROTECT AND DEFEND | INVESTIGATE |

Creating a Strong Cybersecurity Team

The Cybersecurity Workforce Development Toolkit equips you with resources to:

- ✓ **PREPARE** for workforce development
- ✓ **PLAN** your cybersecurity workforce
- ✓ **BUILD** a high-performing cybersecurity team
- ✓ **ADVANCE** cybersecurity staff with career development opportunities

Available online at niccs.us-cert.gov/

CYBERSECURITY WORKFORCE DEVELOPMENT TOOLKIT
How to Build a Strong Cybersecurity Workforce
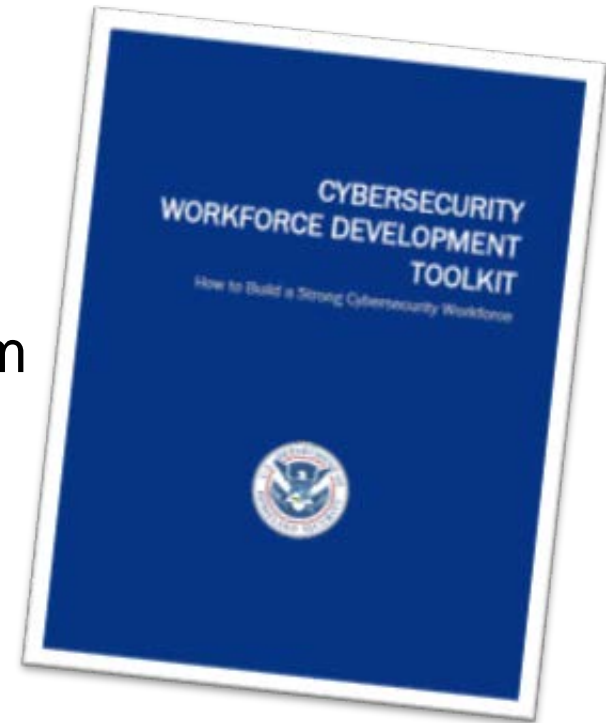
Prepare for Workforce Planning

Assess Your Workforce Planning Readiness

- ✓ Establish a vision for your cybersecurity workforce
- ✓ Use the Cybersecurity Workforce Planning Capability Maturity Model (CMM) to assess your organization's workforce planning readiness

**3 Workforce Planning Maturity Levels**

LIMITED PROGRESSING OPTIMIZING

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Plan for Your Cybersecurity Team

How to Plan for Your Team

- ✓ Understand your cybersecurity risk exposure and tolerance using the Cybersecurity Workforce Planning Diagnostic
- ✓ Inventory your cybersecurity workforce
- ✓ Determine and address gaps

Characteristics of High-Performing Cybersecurity Teams

Agile **Multi-functional** **Dynamic** **Flexible** **Informal**

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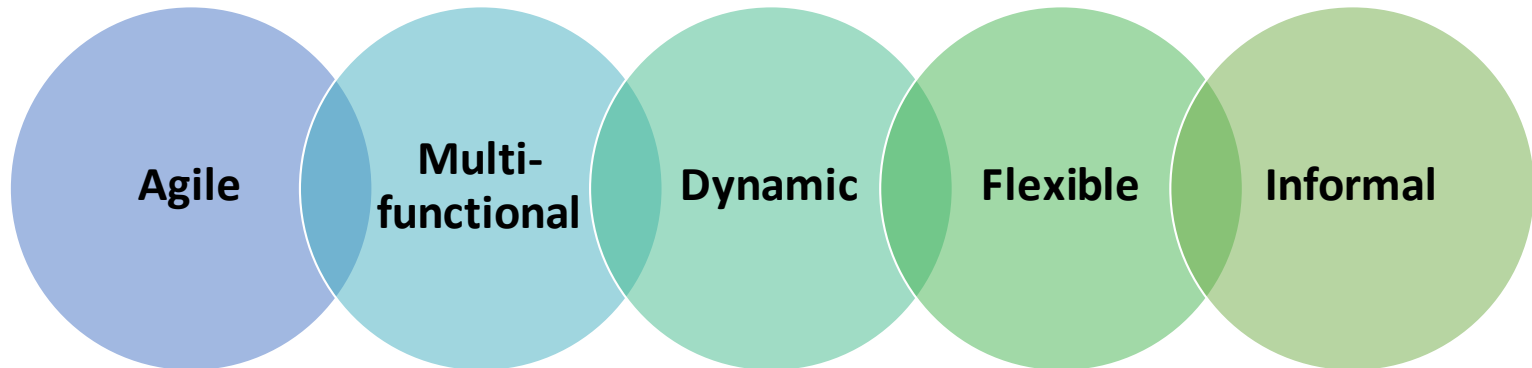
Build a High-Performing Cybersecurity Team

What Should a Cybersecurity Team Look Like?

- ✓ Align positions to the Workforce Framework
- ✓ Learn non-technical traits of cybersecurity professionals
- ✓ Use the recruitment checklist to hire top talent

Template – Align Positions to Workforce Framework

Position Title	[Fill in Position Title]
Primary Specialty Area(s)	[Fill in Specialty Area(s)]
Secondary Specialty Area(s)	[Fill in Specialty Area(s)]
Current Tasks Performed (i.e., specific job duties) – see general role examples in Workforce Framework Employer User Guide for sample wording	
Additional Tasks recommended by Specialty Area	

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Advance Your Staff

Develop Your People

- ✓ Take steps to retain staff at every level

- ✓ Develop career paths to help your staff navigate their careers

- ✓ Discover continuous development opportunities

Customize Sample Career Paths Based on Level
(e.g., Beginner, Intermediate, Expert)

CAREER PATH: BEGINNER LEVEL		
Suggested Experience & Credentials	Competencies and Sample Skills / KSAs	Suggested Training & Development Activities
Bachelor's Degree from an accredited program in a Computer Science-related OR 2 years relevant work experience	**Technical Competencies & Sample KSAs** • **Vulnerabilities Assessment** ○ Skill in the use of penetration testing tools and techniques • **Information Security/Assurance** ○ Skill in performing damage assessments **General Competencies** ○ Critical Thinking & Analytical Skills ○ Written & Oral Communication	**Sample Development Activities** • University Programs (e.g., George Mason University; Stevens Institute of Technology; Carnegie Mellon) • Government agency courses (e.g., IRM-NDU, NSA, DoD, Dept. of State DSTC, DHS certifications)

Training for Cyber Professionals

Search Courses
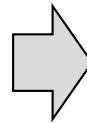
View Course Information

FedVTE

DHS offers free cybersecurity training for U.S. government and veterans!

✓ Available to Federal, State, Local, Tribal, and Territorial government and US veterans!

✓ Courses ranging from beginner to advanced levels

✓ 55,000+ active users

✓ 42 courses and growing. Popular courses include certification preparation for the following exams:

- Network +
- Security +
- Certified Information Systems
- Security Professional
- Certified Ethical Hacker

Fedvte.usalearning.gov

NICCS™ Website

The Nation's One Stop Shop for Cybersecurity Careers and Studies!

- ✓ 28,000+ visitors per month

- ✓ 2,000+ courses in the NICCS Training Catalog mapped to the National Cybersecurity Workforce Framework

- ✓ 100+ links to cybersecurity resources

- ✓ 15+ tools for managers, including a Cybersecurity Workforce Development Toolkit

- ✓ 10+ monthly events

- ✓ 10+ links to customized job searches

…and more coming soon!

niccs.us-cert.gov

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How to Reach Us

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