

# NICE

NATIONAL INITIATIVE FOR **CYBERSECURITY** EDUCATION

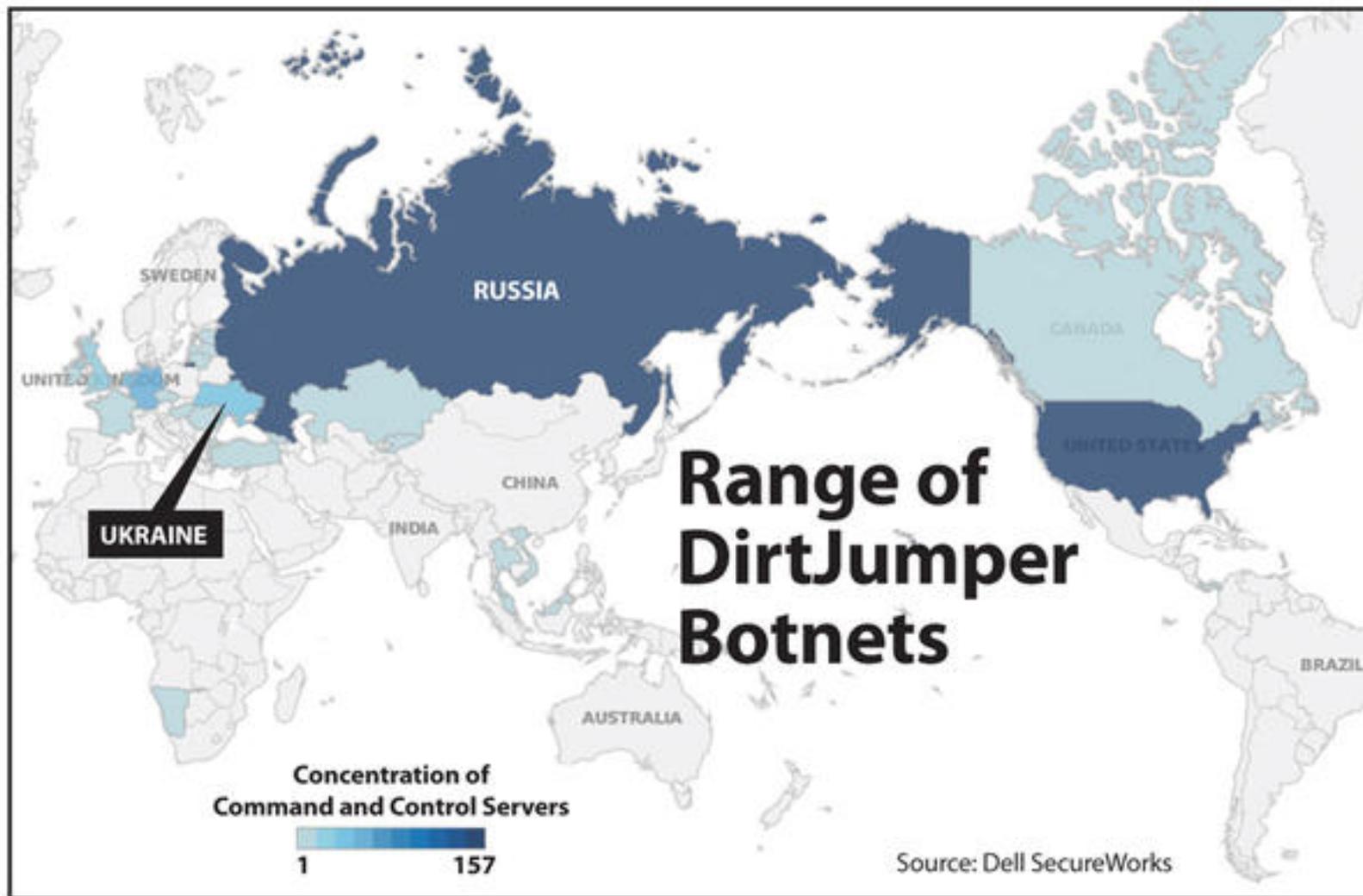
Federal Information Systems Security Educators  
March 19, 2014



## ***National Cybersecurity Workforce Framework***

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

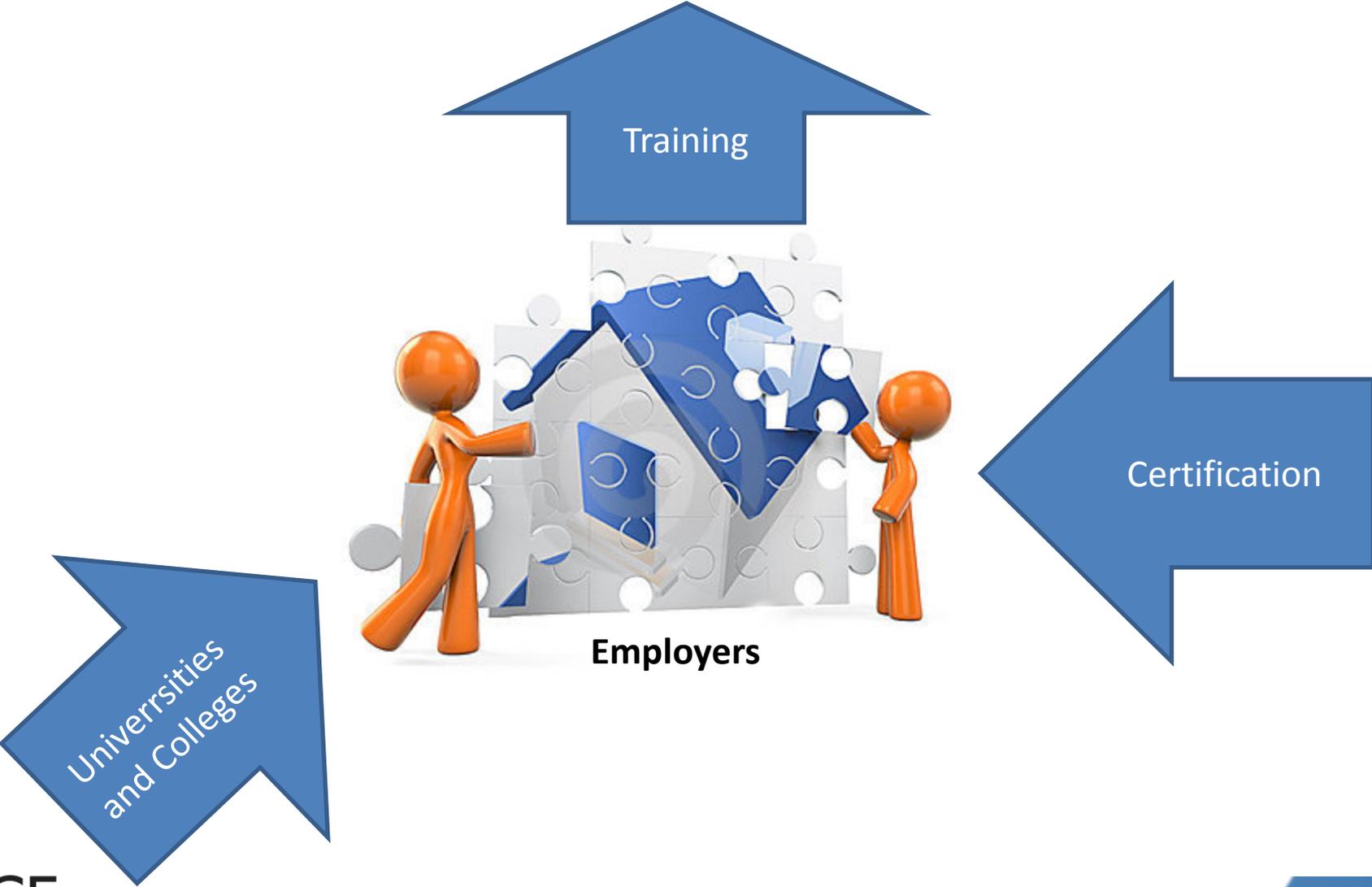
# THE CYBER THREAT LANDSCAPE



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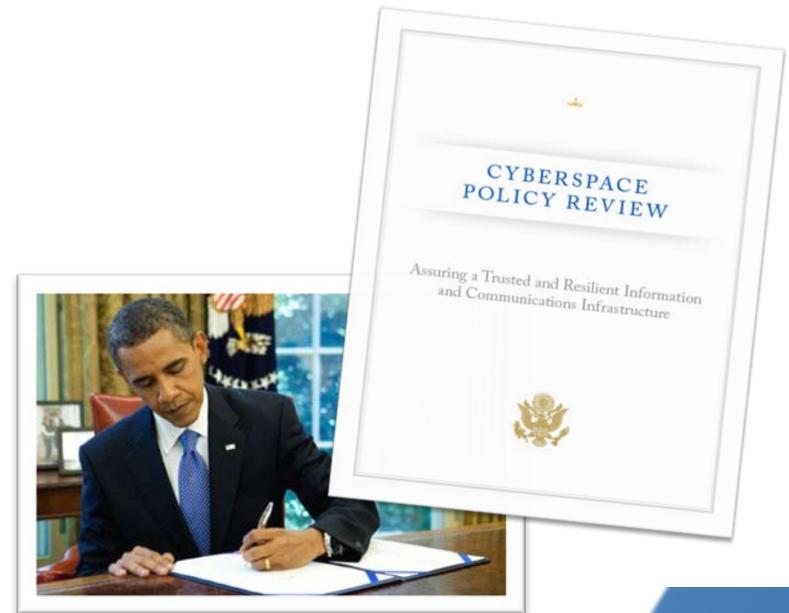
# CYBERSECURITY IS NOT HOMEBUILDING



# WHY CAN'T WE ALL JUST BE N.I.C.E.?

*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.*

- NICE was launched in March 2010 in response to national directives; born from the Comprehensive National Cybersecurity Initiative (CNCI) (of 2008), recommendation #8
- NICE is a nationally-coordinated effort comprising over 20 federal departments and agencies that focuses on cybersecurity awareness, education, training and professional development.



# THE SOLUTION

*NICE developed the National Cybersecurity Workforce Framework (the Framework) to codify cybersecurity work and to identify the specialty areas of cybersecurity professionals.*

## The Framework establishes:

- A common taxonomy and lexicon which organizes cybersecurity work into 31 specialty areas within 7 categories.
- A baseline of tasks, specialty areas, and knowledge, skills and abilities (KSAs) associated with cybersecurity professionals.

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

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



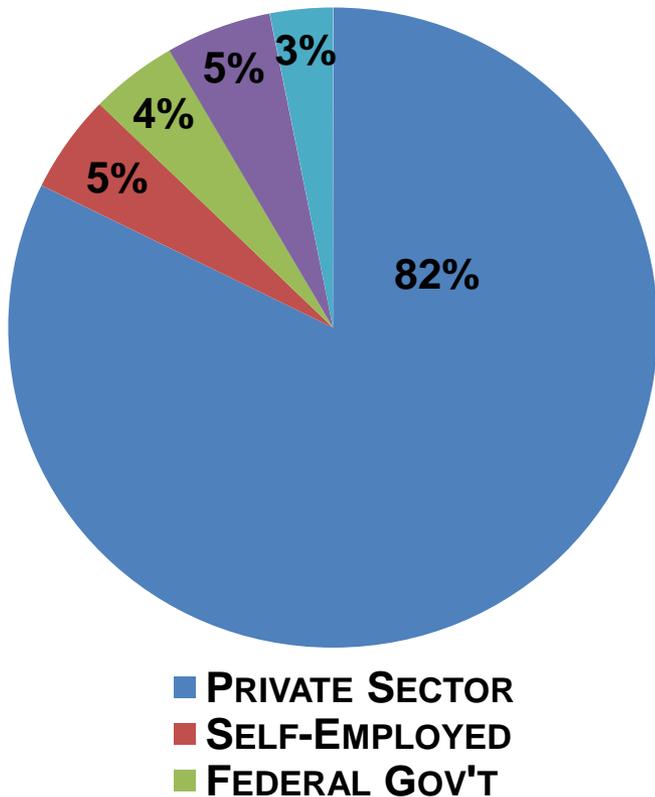
CYBERSECURITY  
**WORKFORCE**  
FRAMEWORK



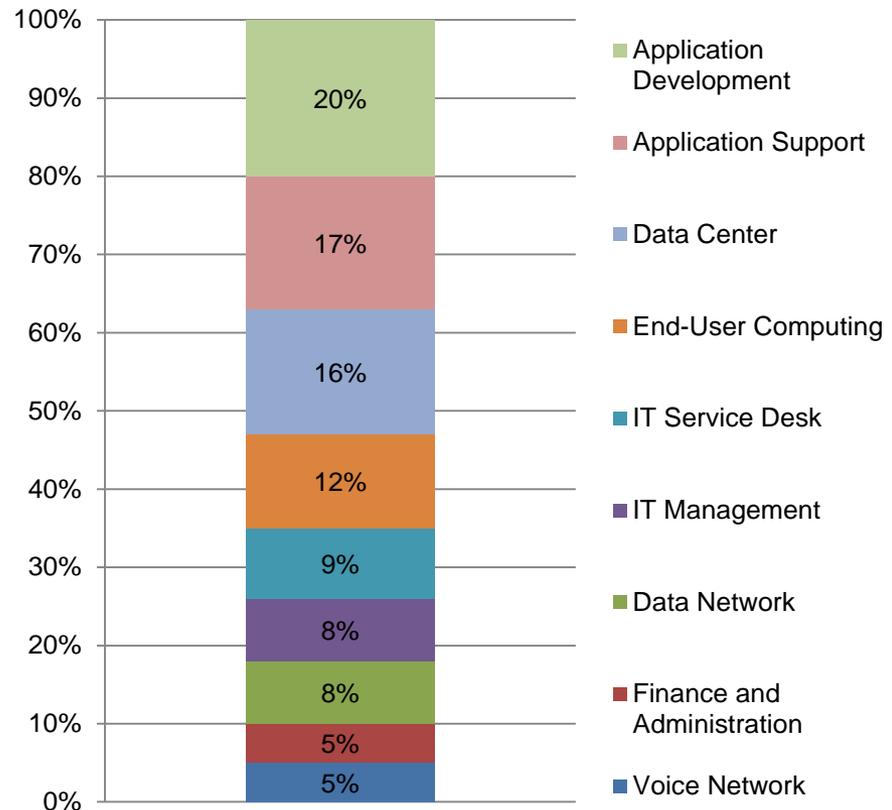
# U.S. IT WORKFORCE STATISTICS

According to the U.S. Bureau of Labor Statistics, there are approximately 4.0 million people employed in the U.S. IT labor workforce.

Percentage of IT Workers by Sector



Percentage of IT Workers by Technology Domain



# BENEFITS OF USING THE 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

# AND IT'S REQUIRED



The Director

UNITED STATES OFFICE OF PERSONNEL MANAGEMENT

Washington, DC 20415

JUL - 8 2013

## MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: ELAINE KAPLAN  
ACTING DIRECTOR 

Subject: Special Cybersecurity Workforce Project

The President has set the reduction of cybersecurity workforce skills gaps as one of his top 14 priority cross-agency performance goals for FY2013 (<http://goals.performance.gov/node/38552>). In support of this priority the U.S. Office of Personnel Management (OPM) is collaborating with the White House Office of Science and Technology Policy, the Chief Human Capital Officers Council (CHCOC) and the Chief Information Officers Council (CIOC) in implementing a special workforce project that tasks Federal agencies' cybersecurity, information technology (IT) and human resources (HR) communities to build a statistical data set of existing and future cybersecurity positions in the OPM Enterprise Human Resources Integration (EHRI) data warehouse by the end of FY2014.

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

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

- Interactive Workforce Framework
- Searchable Training Catalog
- Framework implementation how-to guide
- Stop-Think-Connect awareness materials
- Teaching & workforce development tools
- News and events

The screenshot displays the NICCS portal homepage. At the top, there is a navigation bar with links for 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 is the One Stop Shop for Cybersecurity Information!". Below the banner, there are several sections: "Information for" with a list of user roles (General Public, Students, Educators, Parents, etc.); "STAY SAFE ONLINE" with a link to a Cybersecurity How-To Guide; "EXPLORE SPECIAL TIES" with a link to explore 31 Cybersecurity Specialty Areas; "FIND COURSES" with a link to a training catalog; "WORKFORCE PLANNING" with a link to learn about skill gap analysis; and "UPCOMING EVENTS" with a calendar of events from February to June. At the bottom, there are sections for "Education Resources", "Training Resources", "Talent Management", "Research", and "DHS and NICCS Partners".

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

# A FEW BEST PRACTICES

- Use 3 digits to capture granularity
- Track people as well as positions
- Search by task, not title
- Leverage NICCS and FedVTE
- Develop career paths aligned to Framework
- Promote Framework adoption
- Get involved!

# Questions?

NICE will continue to share materials with cybersecurity professionals across the nation in the public, private, and academic sectors.

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

**Ben Scribner**

*National Cybersecurity Education & Awareness Branch*

*Tel (703) 235-5293, [Benjamin.Scribner@hq.dhs.gov](mailto:Benjamin.Scribner@hq.dhs.gov)*

**Visit the Framework here: <http://niccs.us-cert.gov/training/tc/framework>**

**Visit NICCS here: [www.niccs.us-cert.gov](http://www.niccs.us-cert.gov)**