NICE Community Coordinating Council
Meeting Agenda

Date: March 24, 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. Academic Co-Chair - Marni Baker-Stein, Chief Academic Officer and Provost, Western Governors University

c. Government Co-Chair - Rodney Petersen, Director of NICE

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
III. Standing Items

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

*Howard Community College STEM Challenge Grant: A Response to Cybersecurity Workforce Demand in Central Maryland*

Presented by Dr. Patrick Valdivia, Manager of Computing and Cyber Lab Services, Howard Community College, and Minah Woo, Associate Vice President, Continuing Education/Workforce Development, Howard Community College University

URL: [https://www.eda.gov/oie/stem/2020/](https://www.eda.gov/oie/stem/2020/)

b. Report Roundup - Learning from Good Ideas

*Remote Work in the Capital Region*

Presented by JB Holsten, CEO, Greater Washington Partnership

Howard Community College STEM Talent Challenge

HCC was recently awarded one of the inaugural EDA STEM Talent Challenge grants which seeks to increase placements in central Maryland in the following NICE Framework Roles:

1. Service Technical Support
2. Network Operations Specialist
3. Cyber Defense Analyst
4. Software Developer

We have apprenticeship occupations in each of the above 4 roles. Additional placements will be made for Business Intelligence Analysts (non-cyber position).

As part of the grant, HCC is developing new programs in:

1. Cloud Operations and Security
2. Data Analytics
Modernizing Talent Management Through Apprenticeship

Since February 2020, HCC has partnered with a national company that has sponsored 49 IT Apprentices (includes clearance with polygraph) and 5 Software Development Apprentices (uncleared)

IT Apprenticeships include: A+, Net+, Sec+, CCNA
Software Apprenticeships include: various Microsoft Azure certs (dependent on occupation)

For program details, visit howardcc.edu/apprenticeship
Multiple Pathways/Diverse Workforce

Career History of IT Apprentices:
• Prior IT Experience
• Military
• Nursing
• Human Resources
• Accounting and finance
• Unemployed/underemployed

Race/Ethnicity of IT/Software Apprentices (%)

For more information, please contact: pvaldivia@howardcc.edu
III. Standing Items

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

*Howard Community College STEM Challenge Grant: A Response to Cybersecurity Workforce Demand in Central Maryland*

Presented by Dr. Patrick Valdivia, Manager of Computing and Cyber Lab Services, Howard Community College, and Minah Woo, Associate Vice President, Continuing Education/Workforce Development, Howard Community College University

URL:  [https://www.eda.gov/oie/stem/2020/](https://www.eda.gov/oie/stem/2020/)

b. Report Roundup - Learning from Good Ideas

*Remote Work in the Capital Region*

Presented by JB Holsten, CEO, Greater Washington Partnership

Remote Work in the Capital Region

J.B. Holston, CEO, Greater Washington Partnership

March 19, 2021
THE CAPITAL REGION FROM BALTIMORE TO RICHMOND

Our region has great diversity, tremendous assets, and immense potential. We have an intertwined economic future and our ability to thrive depends on the success of us all.

The super-region of Maryland, Virginia and the District – from Baltimore to Richmond – is the 3rd largest economy in the US and the 7th largest in the world.

The Partnership is uniquely positioned, with a broad coalition, to understand the gaps and identify goals across the Region, to track specific progress against those goals, and to catalyze solutions that benefit us all.

115 federal labs and federally-funded research and development centers

46% of the population 25 years+ hold Bachelor’s degree or higher

184 languages spoken, 175 international embassies

53 Fortune 1000 companies headquartered in MD, DC, VA

4 significant airports, two major shipping ports
**SKILLS AND TALENT**
Breaking the mold

Skills and Talent drives our ability to remain competitive and develop a sustainable pipeline.

We aim to make the Capital Region the most diverse digital tech workforce in the country by partnering with employers and educators to build industry-aligned digital tech pathways.

---

**REGIONAL MOBILITY**
Bending the curve

Regional mobility expands our options for employment and housing; it enables the connection of people, ideas, and innovation.

Our priorities are connecting the super region, improving the consumer experience, ensuring equitable access, and integrating innovation across jurisdictions.

---

**INCLUSIVE GROWTH**
Changing the narrative

Inclusive Growth is the moral and economic imperative of our time.

Our pillars are empowering small and medium-sized businesses; supporting diverse innovation ecosystems; fostering better employment outcomes for Black and LatinX workforce; and addressing long-term systemic DEI organizational barriers.
Remote Work In The Capital Region Implications For The Region And An Inclusive Recovery


JB Holston
jholston@greaterwashingtonpartnership.com

THANK YOU

GREATER WASHINGTON PARTNERSHIP
FROM BALTIMORE TO RICHMOND FOSTERING UNITY ADVANCING GROWTH
III. Standing Items

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

*President's Cup Cybersecurity Competition*

Presented by Michael Harpin, CISA

URL: [https://presidentscup.cisa.gov/](https://presidentscup.cisa.gov/)

d. Research Review - Highlighting Research Results or Topics for Further Study

*Securing a Nation: Improving Federal Cybersecurity Hiring in the United States*

Presented by Will Markow, Managing Director, Human Capital Management and Emerging Technologies, Burning Glass Technologies

URL: [https://www.burning-glass.com/research-project/cybersecurity-securing-nation](https://www.burning-glass.com/research-project/cybersecurity-securing-nation)
President’s Cup Cybersecurity Competition

Implementing NICE Framework with Challenge Development
Executive Order 13870 called for the establishment of the competition to identify and reward the best cybersecurity practitioners in the US Government executive workforce, strengthen our nation’s cybersecurity talent, spread awareness of the cybersecurity profession and incentivize career in cyber defense.

- Competition must relate to skills from NICE Framework.

- CISA has successfully created and run the President’s Cup for the past two years.
How is the NICE Framework Used?

- The NICE Framework is integrated in the initial stages of planning and development for the competition to ensure a well-rounded competition and that challenges relate to real-world scenarios.
  - Shift in team dynamics between 2019 and 2020 to better match NICE Framework.
- The NICE Framework will be used as the focal point for future challenge development.
President’s Cup 2019

- Two Tracks – Teams and Individuals
- Challenges mapped to categories from EO 13870 and NICE Framework.
- Leveraging NICE Framework categories led to successful competition but using lower levels could target specialized skill sets.

### Teams Round 1 Gameboard

<table>
<thead>
<tr>
<th></th>
<th>Analyze and Investigate</th>
<th>Collect and Operate</th>
<th>Operate and Maintain</th>
<th>Protect and Defend</th>
<th>Securely Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>President’s Cup 2019</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Little Compromise

- Category: Analyze and Investigate
- Difficulty Level: 250
- Executive Order Category: Big Data Analysis
President’s Cup 2020

- NICE Framework work-role based.
  - Two separate individual tracks.
- Work Roles for competition were determined based on experience and insights from PresCup Team
- Work Roles and Tasks identified in gameboard

Individual Track A
Incident Response/Forensics

Individual Track B
Exploitation/Vuln Assessment
Future Considerations for President’s Cup and NICE Framework

- Continued use and promotion of NICE Framework within President’s Cup.
- Explore employment trends in work roles, tasks, and competencies.
  - Identifying additional areas of NICE Framework to incorporate in order to address all aspects of cybersecurity.
- Examine ways to leverage NICE Framework to target competitions towards personnel interested in or starting a cyber career.
PRESIDENT’S CUP
CYBERSECURITY COMPETITION

Michael Harpin
michael.harpin@cisa.dhs.gov

FOR MORE INFORMATION: CISA.GOV
III. Standing Items

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

*President's Cup Cybersecurity Competition*

Presented by Michael Harpin, CISA

URL: [https://presidentscup.cisa.gov/](https://presidentscup.cisa.gov/)

d. Research Review - Highlighting Research Results or Topics for Further Study

*Securing a Nation: Improving Federal Cybersecurity Hiring in the United States*

Presented by Will Markow, Managing Director, Human Capital Management and Emerging Technologies, Burning Glass Technologies

URL: [https://www.burning-glass.com/research-project/cybersecurity-securing-nation](https://www.burning-glass.com/research-project/cybersecurity-securing-nation)
The federal government is the largest U.S. employer of cybersecurity workers, but federal hiring is fragmented.

Public data on the overall federal cybersecurity workforce is limited, hindering attempts to enhance workforce development efforts.

Securing a Nation aims to quantify the federal cybersecurity workforce and make data-driven recommendations for enhancing federal cybersecurity hiring.
QUANTIFYING THE FEDERAL CYBERSECURITY WORKFORCE

OUR APPROACH

1. Identified Jobs Across 165 Unique Federal Hiring Entities

2. Mapped Federal Jobs to Burning Glass Data and NICE Framework

3. Analyzed Jobs with Cyber Skills, Credentials, or Titles
WHAT DID WE LEARN ABOUT THE FEDERAL CYBERSECURITY WORKFORCE?

- **Workers Join the Federal Government but don’t Stay**: nearly 1 in 5 cyber workers leave the federal government each year, and 27% of new hires leave within a year.

- **Pay Gap Problems Persist**: Private sector employers pay cyber workers 23% more than the federal government, but entry-level salaries are comparable.

- **Federal Workers Aren’t Future Ready**: Private sector is 87% more likely to request emerging skills.

- **There is a Dearth of Federal Workers Securing IT Infrastructure**: private sector employers are over twice as likely to request jobs in the Securely Provision NICE Workforce category.

- **Education Requirements Need Right-Sizing**: Federal cyber jobs are nearly four times as likely to request a graduate degree than jobs in the private sector, but also dramatically less likely to request a bachelor’s degree.
HOW CAN THE FEDERAL GOVERNMENT IMPROVE ITS CYBERSECURITY WORKFORCE?

- Expand recruiting to skill-adjacent and more diverse talent pools
- Modernize capabilities with rearchitected role descriptions and targeted training of future-ready skills
- Increase compensation of all kinds where possible
- Reevaluate credential and experience requirements
- Build new opportunities for upward mobility
- Standardize cybersecurity role descriptions and nomenclature
- Support the broader ecosystem of cybersecurity workforce development
THANK YOU!

Where to Access the Report:

https://www.burning-glass.com/research-project/cybersecurity-securing-nation/

For More Information Contact:

Will Markow
Managing Director
wmarkow@burning-glass.com
burning-glass.com
617-227-4800
IV. Working Group Updates

a. Promote Career Discovery
   James “Jimmy” Baker, Cybersecurity Evangelist and Author; 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, Instructor, Learning Tree

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

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
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 Brad Wolfenden, EmberSec

c. K12 Cybersecurity Educators
   Terrance Campbell, CCTE Cybersecurity Teacher, Shelby County Schools; or Laurin Buchanan, Secure Decisions

d. NICE Framework Users
   Karen Wetzel, Manager of the NICE Framework

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
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: Felicia Rateliff, Director of Operations & Programs, iKeepSafe
   URL: https://www.k12cybersecurityconference.org/

c. Centers of Academic Excellence (CAE) in Cybersecurity Community
   Presenter: Amy Hysell, Cybersecurity Center, California State University, San Bernardino
   URL: https://www.caecommunity.org/

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
SAVE THE DATE

2021 • VIRTUAL
NICE K12
CYBERSECURITY EDUCATION
CONFERENCE

DECEMBER 6-7, 2021

k12cybersecurityconference.org

THE CONFERENCE FOR K12 CYBER EDUCATORS

#NICEK12
CALL FOR SPEAKER PROPOSALS

SUBMISSIONS OPEN APRIL 13, 2021
SUBMISSION DEADLINE JUNE 18, 2021

k12cybersecurityconference.org
KEY DATES

• THURSDAY, MARCH 25 - FIRST PLANNING COMMITTEE MEETING

• APRIL 13 – CALL FOR SPEAKER PROPOSALS OPENS

• JUNE 18 – CALL FOR SPEAKER PROPOSALS CLOSES

• MID AUGUST – EARLY-BIRD REGISTRATION OPENS, AGENDA GOES LIVE

• LATE OCTOBER – EARLY-BIRD REGISTRATION CLOSES

• DECEMBER 4-5 – PRE-CONFERENCE WORKSHOPS
### SPONSOR & EXHIBIT

#### YEAR-ROUND MISSION SPONSOR

<table>
<thead>
<tr>
<th>Sponsor Level &amp; Benefits</th>
<th>TERABYTE $5000 (3 available)</th>
<th>GIGABYTE $3500 (10 available)</th>
<th>MEGABYTE $2000 (20 available)</th>
<th>GENERAL $1000 (unlimited)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complimentary registrations</td>
<td>✓ (6)</td>
<td>✓ (4)</td>
<td>✓ (3)</td>
<td>✓ (2)</td>
</tr>
<tr>
<td>Logo on website and app sponsor pages</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Complimentary Exhibitor Showcase virtual table on Whova conference platform</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Email list of opt-in conference attendees</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Logo on pre-conference email blasts &amp; social media</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ability to add items to virtual attendee goodie bag</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Branded Track &amp; Zoom room (Example: “Track 2, Sponsored by MasterCard”)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXHIBITOR VIRTUAL BOOTH:**

- $750 – For-Profit Companies
- $500 – Non-Profit Orgs

Email [conference@ikeepsafe](mailto:conference@ikeepsafe) for more info
QUESTIONS/IDEAS

FOR QUESTIONS, COMMENTS, IDEAS..

CONTACT FELICIA RATELIFF

conference@ikeepsafe.org
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: Felicia Rateliff, Director of Operations & Programs, iKeepSafe
   URL: https://www.k12cybersecurityconference.org/

c. Centers of Academic Excellence (CAE) in Cybersecurity Community
   Presenter: Amy Hysell, Cybersecurity Center, California State University, San Bernardino
   URL: https://www.caecommunity.org/

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
VII. Featured Topic

INFOSEC Institute Study on NICE Framework
Megan Sawle, Vice President, Marketing, INFOSEC Institute

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #
2021 Cybersecurity Role & Career Path Clarity Study

Using the NICE Workforce Framework for Cybersecurity to recruit talent & upskill teams
81% of orgs are at least considering aligning job descriptions to NICE.

They were also 676% more likely to report well-defined cybersecurity roles.

And 57% more satisfied with their ability to fill open cybersecurity roles.

Research says: Workforce frameworks work.
### Industry participation

<table>
<thead>
<tr>
<th>Industry</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government (Federal, State &amp; Local)</td>
<td>56</td>
<td>15%</td>
</tr>
<tr>
<td>Military &amp; Defense Contractors</td>
<td>51</td>
<td>14%</td>
</tr>
<tr>
<td>Technology</td>
<td>23</td>
<td>6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>22</td>
<td>6%</td>
</tr>
<tr>
<td>Energy, Utilities &amp; Waste</td>
<td>19</td>
<td>5%</td>
</tr>
<tr>
<td>Finance</td>
<td>19</td>
<td>5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>19</td>
<td>5%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>18</td>
<td>5%</td>
</tr>
<tr>
<td>Education</td>
<td>17</td>
<td>5%</td>
</tr>
<tr>
<td>Media &amp; Internet</td>
<td>17</td>
<td>5%</td>
</tr>
<tr>
<td>Hospitality</td>
<td>15</td>
<td>4%</td>
</tr>
<tr>
<td>Retail</td>
<td>15</td>
<td>4%</td>
</tr>
<tr>
<td>Business Services</td>
<td>14</td>
<td>4%</td>
</tr>
<tr>
<td>Consumer Services</td>
<td>14</td>
<td>4%</td>
</tr>
<tr>
<td>Construction</td>
<td>13</td>
<td>3%</td>
</tr>
<tr>
<td>Law Firms &amp; Legal Services</td>
<td>12</td>
<td>3%</td>
</tr>
<tr>
<td>Transportation</td>
<td>12</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>2%</td>
</tr>
<tr>
<td>Minerals &amp; Mining</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>5</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Organization size

- 50,000+ staff: 15%
- 1,000-5,000 staff: 40%
- 10,001-20,000 staff: 14%
- 5,001-10,000 staff: 16%
- 20,001-50,000 staff: 15%
81% of orgs at least considering mapping job descriptions to NICE

<table>
<thead>
<tr>
<th>Intent to align cybersecurity job descriptions to NICE Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job descriptions already mapped to NICE</td>
</tr>
<tr>
<td>In progress</td>
</tr>
<tr>
<td>Considering it</td>
</tr>
<tr>
<td>No intent</td>
</tr>
</tbody>
</table>

N = 311; Data excludes those who reported no familiarity with NICE
Interest spans all organization sizes

![Chart showing intent to align cybersecurity job descriptions to NICE Framework by org size.](chart.png)
And it’s working. Very well.
Likely due to improved role clarity
Orgs of all sizes want help scaling NICE mapping efforts.
Bringing it all together

Job description
Employer maps to NICE

NICE Framework

Training
Vendor maps learning objectives to NICE
## Outcome: Role-based employee dev plan

<table>
<thead>
<tr>
<th>Course name</th>
<th>Knowledge Statement</th>
<th>Skill Statement</th>
<th>Example Knowledge &amp; Skill Statements</th>
</tr>
</thead>
</table>
| Cisco Certified CyberOps Associate               | K0058, K0332, K0565 (plus 7 more)                        | S0173           | K0058: Knowledge of network traffic analysis methods  
                                                                 |               | S0173: Skill in using security event correlation tools                                               |
| CERT-Certified Computer Security Incident Handler | K0161, K0177, K0179 (plus 10 more)                       | S0365, S0173    | K0161: Knowledge of different classes of attacks (e.g., passive, active, insider, close-in, distribution attacks)  
                                                                 |               | S0365: Skill to design incident response for cloud service models                                    |
| Incident Response Fundamentals                   | K0042, K0106, K0287 (plus 9 more)                        | S0003           | KO106: Knowledge of incident response and handling methodologies.  
                                                                 |               | S0003: Skill of identifying, capturing, containing and reporting malware                            |

Partial mapping for demonstration only.
Let’s work together!

Megan Sawle
VP Marketing, Infosec
megan.sawle@infosecinsitute.com
linkedin.com/in/megan-sawle/
VII. Closing Remarks and Next Meeting Reminder

Next NICE Community Meeting:  Wednesday, April 28, 2021 at 3:30 p.m. ET

To dial in by phone, dial one of the following numbers, enter the participant PIN followed by # to confirm:+1 (415) 466-7000, PIN 1675270 # | +1 (760) 699-0393, PIN 7500851098 #