**NICE Working Group**

**Meeting Minutes**

**Date: October 24, 2018 Time: 3:30 PM EST**

**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.
* The NICEWG is not intended for advertising and promotional purposes and to keep this in mind when participating and using the chat feature. Danielle urged all participants to collaborate and share information while working on projects.

# NICE Program Office Updates

* Rodney Petersen, NICE Director, provided the program office update.
  1. The focus this month has been on outreach. October [is National Cybersecurity Awareness Month (NCSAM)](https://staysafeonline.org/ncsam/). Week 2 of NCSM activities focused on how to create much needed jobs and increasing cybersecurity career awareness.
  2. Rodney is looking forward to the [NICE Conference](https://www.niceconference.org/). There are some vacancies in the pre-conference seminars. Rodney expressed appreciation to everyone who has assisted in planning or contributing to making the conference happen.
  3. The [K12 Conference](https://www.k12cybersecurityconference.org/) is coming up in early December.
  4. NIST has the [Risk Management Conference](https://www.nist.gov/news-events/events/2018/11/nist-cybersecurity-risk-management-conference), November 7-9th in Baltimore. The Risk Management Conference and the NICE conference are happening close together.
  5. The [NIST Cybersecurity Framework](https://www.nist.gov/cyberframework) is a companion document to the [NICE Framework](https://www.nist.gov/itl/applied.../nice/.../nice-cybersecurity-workforce-framework). Relationships will require us to work closely together to align the Framework’s.
  6. The [CAE Symposium](https://www.caecommunity.org/content/events) follows the NICE Conference from November 8-9th in Miami.
  7. This week during NCSAM, the focus is on safeguarding the Nation’s critical infrastructure. Rodney moderated a panel at the Healthcare HIPAA conference in Washington, DC.
  8. While NICE thinks about the Framework and workforce needs, they also look at unique needs for critical infrastructure areas. What are the unique needs for those in certain professions? What type of awareness and training do they need? As a group, the unique education and workforce needs for certain professions is a topic to discuss in the next year.

# Standing Items

## **Report Roundup**

* Roy Swift, PhD, Executive Director, Workcred, presented the Manufacturing Extension Partnership (MEP) Report on manufacturing credentials.

1. Roy's work brings together credentials, competencies, careers, and customers, focusing in on the certification aspects while working on MEP research with NIST.
2. How are credentials looked at in the manufacturing world? The word "credential" is often used in an umbrella sense when describing qualifications. Workcred did a major study that received 945 responses. MEP is made up of very small to medium sized manufacturers.
   * + The survey findings indicate manufacturers do not appear to know what credentials are available, or how they might be relevant to a particular workplace.
     + Credentials are not routinely required in manufacturing environments. Hiring decisions tend to rely much more on experience.
     + Larger-sized facilities are more likely to prefer credentials over experience when hiring. Smaller facilities often are less reliant on credentials.
3. Manufacturers do not see credentials as the most relevant tool for them to identify new skilled personnel or incentives to improve the incumbent workforce.
4. Manufacturers could not quantify if credentials added value in terms of reduced cost or reduced training time.
5. Themes from the survey:
   * + Improve understanding about content and value of credentials,
     + Expand the use of quality standards for credentials,
     + Relationships between manufacturers, education/training providers and credentialing organizations could be strengthened,
     + Create credentials that focus on performance and address new roles, and;
     + Increase the number of apprenticeships and expand apprenticeships to more occupations.
6. Are these survey themes unique to manufacturing? Anecdotally, the themes probably go across the board. The study should be undertaken across other sectors.
7. See presentation attached and find out more [here](https://www.nist.gov/news-events/news/2018/07/manufacturing-credentials-report).

## **Strategy Stories**

* David Forscey, National Governor's Association (NGA), presented the NGA Policy Academy on Implementing State Cybersecurity. This presentation aligns with [NICE Strategic Plan](https://www.nist.gov/itl/applied-cybersecurity/nice/about/strategic-plan) Goal #3, Guide Career Development and Workforce Planning.

1. [NGA](https://www.nga.org/) is the national non-partisan organization of the nation's governors. David works for the non-profit portion of the NGA, in homeland security and public safety.
2. There are 5 sub-divisions of the non-profit organization. NGA acts as a non-profit and non-partisan cybersecurity advisor to governors.
3. They offer technical assistance to implement and operationalize cybersecurity planning.
   * + The Policy Academy is working with four states: WI, IN, WV, and NC. Each state has had its first workshop. Follow up workshops are happening early next year. Each state has its own goals:
       - Wisconsin is looking to boost cybersecurity capability at the local level.
       - West Virginia wants to centralize IT security management. Their goal is to effectively communicate what's needed to the state legislature, so that appropriate legislation will be passed.
       - North Carolina is working on cyber-response activities and re-working its cybersecurity statute.
       - Indiana is working on an overarching cybersecurity strategy for the entire state. The goal is to implement the NICE Framework state-wide. Indiana's cybersecurity strategy also has a large workforce component.
4. A meeting is scheduled for next week in Detroit with all four states.
5. Challenges faced by each are state-centric: challenges in recruiting and pay, workers who want to work in cybersecurity often end up working for the federal government.
6. There is no central repository of information for states.
7. Rodney noted the [NICE webinar](https://www.nist.gov/itl/applied-cybersecurity/nice/events/webinars) scheduled for February 2019 will be on the manufacturing sector.
8. See presentation attached.

## **Metric Moment**

* Mandy Galante, CyberStart Program Manager, SANS Institute, presented on CyberStart and Fast Track.

1. The goal of [CyberStart](https://www.sans.org/cyberstart) is to make an impact on the cybersecurity workforce shortage. They developed a cyber aptitude assessment tool.
   * + The tool measures psychometric and skill scores. It can predict who is ideal for a cybersecurity job, who is not, and who has the potential to be great at cybersecurity. It can also identify those who have aptitude but not much experience.
     + The UK Cyber academy wanted to find candidates were very likely to succeed in cybersecurity. A cyber aptitude assessment was given to over 25,000 college students and adults. Of that number, 200 were selected for interviews. Thirty-one finalists participated in the academy.
     + Historically, for over a hundred thousand GIAC certification attempts, these UK Cyber academy grads remain ranked in the top 10 percent.
2. How to inspire students to get into cybersecurity? What does it take to get students to try something they think they won't like? Make it a game.
3. The UK developed a cyber discovery program that presents a range of tools in a country-wide program for mid-teens. After a year, what the participants achieved, surpassed projected results by a wide margin.
   * + It became the Cyberskills FastTrack initiative in the U.S. next. A group of seven governors agreed to allow a trial in their states. VA state results were able to identify aptitude and an increase in interest.
     + For all of this, there was still a lack of girls participating.
     + The U.S. [Girls Go CyberStart](https://www.sans.org/CyberStartUS/additional-resources) competition was held across sixteen states in 19 days, with 6,650 girls participating.
     + There was a big increase in interest in cybersecurity among the students after participating.
     + What's next: The Cyberstart game is now being used in computer science classes. Maryland, New Jersey, and Hawaii have pilots.
     + CyberStart Essentials is now a pilot program offered in Maryland community colleges. The high level of interest has continued in the classroom setting.
4. See presentation attached and find out more [here](https://www.sans.org/cyberstart).

# Subgroup Updates

## Apprenticeship

* Girish Seshagiri, Executive Vice President and CTO at ISHPI Information Technologies, provided the update.

1. Apprenticeship is the newest subgroup. The [subgroup charter](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Apprenticeship/SitePages/Home.aspx) is now on SharePoint.
2. The subgroup mission is to expand cybersecurity apprenticeships as rapidly as possible. The group is exploring many means, including apprenticeships, to fill jobs.
3. The subgroup has supported the president's task force report on apprenticeship. They started the Landscape Survey project and produced a spreadsheet with nearly 40 entries with detailed apprenticeship information. The [Apprenticeship Landscape Survey Tracker](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Apprenticeship/SitePages/Home.aspx?contents=1) spreadsheet is in SharePoint.
4. There is overlap in apprenticeships with other subgroups. We look forward to continuing the work.
5. We will also want to establish access rules as far as who can add information and make changes, but the group is welcome to look and review information.
6. The full Apprenticeship subgroup meets the fourth Friday every month at 11 a.m., Eastern Time.
7. Visit the Apprenticeship website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/apprenticeship-sub-working-group).

## Collegiate – there were no updates from the Collegiate subgroup.

## Competitions

* Laurin Buchanan, Secure Decisions, presented the update.

1. The last Competitions Subgroup meeting included a presentation from Noel Kyle from DHS.
2. The subgroup discussed NICE Framework work role capability indicators.
3. New podcast interviews are available on the [CyberFed YouTube channel](https://www.youtube.com/channel/UCqru5uPONxySBARWAmONQcg).
4. During the next subgroup meeting, two documents will be discussed (Competency mappings and capability indicators).
5. Two upcoming competitions include:
   * + The DOE [Cyberforce Competition](https://cyberforcecompetition.com/) on November 30th – December 1st. Volunteers and participants are needed.
     + Nationals of the [College Penetration Testing Competition](http://www.nationalcptc.org/), November 2-4th in Rochester, NY.
6. Members of the subgroup, including co-chair Laurin Buchanan, will be presenting “Play Your Way to Success: Building Tomorrow's Workforce” on November 6th at 1:45, at the NICE conference next month.
7. The subgroup meets the fourth Thursday each month at 3:30 p.m., Eastern Time. However, the next meeting is December 13th.
8. Visit the Competitions website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/competitions-sub-working-group).

## K12

* David Hernandez, American Express Global Travel, provided the update.

1. The subgroup now has 235 members.
2. The last meeting included a presentation on [Hacker Highschool](http://www.hackerhighschool.org/). There was also a presenter who spoke about the Cyber San Bernardino State of Education video.
3. There is a project team starting on a CTE Start-up Toolkit to help schools build up their CTE programs. Please contact [Davina](mailto:davina.pruitt-mentle@nist.gov) or [Patrick](mailto:schultzp@baisd.net) if you are interested in assisting.
4. Work on an education and training information clearinghouse is starting. Contact [Davina](mailto:davina.pruitt-mentle@nist.gov) if interested.
5. The next meeting is November 14th at 3:30 p.m., Eastern.
6. Visit the K12 website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/k12-sub-working-group).

## Training and Certifications

* Linda Montgomery, Cyber World Institute, provided the update.

1. The cybersecurity certification and NICE Framework mapping matrix is open for public comment. More information and the matrix can be found [here](https://www.nist.gov/itl/applied-cybersecurity/nice/cybersecurity-certification-and-nice-framework-mapping-matrix).
2. The matrix is the culmination of a year and a half of effort.
3. Responses to the survey on the mapping matrix tool are still welcome.
4. Most respondents were from the private sector. The majority of them found the document to be useful.
5. Making the matrix more interactive will increase usability. A range of uses for the matrix was cited.
6. Information gathered will be useful for the next iteration.
7. The next Training and Certifications meeting is December 5th.
8. Visit the Training and Certifications website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/training-and-certifications-sub-working-group).

## Workforce Management

* Maurice Uenuma, Tripwire, provided the update.

1. The guidebook, “Cybersecurity is Everyone’s Job”, has been completed and published as of October 15th.
2. It provides cybersecurity guidelines by business functional areas and is intended as a resource to reduce cyber risk through active participation and active roles.
3. Everyone can assist with publicizing and distributing the guidebook. Please share within your own contacts, personal and professional. Download the guidebook [here](https://www.nist.gov/itl/applied-cybersecurity/nice/workforce-management-guidebook).
4. We will be looking at follow-on projects including sector-specific versions of the guidebook.
5. The next subgroup meeting is November 15th.
6. 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, provided the update.

1. Registration has closed, and the conference has sold out. There is a wait list.
2. There are four pre-conference workshops on Monday November 5th. Those registered for the conference can register for the workshops [here](https://niceconference.org/registration).
3. On Tuesday, November 6th, there is a working group gathering after lunch for conference visitors and working group members to interact with each of the subgroups. The first day of the conference now includes an overview of the working group for all attendees.
4. Find out more [here](https://niceconference.org/).

## **National Cybersecurity Career Awareness Week (NCCAW)**

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

1. NCCAW is scheduled for November 12-17, 2018. Register events for the week so they can be tracked [here](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week).
2. There is also a [toolkit](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week/toolkit), which has new material. There are many ways to participate.
3. Partners have also provided resources:
   * + For youth, there are hands-on activities to use and download, including [ComicBee](https://comic-bee.com/),
     + [The National Institute for Women in Trades, Technology and Science](https://www.iwitts.org/) (IWITTS) is providing a webinar on recruiting and retaining women,
     + Pocketblock, cryptology activity for kids,
     + [Start-engineering](http://start-engineering.com/) is providing a video snippet and booklet of activities,
     + [Nepris](https://www.nepris.com/) is doing a variety of professionals to classroom activities,
     + [Circadence](https://www.circadence.com/) is running 3-4 online games for free that week,
     + [Hats and Ladders](https://www.hatsandladders.com/) career app will have open cybersecurity materials,
     + Northorp [CyberPatriot](https://www.uscyberpatriot.org/) will have interactive games, and [Infosec](http://www.infosecinstitute.com/‎) institute will have a cyber pathways video and lesson plans for K12.
4. Registration for webinars on Nov 3-4 and Nov 14th will be forthcoming. One reminder is being broadcast today. Others to follow.
5. On November 13th, the National Institute for Women in Trades, Technology and Science, will hold a webinar on “Recruiting Women to Cybersecurity: From Intention to Action.” Register [here](http://womentech.iwitts.org/cybersecurity-webinar).
6. On November 14th, NICE is hosting a webinar titled “Upskilling and Reskilling the Workforce for Cybersecurity Roles.” Register [here](https://www.nist.gov/news-events/events/2018/11/nice-webinar-upskilling-and-reskilling-workforce-cybersecurity-roles).
7. See attached presentation and find out more [here](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week).

## **NICE K12 Cybersecurity Education Conference**

* Felicia Rateliff, Program Manager, iKeepSafe provided the update.

1. We are now in the final month of preparations. There are pre-conference workshops available on Saturday, December 1st. Sunday workshops have sold out.
2. Several local schools are participating in Cyberday4girls.
3. The conference has a very full program this year, with four keynote speakers, an interactive activity for cybersecurity intern students in San Antonio, and much more.
4. There will also be an opening social, lightening talks, poster sessions and other activities.
5. Exhibitor table spots are still available.
6. Everyone can help promote the conference in social media, etc.
7. The Grand Hyatt is almost full. Two additional hotels still offer the government rate. Attendees must register by November 9th to get the government rate. Contact [Felicia](mailto:felicia@ikeepsafe.org) with questions.
8. Find out more [here](https://www.k12cybersecurityconference.org/).

## **CAE Community**

* Anastacia Webster, California State University, San Bernardino provided an update on the CAE Community.
  1. The second CAE Virtual Career Fair was held with over a thousand attendees.
  2. Approximately 23 employers and CAE institutions participated.
  3. The CAE in Cyber Symposium is November 8-9th following the NICE Conference in Miami. [Registration](https://www.caecommunity.org/2018-cae-symposium-registration) closes this October 26th.
  4. Find out more [here](https://www.caecommunity.org/).

## **NICE Challenge Project**

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

1. The project team is preparing for the upcoming NICE and CAE Symposium conferences.
2. The NICE Challenge Project will be represented in the exhibit hall and they are giving a talk on growing the cybersecurity workforce.
3. Marketing materials are being updated in preparation for the conferences.
4. During the morning of the CAE Symposium, there will be an update on project progress.
5. Two new challenges in the protect and defend category are being released this week.
6. Updates to the web portal are coming soon.
7. Visit the web portal [here](https://nice-challenge.com/).

# New Business

* Clarence Williams, NICE Government Liaison, spoke about establishing a clearinghouse of information.

1. During the summer, NICE program office members met to review the report to the President ([Presidential Executive Order](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/executive-order-13800) on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure).
2. One recommendation of high interest is “Recommendation 3.5: The federal government should establish a clearinghouse of information on cybersecurity workforce development education, training, and development programs and initiatives.”
3. NICE program office members are convening SMEs that will help provide insight, thoughts, and recommendations on the need, purpose, scope, audience/s, content, and format for establishing a national database. The meeting invitation was sent to all working group members through the listserv.
4. The first meeting is scheduled for **Thursday, November 1st from 11:30am – 1pm**. If anyone wishes to be part of the conversation, contact [Clarence](mailto:clarence.williams@nist.gov) and [Davina](mailto:davina.pruitt-mentle@nist.gov) by **COB October 29th**.
5. Initial expectations are to meet in Adobe Connect 2-3 times. Clarence and Davina will provide a high-level overview on previous input from various subgroups. A topic of this discussion will be how to coordinate all efforts.
6. If there are additional questions that need to be answered let [Clarence](mailto:clarence.williams@nist.gov) or [Davina](mailto:davina.pruitt-mentle@nist.gov) know.

# Summary of Action Items

* Slides and minutes will be provided to everyone following the meeting.
* Public comment on the illustrated mapping is due by December 6th.

# Next Meeting Reminder

* There is no working group meeting in November.
* The next working group meeting is scheduled for December 6th.
* The working group will resume its normal meeting schedule in January 2019.