**NICE Working Group**

**Meeting Minutes**

**Date: March 27, 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 second NICE Working Group meeting of 2019. 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, NICE Director, provided the program office update.

### Conference and proposal season are approaching.

#### FISSEA is scheduled for June 27-28. This conference focuses on those in the federal government who provide awareness and training. Industry and academic participants typically provide support and resources.

#### The call for presentations is open. April 9th is the submission deadline. The exhibitor showcase will soon be announced.

#### The conference is hosted at the NIST campus in Gaithersburg, MD.

#### Think about attending to network and learn.

#### Find out more [here](http://www.nist.gov/fissea).

### NICE is hosting a webinar on the subject of, “Women in Cybersecurity: Finding, Attracting and Cultivating Talent”.

#### The webinar is scheduled for April 17th. Find out more [here](https://www.nist.gov/news-events/events/2019/04/nice-webinar-women-cybersecurity-finding-attracting-and-cultivating).

#### Ideas for the monthly webinar series are welcome. Working group members may propose thought provoking topics and ideas. Feel free to submit ideas to the program office.

### National Cybersecurity Career Awareness Week ([NCCAW](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week)) will occur November 11-16. The event seeks to attract more people into cybersecurity careers.

#### The goal is to reach out to middle schools, high schools, community colleges, 4-year colleges, incumbent workers, those that consider reskilling, veterans, etc.

#### Career pathways are a very important point of emphasis. DHS has announced new resources for this cause.

# Standing Items

## Strategy Stories

### David Langdon, Senior Policy Advisor, Department of Commerce, presented on the “President’s National Council for the American Workforce.” This presentation aligns with the NICE Strategic Plan Goal 3: Guide Career Development and Workforce Planning.

### This administration has a strong focus on workforce policy and strategy.

### The executive order, signed July 2018, established the National Council for the American Worker.

### An interagency group with fourteen members completes the council.

### The group is developing a national workforce strategy that has multiple components.

#### Multiple pathways. The idea that a college education is not the only way to a middle-class job.

#### The value of employer-lead investments. Promote more employer-provided training and measure the outcomes. There is a need for greater data transparency to answer basic questions such as how skill needs are changing.

### There are a variety of initiatives such as apprenticeships, funding of career technical education, and a new set of principles for higher education.

### The executive order recognizes the need for outside guidance to set the strategy for the American Workforce Advisory Board.

### They put together a twenty-five-member advisory board that includes seven CEOs, governors, mayors, trade, industry and nonprofit leaders. Four working groups have been created to develop recommendations for a national campaign on pathways, data transparency, better measuring of employer provided training, and hiring practices.

### SHRM is a member of the advisory board. They are working to disseminate better hiring practices.

### The White House led an effort to gather commitments from companies for enhanced training. We hope to hear and share personal stories of those who are receiving this training.

### Cybersecurity came up in conversation periodically, especially when discussing cross-cutting and emerging sectors.

### When asked if there is a notion of balance for education, training, apprenticeships, etc., Dave said this is what we’re trying to achieve. There is not one approach that is implicit. They are interconnected.

### See the presentation attached and find out more [here](https://www.whitehouse.gov/presidential-actions/executive-order-establishing-presidents-national-council-american-worker/) and [here](https://www.commerce.gov/americanworker/american-workforce-policy-advisory-board).

## Metric Moment

### Davina Pruitt-Mentle, Lead for Academic Engagement, NICE, presented a “2018 National Cybersecurity Career Awareness Week (NCCAW) Report Summary”.

#### Last year during NCCAW, over 200 engagements were registered in the online activity portal.

#### There was representation from 42 states, plus DC and PR, and two international colleagues.

#### There were a variety of online activities such as videos and webinars.

#### Twitter, YouTube, and other social media outlets broadcasted activities.

#### A toolkit was developed to house resources.

#### Industry had their employees share stories about a career in cybersecurity. Many resources are archived and can be accessed.

#### NCCAW 2019 is scheduled for November 11-16.

#### The next planning meeting is scheduled for April 4th at 2:30 p.m., ET. For those interested, email [Davina](mailto:davina.pruitt-mentle@nist.gov).

#### When asked if there are under-represented groups, Davina said they hope to hear more from students in high school and college. Government participation, and more resources around career pathways are desired.

### See the attached presentation and find out more [here](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week).

# Subgroup Updates

## Apprenticeship

### Girish Seshagiri, co-chair, provided the update.

### One highlight during the last meeting was a presentation from Will Markow on the [CyberSeek](https://www.cyberseek.org/) heatmap joint initiative.

#### The heatmap is an interactive data visualization that shows the over-, and under- supply of cybersecurity workers.

#### The career pathway tool shows work roles available and skills associated to those roles. It maps out entry, mid, and advanced levels and maps to the [NICE Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework) core work roles.

### Subgroup members spoke about project ideas and priority.

### Based on a survey designed by the co-chairs, the top two projects to focus on are:

#### Return on Investment of apprenticeships and,

#### A study on apprenticeship barriers such as the difference between internships and apprenticeships.

### We hope to make the case that apprenticeships are doing a better job to prepare the workforce.

### The next meeting is April 26, 2019 at 11:00 a.m., ET. Visit the Apprenticeship website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/apprenticeship-sub-working-group).

## Collegiate

### Stephen Miller, co-chair, provided the update.

### The Cybersecurity Career Pathways project team, led by Rodney Petersen, met this week. A project charter and purpose have been developed. They hope to build a resource page and possibly interactive web tools.

### The Tools, Technologies and Skillsets team has gathered resources on topics like how to build a resume, security clearances, employable skills, and how to gain skills. A draft of this white paper should be available by April 15th.

### The Value of Higher Education project team has a project charter. The goal is to get this project off the ground next month.

### The next meeting is April 9, 2019 at 2:00 p.m., ET. Visit the Collegiate website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/collegiate-sub-working-group).

## Competitions

### Last week’s meeting featured a presentation on the National Collegiate Cyber Defense Competition (NCCDC). This weekend is the regional qualifier.

#### The competition tests one’s knowledge in a network and operations environment.

#### The subgroup had a good Q&A after the presentation. Competitions are labor intensive and require many man-hours to prepare and support. Sponsorship is one way to offset the costs. There can be different levels of benefits.

#### The conversation was captured, and the group is thinking about elevating the discussion to a white paper or input into the builder’s guide. The Competitions Builder Guide project team is looking for a new lead. Email [Laurin](mailto:Laurin.Buchanan@securedecisions.com) if interested.

### Developing competitions [podcasts](https://www.youtube.com/cyberfed) are ongoing.

### The subgroup also heard about [CyberStart](https://www.girlsgocyberstart.org/). This is a gamified, discovery-based learning system with CTF-type challenges. It is free to use and a great opportunity.

### A few upcoming competitions of note are:

#### the [Cyber FastTrack](https://www.cyber-fasttrack.org/) program, designed for college students. Registration is open until April 5th.

#### CyberPatriot XI National Finals Competition, April 8-10, 2019 at the Hyatt Regency in Baltimore, MD.

#### [TJCTF](https://tjctf.org/) (High School teams only). Sat., April 20, 2019, 20:00 UTC — Fri, April 26, 2019, 20:00 UTC.

### Additional competitions are posted in the chat.

### The next meeting is April 16, 2019 at 3:00 p.m., ET. New members are welcome. Visit the Competitions website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/competitions-sub-working-group).

## K12

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

### During the last meeting subgroup members spent time fine tuning projects.

### The Career Technical Education (CTE) Toolkit discussion seeks to compile two reports. One is being worked on with the CAE. The other is the environmental scan looking at similarities and differences in courses.

### They spoke about career pathways and asked members to send in examples.

### Potential smaller projects to be competed in a short duration are for school counselors, professional development for teachers and a glossary of terms that are cybersecurity related.

### The next meeting is April 10, 2019 at 3:30 p.m., ET. Visit the K12 website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/k12-sub-working-group).

## Training and Certifications

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

### This subgroup is in the process of putting together project teams.

### The Framework to certifications mapping matrix is available on the website.

### Volunteers are needed to finalize this document.

### We are tracking the efforts of the Cyber Range team.

### We may develop a survey to seek suggestions on next steps.

### The next meeting is April 3, 2019 at 2:00 p.m., ET. Visit the Training and Certifications website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/k12-sub-working-group).

## Workforce Management

### Maurice Uenuma, co-chair, provided the update.

### The subgroup selected two, possibly three projects including deliverables to undertake this year. They want to remain consistent with the charter to facilitate the mission which is creating a culture where the workforce is effectively engaging in mitigating cybersecurity risk. They also want to support the NICE Strategic Plan.

### The subgroup has focused on driving awareness of the [guidebook](https://www.nist.gov/itl/applied-cybersecurity/nice/workforce-management-guidebook).

### The selected projects include:

#### Mapping the guidelines in the guidebook to the [NICE Cybersecurity Workforce Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework). We wish to take the guidelines, organized by business function, and align with the work roles and KSAs.

#### The second project is developing metrics and measures. This project seeks to create quantifiable measures to measure an organizations maturity.

#### The project pending is an industry sector-specific guidebook such as medical, HR, etc. This project will need a critical mass of people to do this work. Let us know if you are interested. Project teams will form in the next month.

### The next meeting is April 18, 2019 at 1:00 p.m., ET. Visit the Workforce Management website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/workforce-management-sub-working-group).

# Project Progress Reports

## NICE Annual Conference

### Randy Pestana, Florida International University (FIU), provided the update.

#### Save the date for the 10th Annual NICE Conference and Expo. The conference will be held November 18-20 at the Sheraton Grand Phoenix in Phoenix, AZ. This is the 10-year anniversary of the conference!

#### The call for proposals is open. All working group members should have received the notification. May 19 is the deadline.

#### This year’s featured tracks are:

##### Partnering for a Stronger Cybersecurity Community

###### This track focuses on creating connections between industry, higher education, government, and others leading to better alignment between learning systems and employer skill needs, while creating new or evolved systems better adapted to the training and educational needs of cybersecurity work roles.

##### Connecting Theory and Practice

###### This track describes methods to teaching cybersecurity through hands-on experiences, including collaborative opportunities between employers and educators, competitions, apprenticeships, hackathons, and gamified learning, in turn reducing the gap between education and real-world experiences.

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

###### This track will examine how future technology--and interfacing with that technology--is likely to shape demands on cybersecurity work and workers.

##### Expanding Skill Development through Lifelong Learning

###### This track explores learning outside of conventional classroom environments and educational disciplines to make cybersecurity more accessible to all learners and creating mechanisms for learning at every stage in life including learners looking to cross disciplines, career changers, employers interested in upskilling their workforce, and many others.

#### Registration will open in July. Room blocks will open in the next few weeks. Feel free to [contact Randy](mailto:rpestana@fiu.edu).

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

## NICE K12 Cybersecurity Education Conference

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

### Save the date for the 2019 NICE K12 Cybersecurity Education Conference. The conference will be held December 9-10 at the Hyatt Regency Orange County in Garden Grove, CA.

### This is the 5th annual conference which will be highlighted. The next planning call is April 2nd at 3 p.m. For those interested, email [Davina](mailto:davina.pruitt-mentle@nist.gov).

### See the presentation attached and find out more [here](https://www.k12cybersecurityconference.org/).

## NICE Challenge Project

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

### Last weekend the team attended the Pacific Rim Collegiate Cyber Defense Competition (PRCCDC).

### They achieved a record level of deployments this month.

### The project has reached over 500 educators and 320 educational organizations have signed up.

### The website has been updated to take on a more modern look and refocus the content.

### The curator challenge strategy guide for every technical challenge has been released. The guide will help curators decode challenges.

### Webinars run the first Friday of every month.

### See the presentation attached and find out more [here](https://nice-challenge.com/).

# New Business

## Jessica Gulick, KATZCY and Bradley Wolfenden, Circadence Corporation, presented on “Wicked6 Cyber Games”

### Jessica is the Vice President of the Women's Society of Cyberjutsu. Brad is the Director of Cyber Academic Partnerships at Circadence.

### Wicked6 is a competition fundraiser supported by the Women's Society of Cyberjutsu. The competition is scheduled for August 8th, the last day of Black Hat. They are holding a competition with a goal to raise funds for girls and women’s hacker camps.

### The focus is on cyber games and cyber as a sport and spectator sport. We want to tell the story about the mission of the game, problems solving and the day to day challenges faced in cybersecurity.

### The Circadence platform will be used to tell stories during the competition. College teams will compete. Individuals will be able to contribute to compete in a special individual competition.

### The advisory board launches on April 15th. Skill needs and “what it takes” will be included in discussion.

### The competition will be structured similarly to other competitions. Each round will have various industry-specific content. They are looking to engage the audience and corporate sponsors.

### Reach out if you represent a team and wish to apply for the competition.

### The event will livestream. Experts will come in all day long to talk about skills, education programs, and more.

### If you wish to plan, volunteer or have questions, email [Jessica Gulick](mailto:gulickj@katzcy.com).

### See the presentation attached and find out more [here](https://drive.google.com/file/d/1aDOxYGFPwWAzZK_tK5aiz64NFYwxT1m1/view).

# Next Meeting Reminder. The next NICE Working Group meeting is scheduled for Wednesday, April 24th at 3:30 p.m. ET.