Shaping the Future of Cybersecurity Education

Is N.I.C.E.

NATIONAL INITIATIVE FOR CYBERSECURITY EDUCATION (NICE)
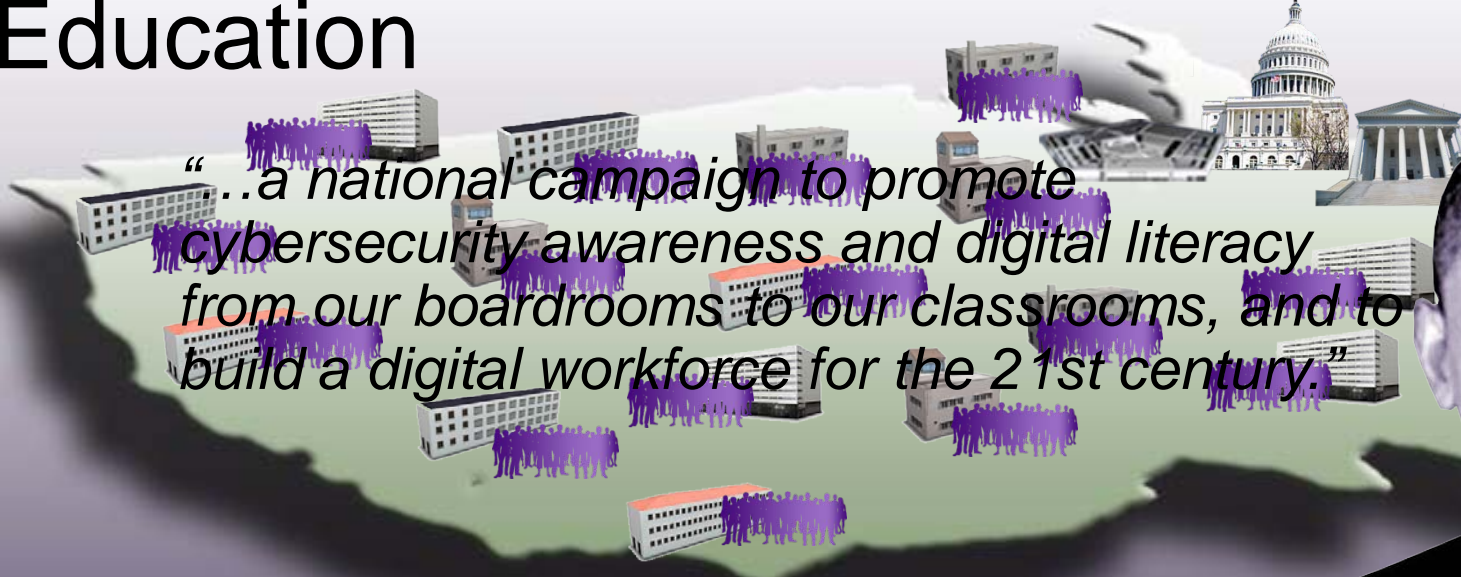
March 2011

60 Day Cyber Review

Building Capacity for a Digital Nation

- Promote cybersecurity risk awareness for all citizens;

- Build an education system that will enhance understanding of cybersecurity and allow the United States to retain and expand upon its scientific, engineering, and market leadership in information technology;

- Expand and train the workforce to protect the Nation's competitive advantage; and

- Help organizations and individuals make smart choices as they manage risk. *60-Day Cyber Review*
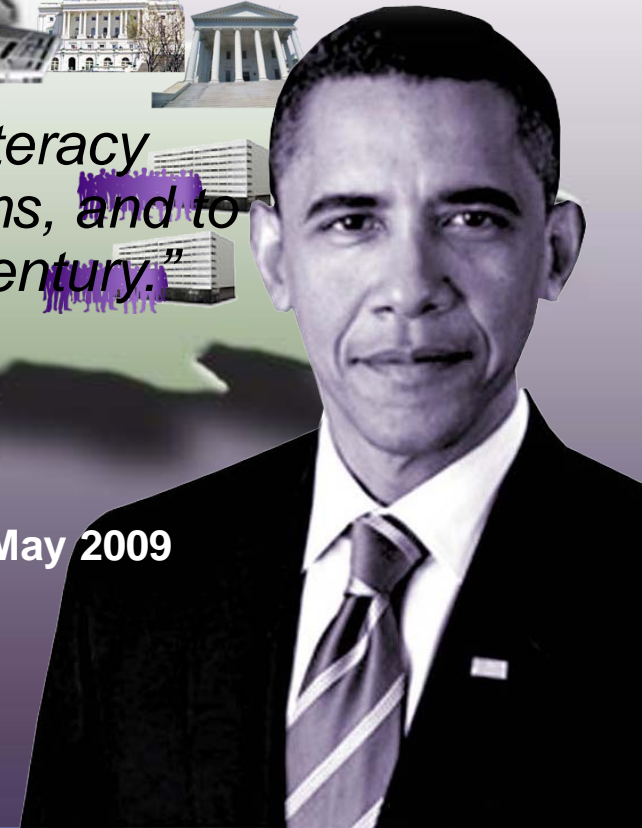
THE**VISION**

(U) National Initiative for Cybersecurity Education

" ..a national campaign to promote cybersecurity awareness and digital literacy from our boardrooms to our classrooms, and to build a digital workforce for the 21st century."

President Barack Obama, 29 May 2009

Expanded Focus of NICE

CNCI Initiative #8	National Education
Federal Focus →	National Focus
Federal Employee Awareness →	Public Awareness
Education/training focused on filling federal jobs →	K-12 and Higher Education
Federal Pipeline →	National Pipeline

THE PATH

TRACK 1
AWARENESS

National Cybersecurity Awareness – *Department of Homeland Security (*DHS): Public Service Campaigns

TRACK 2
EDUCATION

Formal Cybersecurity Education – *Department of Education (*ED), *National Science Foundation (*NSF) Co-Leads [Office of Science and Technology Policy (OSTP), Department of Labor (DOL), DHS supporting]: STEM education programs related to cybersecurity

TRACK 3
STRUCTURE

Federal Cybersecurity Workforce Structure – *Office of Personnel Management* (OPM) [Office of Management and Budget (OMB), Office of the Director of National Intelligence (ODNI) supporting]: Defined cybersecurity jobs, attract, recruit and retain strategies

TRACK 4
TRAINING

Cybersecurity Workforce Training and Professional Development Department of Defense **(**DoD), ODNI, DHS Tri-Leads:

- **General IT Use – Federal Chief Information Officer Council and DHS**
- **IT Infrastructure, Operations, Maintenance & Information Assurance – DoD, DHS**
- **Domestic Law Enforcement and Counterintelligence –** Department of Defense Cyber Crime Center (DC3), National Counterintelligence Executive (NCIX), Department of Justice, and DHS
- **Specialized Cybersecurity Operations – NSA**

Initiative #8 - Achievements

- Building of federal training programs on a variety of computer network programs

- Workforce Development Plans (work roles, competencies, knowledge, skills, and abilities (KSAs); that have become part of the framework for the national effort.

- Centers of Academic Excellence for Information Assurance extension to Community Colleges

- Building the virtual cybersecurity training environment for the Federal Government

- Expansion of the Department of Defense Cyber Crime Center (DC3), organization's computer forensic and analysis courses for the entire Federal government.

- Framework issues - identifying the main issues of workforce pipeline and need for consistent lexicon to build the national effort
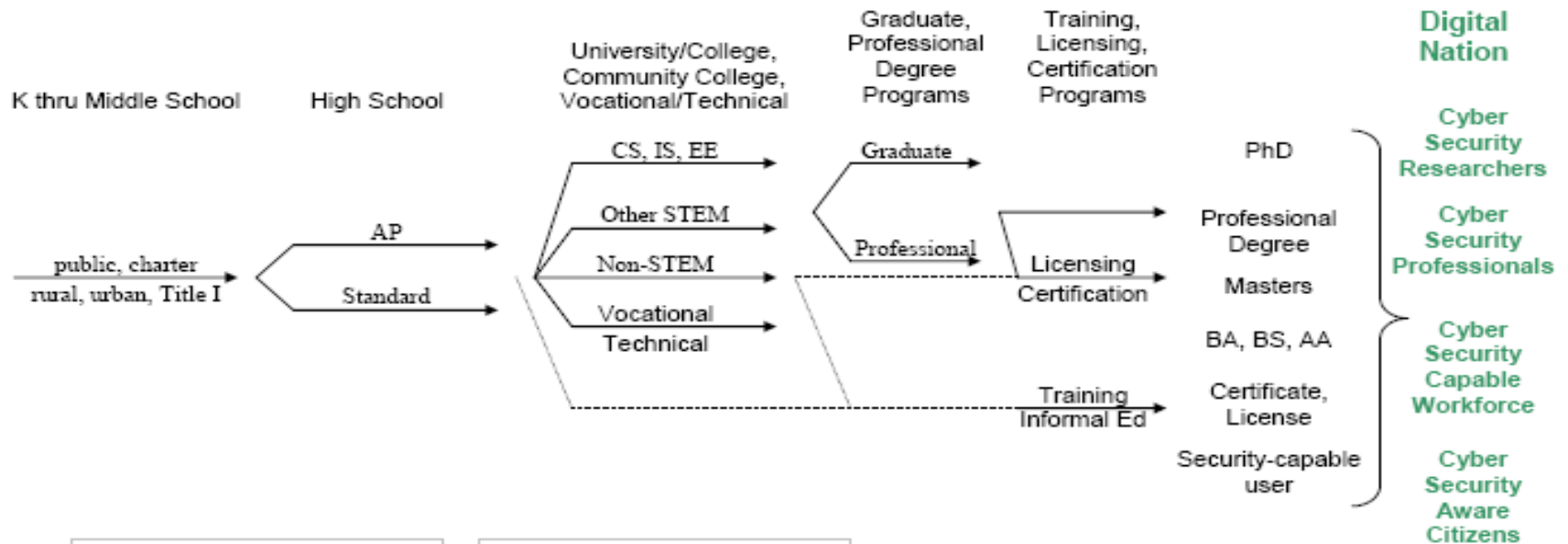
OVERALL LEAD: Cybersecurity Education

National Initiative for Cybersecurity Education

Lead:

National Institute of Standards and Technology – Ernest McDuffie, PhD
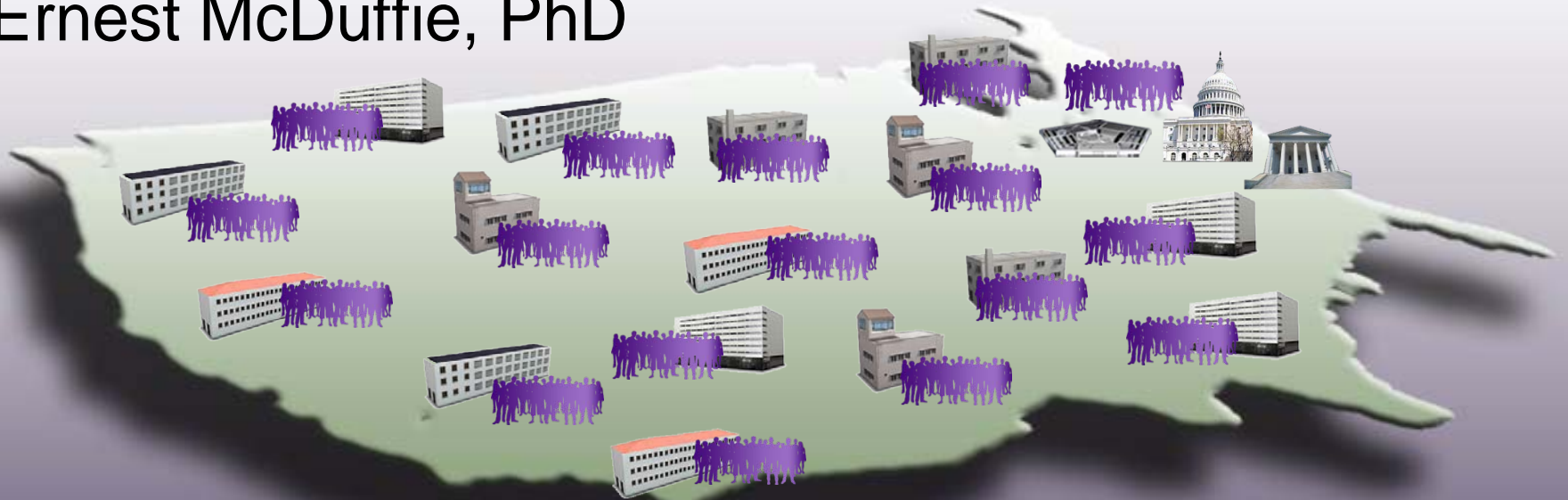
The Pipeline

TRACK 1: Public Campaign

TRACK
1

AWARENESS

National Cybersecurity Awareness

Lead:

Department of Homeland Security – Tim Fraser

TRACK 2: K-12 & Higher Education

TRACK 2
EDUCATION

Formal Cybersecurity Education

Co-Leads:

Department of Education – Michael Lach

National Science Foundation – Jan Cuny

TRACK 3: Recruitment, Hiring, Job-Series

TRACK
3
STRUCTURE

Cybersecurity Workforce Structure

Lead:

Office of Personnel Management – Maureen Higgins

TRACK 4: Training & Professional Development

TRACK 4

Training

Cybersecurity Workforce Training and Professional Development

Tri-Leads: ODNI/CHCO – Elizabeth Kolmstetter, PhD

DHS – Peggy Maxson

DOD – John Mills

QUESTIONS?

Contact Information

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