**NICE Working Group**

**Meeting Minutes**

**Date: May 22, 2019 Time: 3:30 PM ET**

**SharePoint:** [https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Pages/home.aspx)

# Introduction and Ground Rules

## Danielle Santos, NICE Program Manager, welcomed participants to the meeting. The NICE Working Group (NICEWG) is setup to provide a mechanism for collaboration between academia, government and industry, and to discuss strategies and actions to aid in workforce development.

## During this meeting the Adobe Connect chat box feature should be utilized to provide feedback and ask questions.

## Danielle urged all participants to collaborate and share information. The NICE Working Group [mailing list](mailto:nicewg@nist.gov) is a convenient way to disseminate information. The [SharePoint site](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Competitions/SitePages/Home.aspx) stores meeting agendas and minutes, documents and member information.

# NICE Program Office Updates

## Rodney Petersen shared some activities happening in the Program Office. The newest is the Executive Order signed by the President in early May.

### The executive order consists of two major sections: one relating to the Federal cybersecurity workforce and one relating to the nation's workforce. The workforce is deemed a critical asset for the country for national security and economic prosperity.

### The executive order notes the reality of a mobile workforce within the government and the country.

### The [NICE Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework) can assist as the basis for cybersecurity skill requirements.

### Note the NICE [webinar](https://www.nist.gov/news-events/events/2019/05/nice-webinar-presidential-executive-order-americas-cybersecurity) as reference providing an overview of the executive order.

### The executive order is not intended to be certain things:

#### It is not a national strategy for workforce development. Last September the government issued a National Cybersecurity Strategy that included workforce.

#### Other segments in the strategy related to workforce are covered by separate executive orders. This newest executive order is not intended to be the ultimate document on the subject.

#### Federal hiring authorities are not covered extensively in this executive order because these areas are covered elsewhere in detail.

## Upcoming events

### The call for proposals for the annual NICE Conference has closed.

### The NICE [webinar](https://www.nist.gov/news-events/events/2019/06/nice-webinar-tools-federal-cybersecurity-workforce-toolbox) on June 19th will focus on the federal cybersecurity workforce and tools.

### The program office will be looking for examples of how the NICE Workforce Framework is being used in the field. NICE will be collecting data as required by the executive order. People can send usage ideas or instances to [Nist.nice@nist.gov](mailto:Nist.nice@nist.gov)

# Opening Remarks

## Jason Hite, Industry Co-chair, provided the update.

### Jason noted a theme of cybersecurity being everyone's responsibility in an organization.

### As these executive orders come out, it's important to review how everyone interacts and understand knowledge transfer in an organization.

# Standing Items

## Strategy Stories

Objective 2.1: Improve education programs, co-curricular experiences, and training and certifications

### Karen Elzey, Associate Executive Director, Workcred, presented on "Connecting Certifications and Degrees. "

#### Karen spoke about a new initiative partnering with the Association of Public and Land Grant Universities and the University Professional and Continuing Education Association.

#### The initiative seeks to explore how students can earn both degrees and certifications as part of their four-year degree program. They are examining 5 areas: Cybersecurity/IT, Healthcare, Liberal Arts, Manufacturing, and Retail/Hospitality.

#### There will be a series of convenings across the U.S. including a convening to be held at San Jose State University in July. Teams will be coming from across the country to participate.

#### Universities may not be familiar with certification bodies. Expected outcomes include better understanding of relationships between universities and certification bodies, stronger relationships and improved dialogue between these entities, and a framework on which to build pilot programs that can be tested and scaled.

#### Certification bodies want better relationships with universities. The hope is to see earning certifications and degrees, in the same course of study, be more of a norm for students.

#### NICE will be represented at the San Jose State convening. GIAC, ISACA, (ISC)2 and others will also be in attendance.

#### The program is made possible through a grant from the Lumina Foundation. The grant was written for work with four-year institutions. Certifications are more integrated in community college programs than 4-year institutions at present. Workcred is interested in seeing certifications become part of for-credit programs. They are seeking to learn from successes with community colleges as well as lessons learned for the final report.

#### See the presentation and find more information [here](https://www.ansi.org/news_publications/news_story?menuid=7&articleid=f7dd2f87-1376-48c4-9cb7-0a15d30ec87d).

## Metric Moment

### Susan Hansche, DHS, presented on FISMA Awareness, Training, and Workforce Metrics.

#### They use SP 800-53r4 for awareness and training. Training of phishing is an internal CIO FISMA metric. The OIG metric is different from the FISMA metric.

#### Agencies are required to report quarterly on the number of users, the targeted community, summary of procedures, the number of users who passed, the number who reported phishing, etc. Some agencies may send test phishing emails to all users including feds, contractors, and others.

#### FISMA wants to determine what is being done for anti-phishing training.

#### Usually the phishing email is sent and then the results are observed. People often see through the basic phishing attempts.

#### Organizations will do different things with the information. They may just observe what is being reported as phishing during a specific time.

#### FISSEA this year will have a specific focus on phishing metrics.

#### Consequences of not meeting the standard will depend on the agency. Usually it means repeating training at a minimum.

#### The [FISSEA conference](https://www.nist.gov/news-events/events/2019/06/fissea-2019) is July 27-28, 2019 at NIST Gaithersburg, MD.

#### See the presentation and find more information [here](https://www.dhs.gov/sites/default/files/publications/FY%202019%20FISMA%20CIO%20Metrics_V1_Final.pdf).

## Report Roundup

### Noel Kyle, Education Section Chief, Cybersecurity Education and Awareness Branch, U.S. Department of Homeland Security provided the update. Noel presented on Critical Challenges Facing Our Nation's Cybersecurity Workforce.

#### Noel's group is looking at critical challenges for the nation's cybersecurity workforce while seeking a better understanding of workforce gaps and needs.

#### There is a wide range of resources including recent reports. The cybersecurity careers of the future report show the top five most in-demand work roles in cybersecurity. The project team looked at individual KSAs to hire against for these roles. They evaluated multiple resources and found that there is no commonality in describing job roles.

#### They analyzed over 50,000 cyber incident reports of all kinds. Then they aligned KSAs to the incident trends to define what's needed in the future. Job postings and trends were overlaid to the KSAs. They found a top ten cybersecurity jobs; five appear on the slide. The language in the NICE Framework was key.

#### The second report is about talent identification and assessment. It explores how cybersecurity talent is identified, highlights current and future assessment capabilities, and provides recommendations on candidate recruitment and talent evaluation.

#### The third report looks at paths and progressions to get into the cybersecurity field. It explores the current state of cybersecurity careers from the importance of early exposure, to methods of entry into the field, to career progression. The findings are on the [NICCS](https://niccs.us-cert.gov/workforce-development/cybersecurity-resources) website.

#### The goal is to see more use of the NICE Framework, map positions and training to the NICE Framework, join the discussion on career pathing and aptitude assessing, and for people to spread the word.

#### Many scholarships and free training are available for federal employees, veterans, and SLTT employees.

#### See the presentation and find more information [here](https://niccs.us-cert.gov/workforce-development/cybersecurity-resources).

# Subgroup Updates

## Apprenticeship –

### Marian Merritt, NICE Lead for Industry Engagement, provided the update.

#### During the April meeting there were 25 members in attendance with 5 new members.

#### This subgroup seeks increased participation in apprenticeships from employers. Suggestions on employers that can present are welcome.

#### Two presentations were provided. Michelle Wein, Senior Research Manager at the Workforce Intelligence Network (WIN) of Southeast Michigan spoke about the return on investment (ROI) on apprenticeships to demonstrate how apprenticeships make good financial sense. A ROI calculator was demonstrated.

#### A member from the UK provided an international perspective on apprenticeships. He spoke about [CREST](https://www.crest-approved.org/) and career paths for apprenticeship qualifications.

#### A new project team for the “Comparative Analysis of Learn and Earn Models” has kicked off. Toby Gouker, Western Governors University, will lead the project.

### The next Apprenticeship subgroup meeting is June 28, 2019 at 11:00 a.m., ET. Visit the Apprenticeship subgroup website [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Apprenticeship/SitePages/Home.aspx).

## Collegiate –

### Denise Kinsey, Co-chair, provided the update.

#### The Value of Higher Education project team met last week to discuss existing data and different perspectives on the value of higher education.

#### Member contributions to the analysis was discussed.

#### The project team seeks data on the value graduates add to employers, what is higher education doing right and what can be improved upon.

#### The next meeting for this project team is June 19th.

#### The Cybersecurity Career Pathways team is working on resources for varied pathways to cybersecurity careers. They meet the 4th Tuesday of each month at 3 ET. The next meeting is May 28th.

#### To join the project teams and the Collegiate subgroup, send an email to [NICE Support.](mailto:nicesupt@nist.gov)

### The next Collegiate subgroup meeting is June 18th at 2:00 p.m., ET. Visit the Collegiate subgroup website [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Collegiate/SitePages/Home.aspx).

## Competitions –

### Amelia Phillips, Co-chair, provided the update.

#### The subgroup met on May 21st with six new members.

#### Danielle Borelli, Operations Coordinator at the California Cybersecurity Institute, presented on California Cybersecurity Institute’s Competitions and Trainings.

##### An innovation challenge had 32 teams this year.

##### The regional mayors cup had over 1,200 students competing from CA.

#### They discussed how to get the military to work with competitions and how to get the word out on acquiring support for competitions.

#### Dan Manson continues developing [podcasts](https://www.youtube.com/cyberfed) on various topics in competitions. The latest podcast is an interview with is with Dr. Claire La Fleur on competition metrics. Suggestions on future topics or individuals to feature are welcome.

#### The Competition Outreach guide is in progress; as well as guides on how to build and run a competition and a competitor's guide.

### The next Competitions subgroup meeting is June 18th at 3:00 p.m., ET. Visit the Competitions subgroup site [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Competitions/SitePages/Home.aspx).

## K12 –

### Davina Pruitt-Mentle, NICE Lead for Academic Engagement, provided the update.

#### The subgroup continues to add additional members. Representation from industry and STEM initiatives have been added.

#### During the last meeting there were presentations on summer camp options including GenCyber camps for teachers.

#### Project planning for conferences and NCCAW continue.

#### This subgroup also discusses ideas for counselor and professional development resources.

### The next K12 subgroup meeting is June 12th at 3:30 p.m., ET. Visit the K12 subgroup website [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/K12/SitePages/Home.aspx).

## Training and Certifications –

### John McCumber, Co-chair, provided the update.

#### During the last meeting, a presentation from an IBM expert was provided on the use of [Watson](https://www.ibm.com/talent-management) and how it can be reused in the context of cybersecurity workforce.

#### IBM looked at multiple frameworks and determined the [NICE Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework) provides the greatest understanding of roles and KSAs and it defines the skills and proficiency levels. They were able to map their organization ontology to the NICE Workforce Framework. It allows evaluation for skills and proficiency levels.

#### The Cyber Range project continues to work on capturing the context of cyber ranges.

#### The illustrative mapping of certifications to NICE Framework work roles includes three sets of opinions (3CS, Department of Navy, and the HHS team). As the mapping grows, more people are getting involved.

### The next T&C subgroup meeting is June 5th. Visit the Training and Certifications website [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/TrainingCertifications/SitePages/Home.aspx).

## Workforce Management –

### Susie Cone, Co-chair, provided the update.

#### Seven new members have been added to the group.

#### There is a project team working on mapping guidebook guidelines to the NICE Framework.

#### There is not a common language for positions and job roles. There is also a gap where what employers expect in positions versus what they call for when hiring.

#### The team seeks to deliver information that is relevant to the present, as well as the future.

### The next Workforce Management subgroup meeting is June 20th at 1 pm ET. Visit the Workforce Management website [here](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/WorkforceManagement/SitePages/Home.aspx).

# Project Progress Reports

## National Cybersecurity Career Awareness Week (NCCAW)

### Davina Pruitt-Mentle, Lead for Academic Engagement, NICE, provided the update.

#### NCCAW will be held November 11 – 16, 2019.

#### The [call for commitments](https://www.nist.gov/news-events/news/2019/05/call-new-national-cybersecurity-career-awareness-week-commitments-now-open) is open. A message went out last week to promote awareness and involvement. There are many free ways to get involved. Please think about how to share individually and start preparing.

#### Commitments are actions taken by the community to promote cybersecurity careers and messaging for opportunities as to why people should go into this field.

#### The new portal is on the NICE website.

### Find out more [here](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week).

## NICE Annual Conference

### Laura Bate, Policy Analyst, Cybersecurity Initiative, New America, provided the update.

#### This year’s theme is “Reimagining the Future of the Cybersecurity Workforce: Adapting to a Changing Landscape.”

#### The conference features four tracks.

##### Partnering for a Stronger Cybersecurity Community

##### Connecting Theory and Practice

##### The Impacts of Future Technologies on the Cybersecurity Workforce

##### Expanding Skill Development through Lifelong Learning

#### The call for proposals closed with a record number of proposals. Over 200 submitted responses will be reviewed and responded to in early July.

#### Save the date for the preconference workshops on November 18th. Early-bird registration is open in early July.

#### Follow updates on NICE @NICEcybercon on Twitter.

#### Hotel space and the conference sold out last year. Hotel space can be reserved now. The venue will hold more people this year than last year.

### Find out more [here](https://niceconference.org/).

## NICE K12 Cybersecurity Education Conference

### Davina Pruitt-Mentle, Lead for Academic Engagement, NICE, provided the m

#### The call for proposals ends June 15th. Registration opens mid-July.

#### During the next planning session, the committee will be looking at preconference workshops and keynotes.

### Find out more [here](https://www.k12cybersecurityconference.org/).

## CAE Community

### Anastacia Webster, California State University, San Bernardino, provided the update.

#### CAE symposiums follow right after the NICE conference on November 21st and 22nd.

#### CAE will be at [CISSE](https://cisse.info/e/news-updates) in June with a booth.

### Find out more [here](https://www.caecommunity.org/).

## NICE Challenge Project

### James D. Ashley III, Lead Engineer/Project Manager, CSUSB, provided the update.

#### The web portal has a new feature release coming next month. The feature allows players to be promoted to an "overseer" role. This role has visibility into material, but ownership stays with the curator.

#### There are five new challenge coming this week. There will be 102 unique challenges following the new release.

### Find out more [here](https://nice-challenge.com/).

# Summary of Action Items

### The K12 Conference call for proposal deadline June 15th. Registration opens later in the summer.

### Meeting minutes will be sent to all working group members.

# Next Meeting Reminder - The next NICE Working Group meeting is scheduled for Wednesday, June 26, 2019.