



# NICE Community Coordinating Council Meeting Agenda

Date: January 27, 2021    Time: 3:30-5:00 p.m. ET

# I. Introduction and Ground Rules -

Susi Barraza, NICE Program Manager

## II. Opening Remarks

- a. Industry Co-Chair - Jon Brickey, Senior Vice President, Mastercard
- b. Government Co-Chair - Rodney Petersen, Director of NICE

# III. Standing Items

- a. Strategy Stories – New Developments that Align to NICE Strategic Plan

## Talent Attraction Strategies

Presented by Drew Repp, Content Manager, Community Insights, Emsi

- b. Report Roundup - Learning from Good Ideas

## **White Paper:** *Planning for the Future Through Workforce Development*

Presented by Gabriela Montes de Oca, Cybersecurity Program Officer,  
Organization of American States

- c. Framework Feature - Applications and Uses of Workforce Framework for Cybersecurity

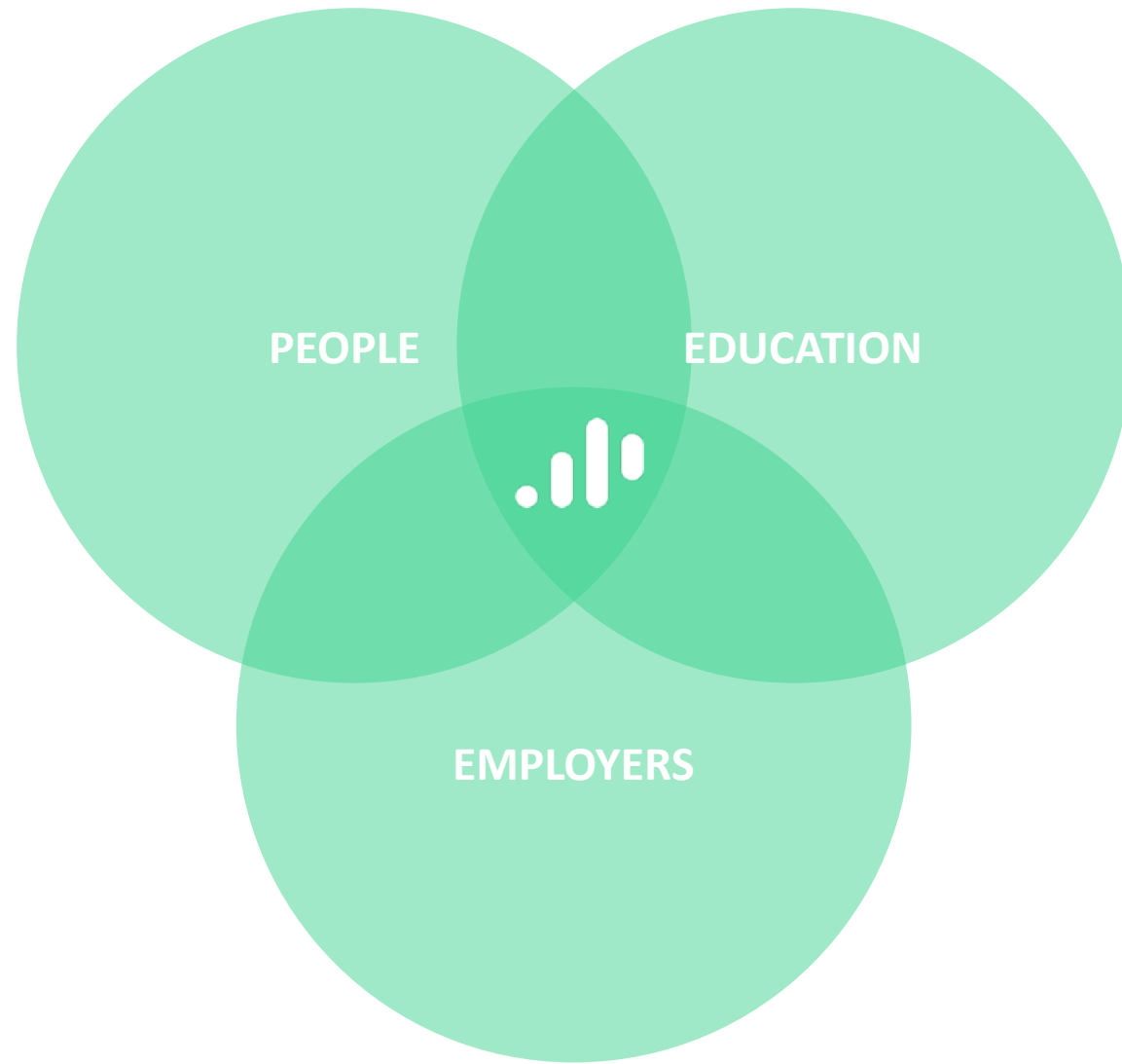
## **Update on the Federal Cybersecurity Workforce Coding Effort**

Presented by Jodi Guss, Human Capital Strategist, Office of Personnel  
Management

## Goal #3: Modernize the Talent Management Process to Address Cybersecurity Skills Gaps



Utilize new technologies such as machine learning and automated approaches to increase connections and fit between employers and job seekers



# Talent Attraction & Development

## Scorecard Rankings

1. Net migration
2. Overall job growth
3. Skilled job growth
4. Education attainment
5. Regional competitiveness
6. Annual openings per capita



# 5 phases of talent attraction and development

## Near Term

0 to 6 months: Attracting Talent

6 month to 2 years: Transferable Skills & Responsive Programs

## Long Term

2 to 4 years: Technical and Certificate Programs

4 to 7 years: Higher Education

7 to 10 years: Preparing for a Long-Term Future





# Cybersecurity skills gap research

## Build (Don't Buy)

A Skills-Based Strategy to Solve  
the Cybersecurity Talent Shortage

.| Emsi

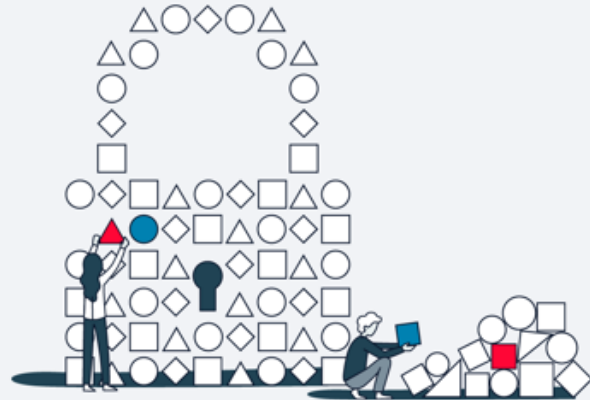
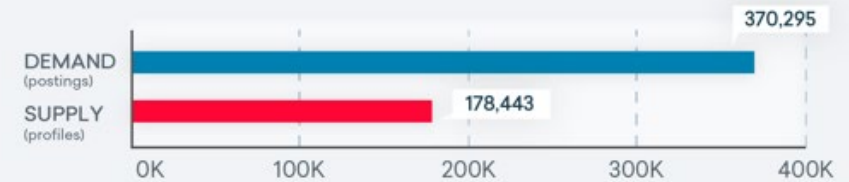


FIG 1.1

National cybersecurity demand  
is twice as great as supply

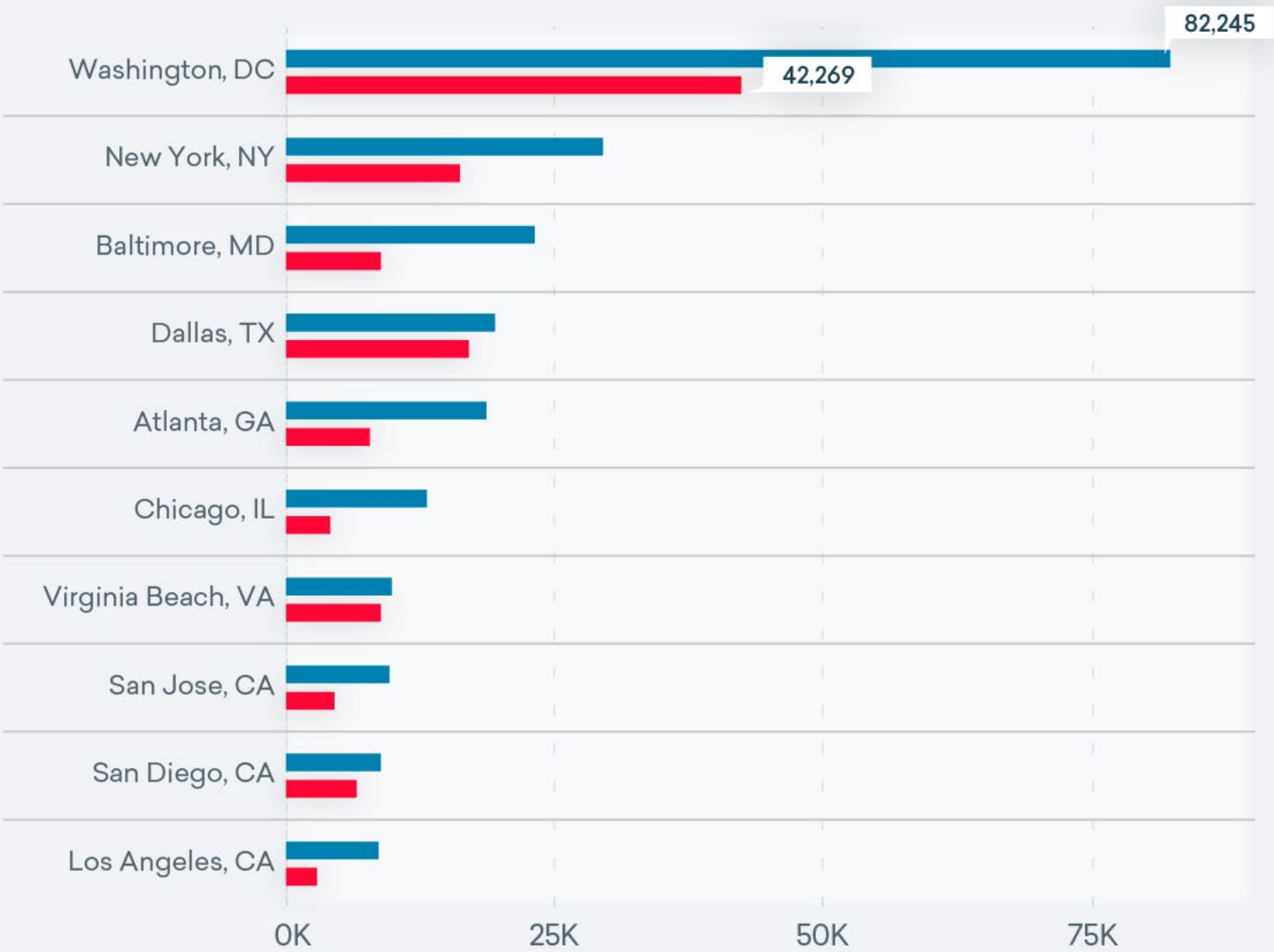


Source: Emsi Supply and Demand Estimate, 2020



FIG 1.4

Washington, DC  
leads the way in  
cybersecurity  
demand



Source: Emsi Supply and Demand Estimate, 2020

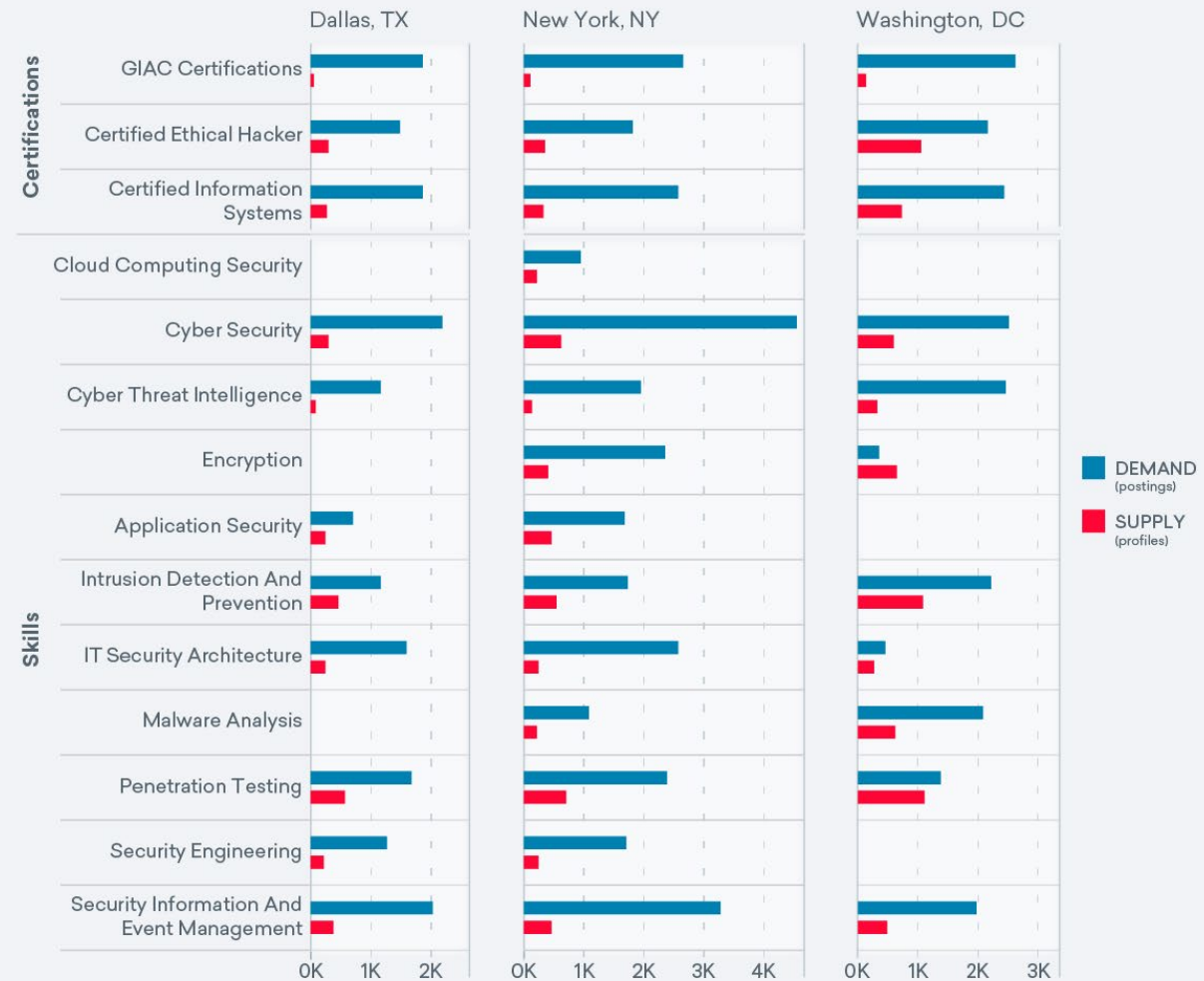
DEMAND  
(postings)

SUPPLY  
(profiles)

# Cybersecurity skills gap research

FIG 2.1

DC, NYC, and Dallas have similar gaps in critical skills



Source: Emsi Job Posting and Profile Analytics, 2020



# Cybersecurity skills gap research

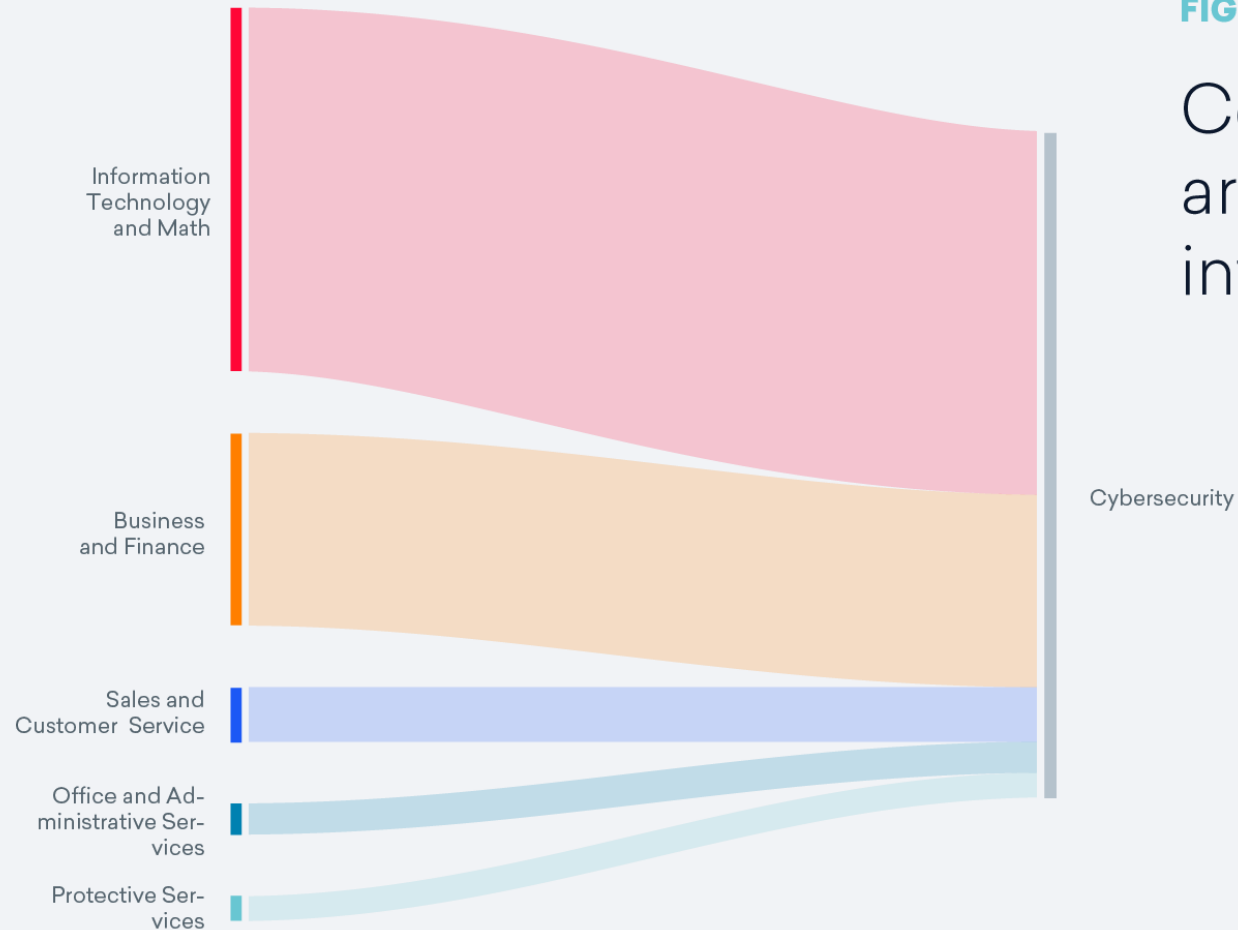


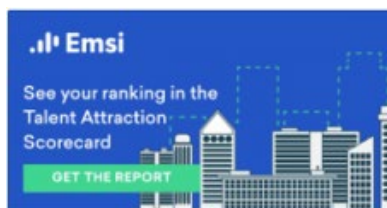
FIG 2.3

Common career areas that transition into cybersecurity

Source: Emsi Profile Analytics, 2020



# economicmodeling.com/research



## Fifth Annual Talent Attraction Scorecard

This year's Talent Attraction Scorecard unpacks how early data suggests existing trends in remote work and large city out-migration have been accelerated by COVID-19.

## Resilient Skills

The Senior Skills That the Class of COVID-19 Should Pursue

Emsi



## Resilient Skills

As Isaiah Berlin famously said: "A fox knows many things. A hedgehog knows one big thing." The resilient worker is both fox and hedgehog: they know a little about many things, and they know a lot about one or two subject matters. They are both specialist and generalist.

NEW REPORT

## Build (Don't Buy)

A Skills-Based Strategy to Solve the Cybersecurity Talent Shortage



## Build (Don't Buy): A Skills-Based Strategy to Solve the Cybersecurity Talent Shortage

The US has less than half of the cybersecurity candidates it needs to keep up with ever intensifying demand. For every 100 active postings, there are a mere 48 qualified candidates. So how can we solve the cybersecurity talent crisis?



## The Emsi Health Risk Index

Using Social Determinants of Health to Fight COVID-19 and Get the Economy Back on Its Feet.



## How Communities Can Attract and Retain Remote Workers

Attracting remote workers can be a great compliment to other economic development strategies. Learn how to attract them to your community!

## Using Skills to Strengthen Regions

A new way to help regions stay competitive in a fast-paced, talent-based labor market



## Using Skills to Strengthen Regions

Speaking the common language of skills can bring educators, companies, and workforce/economic developers together to address the talent needs of a specific region or industry.



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# CYBERSECURITY

## Planning for the Future Through Workforce Development

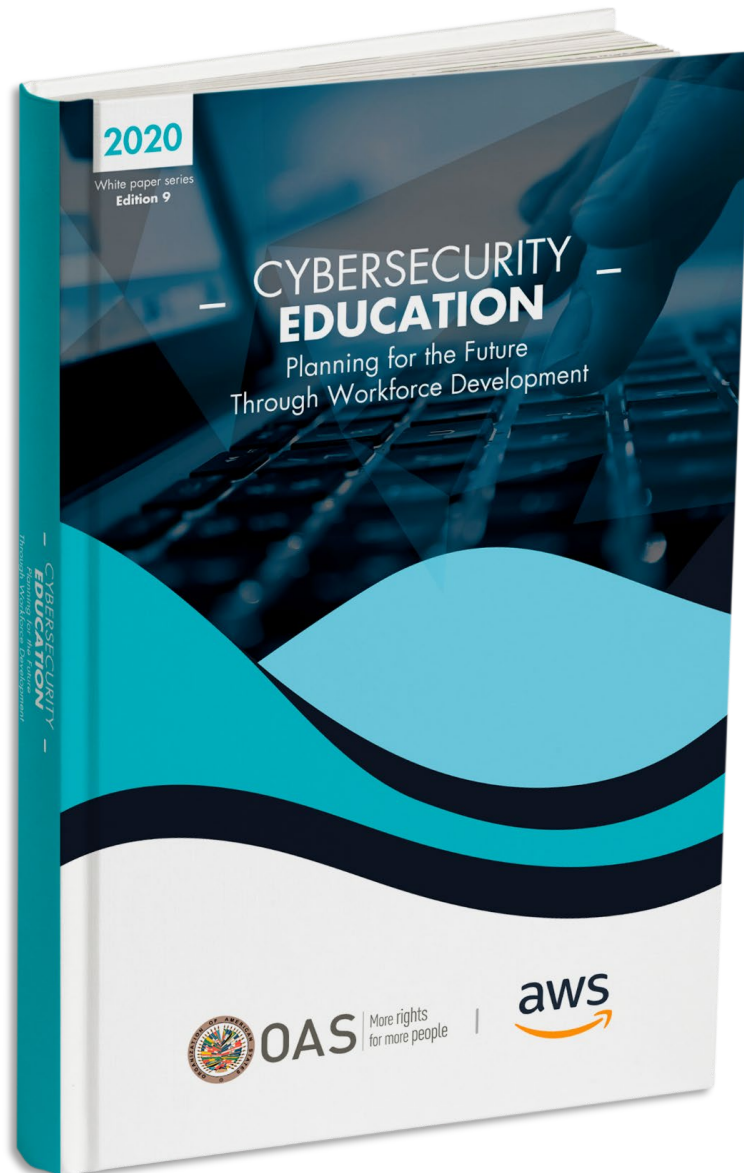
OAS - CICTE  
AWS



**OAS**

More rights  
for more people





- With the continuous increase in the number of malicious activities in cyberspace, a skilled workforce is needed.
- Policies to improve the cybersecurity skills of the workforce = benefits for the digital economy.
- This document outlines the steps to create a Cybersecurity Education Action Plan (CEAP) that includes:
  - Mechanisms to integrate cybersecurity education into the development of school curricula
  - Policies to address skills shortages in cybersecurity



# | Latin American Landscape



- The cost of cybercrime is US \$ 15 billion and US \$ 30 billion in 2017 = 0.28% and 0.57% of the region's GDP.
- The cybersecurity workforce gap is approximately 600,000 people according to (ISC) <sup>2</sup>
- Key issue: Cybersecurity education offers and the actions being taken to face these challenges and the reality of the region.

# National Cybersecurity Strategy & Education



**12** Countries have a national cybersecurity strategy.

- **Argentina:** 2 first objectives related to education and awareness.
- **Brazil:** 4/7 related objectives relate to R&D, workforce capacity building, skills development and an information security culture.
- **Chile and Colombia:** Education as a key feature to improve cybersecurity maturity.

# | Cybersecurity Education Action Plan (CEAP)



Participation of academia and the private sector at the beginning of the formulation of the framework



Importance of establishing governance rules and coordination mechanisms



Elaboration of a strategic plan



Standardization of the language used in the workplace and in the academic environment.

# | Workforce Development Lifecycle



Elementary and  
secondary school



Continuous  
training and  
certifications



Secondary  
Education and  
internships



Awareness



Research and  
Development

## | 3. The OAS' work



Cyberwomen  
Challenge



OAS-Cisco  
Academy



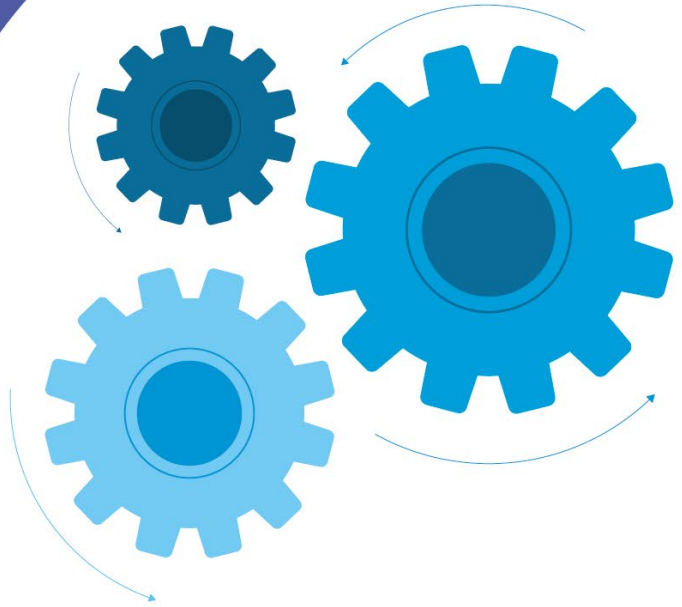
Citi Foundation "Creating  
a cybersecurity career  
path" and Citi Lab



Cybersecurity  
Innovation Fund

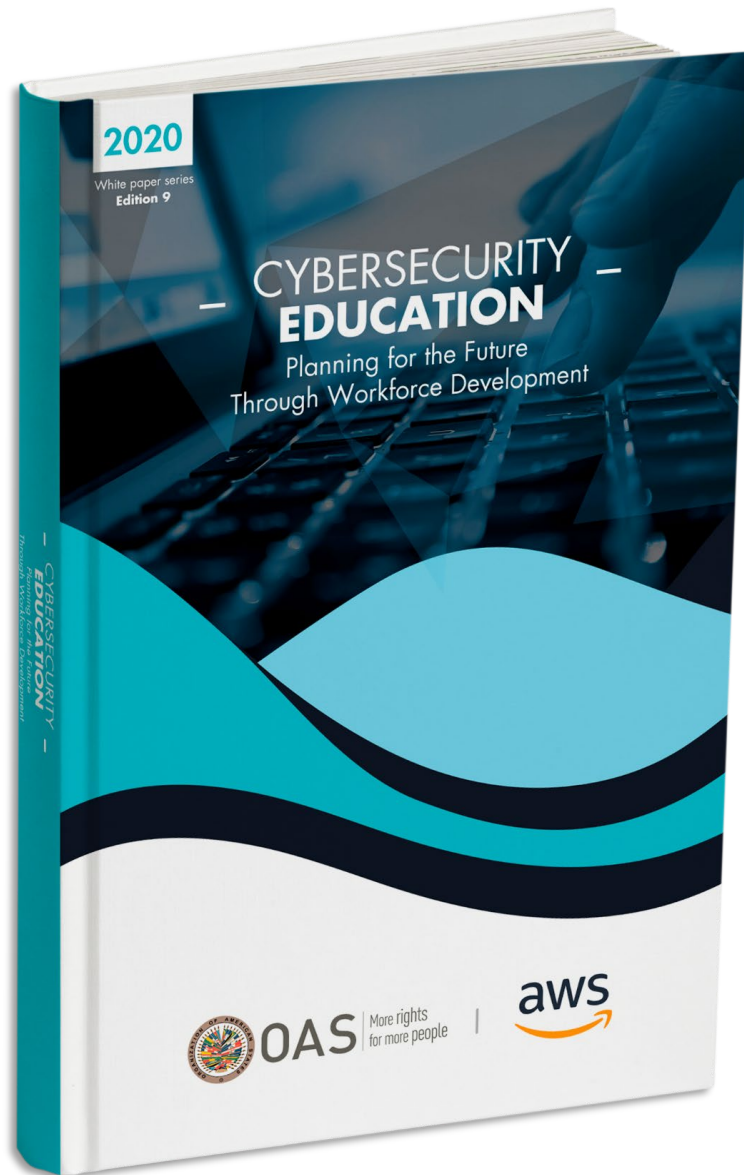


Cybersecurity  
Courses with FIU



## Recommendations

- A national approach to education and cybersecurity
- Tailored solutions at every stage of the workforce development life cycle
- clear and defined goals to prioritize and integrate cybersecurity education at all levels that guide the actions of policy makers
- Multi-stakeholder approach
- Monitoring mechanisms and indicators that assess progress towards the goals of the action plan.



[bit.ly/CyberEduPaper](https://bit.ly/CyberEduPaper)

**Thank you!**

Merci

**Gracias**

Obrigado

## **Gabriela Montes de Oca**

Cybersecurity Program Officer

Inter-American Committee Against Terrorism

OAS



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## OVERVIEW: Federal Cybersecurity Workforce Assessment Act Requirements and Timelines

(Table Updated January 26, 2021)

### LAW required us to...

- December 2015: Federal Cybersecurity Workforce Assessment Act directed us to 1) assign new cybersecurity codes, aligned to the NICE Framework, to positions requiring performance of IT, cybersecurity, or other cyber-related functions; and 2) identify and address critical cybersecurity skill needs.

### Identify positions performing cybersecurity functions through a coding system

- January 2017: OPM issued Government-wide guidance on assigning new cybersecurity codes that aligned to the Work Roles described in the NICE Framework.
- April 2017: Agencies issued internal guidance on assigning new cybersecurity codes to positions.
- December 2017: Shared service providers reprogramed agency systems to accommodate larger data field for cybersecurity codes.
- April 2018: Agencies reviewed positions and assigned new cybersecurity codes.

### Identify critical cybersecurity skill shortages through workforce planning

- April 2018: OPM issued Government-wide guidance for determining cybersecurity “Work Roles of Critical Need,” which are the greatest skill shortages in the most critical areas, in terms of Work Roles.
- April 2019: Agencies determined and reported their cybersecurity Work Roles of Critical Need; root causes for the shortages; and action plans, targets, and metrics to mitigate the shortages.

### Ensure we have critical cybersecurity skills

- April 2019 and beyond: Agencies implementing plans to address their cybersecurity Work Roles of Critical Need, and reporting progress annually through 2022.

# IV. Working Group Updates

## a. Promote Career Discovery

James Baker, Account Coordinator, Cybersecurity Evangelists; or Roland Varriale II, Cybersecurity Analyst, Argonne National Laboratory

## b. Transform Learning Process

Dr. Aurelia T. Williams, Interim Vice Provost for Academic Administration, Norfolk State University; or Richard Spires, Former CEO of Learning Tree International, Industry Co-chair of the Transform Learning Working Group

## c. Modernize Talent Management

Karen Jensen, Saaby Consulting; or Kevin Perry, Chief Cyber Training, DoD Cyber Crime Center/Cyber Training Academy; or Melissa Woo, Executive Vice President for Administration, Michigan State University

# V. Community of Interest Updates

## a. Apprenticeships in Cybersecurity

Tony Bryan, Executive Director, CyberUp; or Jennifer Oddo Executive Director, Strategic Workforce Education and Innovation, Youngstown State University

## b. Cybersecurity Skills Competitions

Amelia Phillips, Highline College; or Bradley Wolfenden, Business Development & Marketing Strategy, EmberSec

## c. K12 Cybersecurity Educators

Terrance Campbell, CCTE Cybersecurity Teacher, Shelby County Schools; or Laurin Buchanan, Secure Decisions

## d. NICE Framework Users Group

Karen Wetzel, Manager of the NICE Framework

# VI. Project Progress Reports

a. NICE Conference and Expo

Presenter: Randy Pestana, Florida International University

URL: <https://niceconference.org/>

b. NICE K12 Cybersecurity Education Conference

Presenter: Davina Pruitt-Mentle, NICE Lead for Academic Engagement

URL: <https://www.k12cybersecurityconference.org/>

c. Centers of Academic Excellence (CAE) in Cybersecurity Community

Presenter: Tony Coulson, California State University, San Bernardino

URL: <https://www.caecommunity.org/>



# 2021 NICE Conference

January 2021 Updates

# 2021 NICE Conference Program Committee

Academia	Industry/Not-for-Profit	Government
Raquel Hill, Spelman College	Kristin Royster, Bank of America	Doug Andre, DHS-CISA
Eman El-Sheikh, University of West Florida	Kelli Jordan, IBM	Andy Hanks, State of Montana
Tobi West, Coastline Community College	Brian Correa, SANS	Kofi Ansah-Brew, NIST-NICE
Ashley Podhradsky, Dakota State University	Jordana Siegel, Amazon Web Services	Matt Isnor, DOD
Zena Pouncey, DCSSGA	Jason Hite, Xcelerate Solutions	Kerry-Ann Barrett, OAS

# Active Developments

- 2021 NICE Conference will be held in Atlanta, GA
- Dates to be announced in February
- Georgia Academic Consortium
  - If you are a member of a Georgia college or university and want to help us promote this year's conference at your institution, please contact us at [info@niceconference.org](mailto:info@niceconference.org).
- Georgia Industry Consortium
  - If you are a member of a private sector or non-for-profit operating in the state of Georgia and want to help us promote to industries across the state, please contact us at [info@niceconference.org](mailto:info@niceconference.org).



# Contact Information

- For more information regarding the conference, please visit [www.NICEconference.org](http://www.NICEconference.org)
  - Subscribe to our distro list at the bottom of the conference webpage
  - You can also view last year's conference presentation in the "Past Events" tab
- For additional questions regarding the conference, please contact us at [info@niceconference.org](mailto:info@niceconference.org)
- Follow us on twitter at @NICEcybercon

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**NICE**  
NATIONAL INITIATIVE FOR  
CYBERSECURITY EDUCATION

 iKeepSafe

THE 2020  
**NICE K12**  
**VIRTUAL**  
CYBERSECURITY EDUCATION  
CONFERENCE



# POST-CONFERENCE UPDATE

NICE Community Coordinating Council Meeting – January 2020

[k12cybersecurityconference.org](https://k12cybersecurityconference.org)

# CONFERENCE SNAPSHOT

# WE \*ROCKED\* IT!!!

- 700+ Attendees including over 200 STUDENTS \* *MOST EVER!!* \*
- 100+ Speakers and Panelists
- 12 Workshops
- 30 Breakout Sessions
- First ever STUDENT TRACK
- TOTALLY REMOTE!!

THE 2020  
**NICE K12**  
**VIRTUAL**  
CYBERSECURITY EDUCATION  
CONFERENCE

[K12cybersecurityconference.org](https://www.nicek12.org)

#2020NICEK12

# CONFERENCE COMMENTS

*“Thank you so much for the wonderful conference. **It was great to network with so many people.** The sessions were great and very well planned. Best part was the leaderboard .. some of us got too competitive on that!”*

*“I have been to so many conferences in the last three months and I have to say **NICE K12 is the best one so far.** You guys have done a great job of creating ways for people to connect. The community board is great and getting to just know people with some humor it’s a great way to feel connected. Well done.”*

*“Another great conference even in a virtual environment. Well done!”*



**K12cybersecurityconference.org**

#2020NICEK12



# CONFERENCE SPONSORS & EXHIBITORS

## SPONSORS:



## EXHIBITORS:

Acceletrain by GBSI

Big Sandy Community & Technical College

Center for Cybersecurity Education

CompTIA

Cyber-Guild

Cyber.org

Cybint

IBM

iKeepSafe

ITEEA

Missouri Chamber of Commerce

National Cyber League

NCyTE

NICCS

NICE

Skill Struck

Start Engineering

Technology Student Association

Virginia Cyber Range



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#2020NICEK12

# CONFERENCE KEYNOTES AND PANELS

## NICE K12 VIRTUAL CYBERSECURITY EDUCATION CONFERENCE



**Keynote - Sylvia Acevedo**  
AUTHOR  
FORMER CHIEF EXECUTIVE OFFICER,  
GIRL SCOUTS OF THE USA

## NICE K12 VIRTUAL CYBERSECURITY EDUCATION CONFERENCE



**Student Keynote - Sam Grant**  
HIGH SCHOOL STUDENT, 11TH GRADE  
CYBER YOUTH REGISTERED APPRENTICE  
US DEPARTMENT OF LABOR (DOL)

## NICE K12 VIRTUAL CYBERSECURITY EDUCATION CONFERENCE



**Keynote - Roy Zur**  
CHIEF EXECUTIVE OFFICER  
CYBINT

## NICE K12 VIRTUAL CYBERSECURITY EDUCATION CONFERENCE



**Keynote - Alissa Abdullah**  
SR VICE PRESIDENT,  
DEPUTY SECURITY OFFICER  
MASTERCARD OPERATIONS & TECHNOLOGY

- SCHOOL COUNSELOR PANEL
- STUDENT PANEL
- FIRESIDE CHAT - Presidential Cybersecurity Education Award Winners

THE 2020  
**NICE K12**  
**VIRTUAL**  
CYBERSECURITY EDUCATION  
CONFERENCE

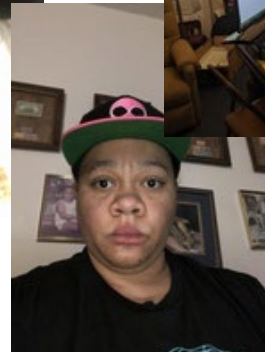
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#2020NICEK12




# CONFERENCE NETWORKING AND ENGAGEMENT

- DISCUSSION BOARDS
- BIRDS OF A FEATHER
- VIRTUAL MEETUPS
- CHAT
- GAMES & PRIZES



**NICE K12 Cybersecurity Education Conference**  
Dec 5 - 8, 2020

Sponsor level:  
Marquee Sponsor

 **Mastercard**

**MAIN NAVIGATION**

- Home
- Agenda
- Attendees
- Community**
- Sponsors
- Exhibitors
- Messages **23**

**RESOURCES**

- Session Q&A
- Video Gallery
- Logistics
- Speakers
- Documents

**Add a topic or social group**

**Managing Students with Distance Learning**

that many of our students are those that may not have your typical normative home environment and the stigma that comes with that may be detrimental to the students' success.

Simi Basu

We have made it optional as opposed to requirement. Also we do breakout rooms and lot of team projects for engagement.

Rich Miller

Just a question about the application used because Zoom is now encrypted end to end, protecting student identities. Is it Zoom that you are using or another application such as Hangouts or Skype?

Renee Bajor

zoom. I know some schools make it mandatory but ours doesn't. Unfortunately our district doesn't want to hold the students and their families accountable for any of their education, including attendance, participation, or grades.

Dec 6, 2020 2:41 PM

Karin Duran

For our school, they have made it full distance learning meaning zoom and online homework. Our administration does a really good job of keeping in mind the situation of many students and they try their best to help the whole new way of learning to be easier for the students, teachers, and

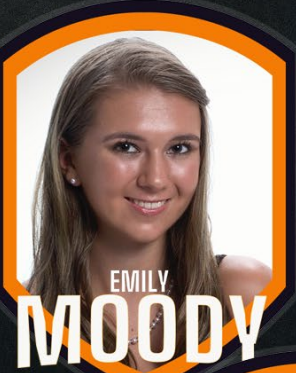
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# NATIONAL CYBER SIGNING DAY

## NATIONAL CYBER SIGNING DAY 2020



VIDEO  
AVAILABLE  
TO THE  
PUBLIC VIA THE  
NICE K12  
CONFERENCE  
WEBSITE!

THE 2020  
**NICE K12**  
**VIRTUAL**  
CYBERSECURITY EDUCATION  
CONFERENCE

[K12cybersecurityconference.org](https://k12cybersecurityconference.org)

#2020NICEK12

# STUDENT TRACK VIDEOS



Sponsored by GBSI - 200+ Students attended FREE

- 6 videos (4 from GBSI, 2 from IBM)
  - 'A Day in the Life' at the US Cyber Security Operations Center
  - Interview with a Hacker (Featuring Mark Rogers, the Tesla Hacker)
  - How I'm Hacking you Right Now!
  - Panel - What it takes to get a Cyber Job
  - Panel - So, What Exactly Does a Cybersecurity Professional Do Anyway?
  - What it takes to get a Cyber Job



In memory of Randy Ramos - CEO, GBSI  
NICE K12 Conference Planning Committee



[K12cybersecurityconference.org](https://www.k12cybersecurityconference.org)

#2020NICEK12

# 2020 CONFERENCE CONTENT ACCESS

## CONTENT FOR 2020 ATTENDEES

- ACCESS ALL 2020 CONFERENCE CONTENT VIA WEB BROWSER OR MOBILE APP throughout 2021 (link available on the conference website)

## FREE CONTENT - AVAILABLE TO THE PUBLIC

- Cyber Signing Day Video
- Student Track Videos



[K12cybersecurityconference.org](https://K12cybersecurityconference.org)

#2020NICEK12



***SAVE THE DATE***

# NICE K12

CYBERSECURITY EDUCATION  
C O N F E R E N C E

**DECEMBER 6-7, 2021**

[k12cybersecurityconference.org](https://k12cybersecurityconference.org)

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# VII. Closing Remarks and Next Meeting Reminder

Academic Co-Chair - Marni Baker-Stein, Chief Academic Officer and Provost, Western Governors University

**Next NICE Community Meeting:** Wednesday, February 24, 2021 at 3:30 p.m. ET