755,743

U.S. Cybersecurity Job Openings
- CyberSeek -

$6.9 trillion

Global Cost of Cyber Attacks in 2021
- FBI -

3,432,476

Global Cybersecurity Workforce Gap
– (ISC)2 –

OVERVIEW

1 **2019 Study**
NCyTE & CSSIA

2 **PURPOSE**
Goals & Stakeholders

3 **OTHER STUDIES**
National & Global

4 **CURRENT STUDY**
Phases & Call to Action

CAE
IN CYBERSECURITY
COMMUNITY

2019 Study

FIND JOB TRENDS
Which cybersecurity roles?

CAE TWO-YEAR
Community colleges

NICE FRAMEWORK
Work roles

12 COLLEGES
Self-selected to participate

88 ALUMNI
Interviewed in total

CSSIA
National Support Center for Systems
Security and Information Assurance

NCYTE CENTER

OUTCOMES

213	**Operate & Maintain**
⬆	**Network Operations Specialist & System Administrator**
45%	**CompTIA Security+ certification**
65%	**Alumni stated their program prepared them for their work**

2

PURPOSE

Goals & Stakeholders

STAKEHOLDERS

FACULTY

EMPLOYERS

STUDENTS

GOVERNMENT AGENCIES

NATIONAL SECURITY AGENCY

ORGS RELIANT ON CYBERSECURITY TALENT

3

OTHER STUDIES

(ISC)2 & University of Jyväskylä

(ISC)2 Global Workforce Studies

2004-present
Nearly 20 years of annual workforce studies

PRIORITIES
Top cybersecurity issues & primary concerns

SKILLS GAP
Impact of education, training, & certification

COMMUNITY VALUES
Gender gap
Diversity, equity, & inclusion

JYVÄSKYLÄ UNIVERSITY OF APPLIED SCIENCES (JAMK)

QUESTIONS

Where are graduated students employed?

What kind of work responsibilities do the students have?

RESPONDENTS

19 of 68 graduates

CATEGORIES

Protect & Defend
Operate & Maintain

WORK ROLES
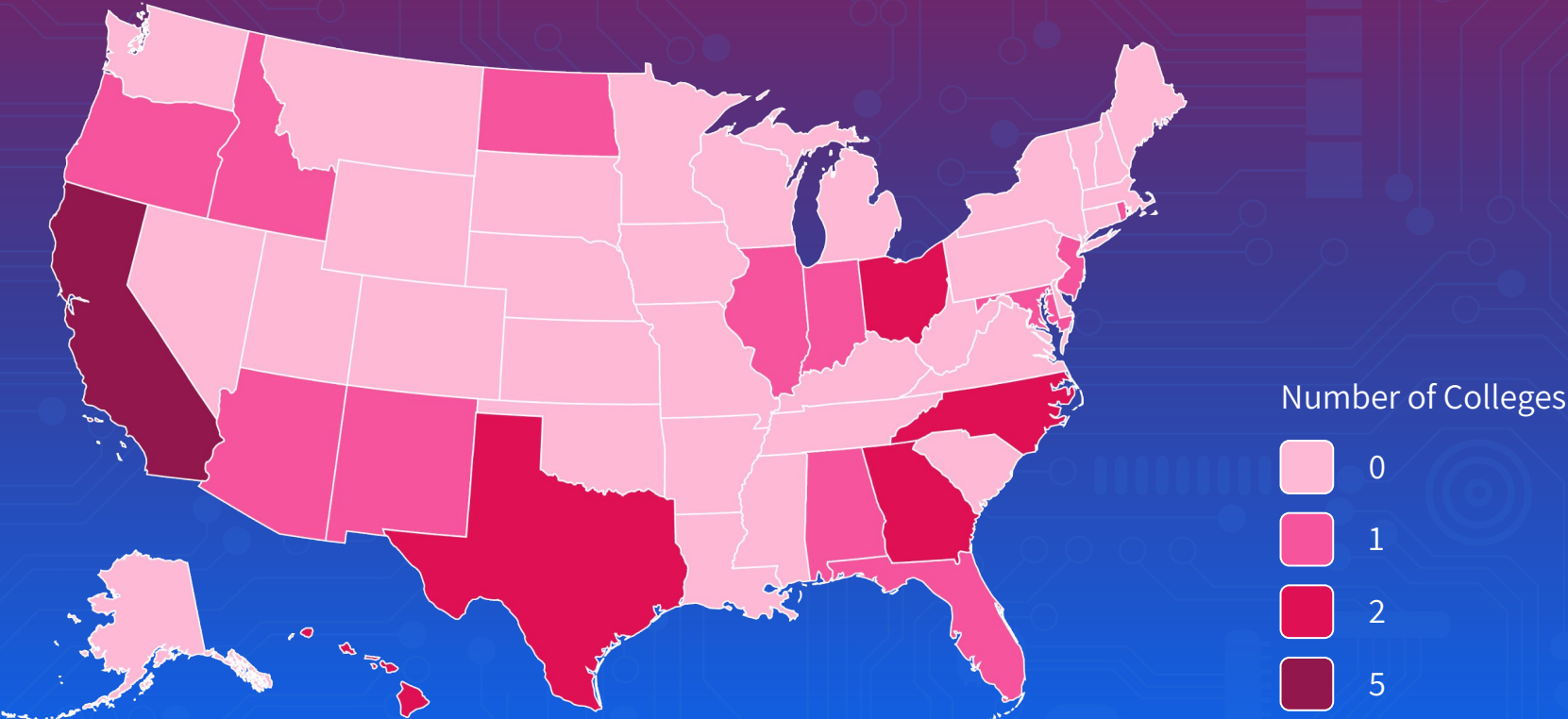
Cyber Defense Analyst
Network Operations Specialist

PHASED APPROACH

CAE-CD POCs	Program of Study Alumni
Program of Study NICE Framework Categories NICE Work Roles Program Resources Contact Alumni 2019-2023	Program Completed Prior Degrees & Continued Education Current Employment NICE Work Roles Program Resources Industry Certification Rate Importance of Education to Career
27	35

Participation by State

Number of Colleges
0
1
2
5

TIMELINE

May 20th

Open Surveys

June 15th

Close POC Survey

July 31st

Close Alumni Survey

Nov 30th

Publish Study

THANKS!

Tobi West

Doctoral Candidate, Dakota State University
Beacom College of Computer & Cyber Sciences

tobi.west@trojans.dsu.edu

https://www.research.net/r/CAE-CDPOC