**NICE Working Group**

**Meeting Minutes**

**Date: 3/28/2018 Time: 3:30 PM EST**

**SharePoint Page:** <https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG>

**NICE Website:** https://www.nist.gov/itl/applied-cybersecurity/nice

# Introduction and Ground Rules

# Danielle Santos, NICE Program Manager, welcomed members to the meeting. The NICE Working Group 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 noted that participation in the NICE Working Group (NICEWG) is not intended for advertising and promotional purposes and to keep this in mind when participating and using the chat feature.

# NICE Program Office Updates

* Rodney Petersen, Director of NICE, spoke about the importance of engagement and how the staff of NICE feel very strongly about it. NICE program office staff titles include the word “engagement” highlighting the importance. Engagement is a very important principle in striving to influence future direction.
* Environmental scans in the areas of cybersecurity education, training and workforce development are also a high priority. We want to remain informed and engaged.
* Engaging the public through outreach, meetings, webinars, and conferences along with listening and learning, networking and off-line discussions are essential as well as partnerships and collaborations. New programs and initiatives are a great way to learn about innovations and to make people aware.
* Outreach through conference and event attendance are vital. Below are some upcoming events the program office will attend.
  + Women in Federal IT and Cyber - March 29, 2018
  + U.S. STEM Solutions Conference – April 4-6, 2018
  + SEC Academic Conference – April 8-10, 2018
  + RSA Conference – April 16-20
  + Software and Supply Chain Assurance Forum meetings – May 1-2, 2018. The focus is on training and education as it relates to secure software.
  + ISC2 Secure Summit DC – May 7-8, 2018
* Members should feel free to notify others of pertinent events through the chat log and the NICE program office.

# Opening Remarks

## Academic Co-Chair, Kathi Hiyane-Brown, President of Whatcom Community College, spoke about the upcoming CAE Executive Leadership Forum happening April 19-20, 2018 at the Bellevue Hyatt Hotel in Bellevue, Washington. Together with NSA and DHS, the forum will allow attendees to network with others who seek strategies to address the issues in cybersecurity education. This forum is important to keep people informed on the importance of bringing together leadership, and to talk about challenges such as educating and attracting the attention of new leadership.

## We cannot underestimate the effort needed to keep cybersecurity education at the forefront and to not be complacent. It is important to develop partnerships and attract the attention of leaders and to pay attention to the best practices. The Governor of Washington State will be on campus later this month and President Kathi hopes to draw his attention.

## Meetings such as the NICE working group, are appreciated and important to stay informed.

# Standing Items

* **Report Roundup**

## Nicole Smith, presented the Georgetown University report, “Women Can't Win”.

1. Most people know about the wage gap between men and women. A recent set of numbers tell us women make about $0.81/dollar compared to men. This is not an “apples to apples” number. There is no regard for education level, tenure, occupational choice, chosen industry, and more. These are important factors that determine wages.
2. This report reflects what is observed in wages. Even if women were to complete the same degree, same major, same job, the gap is about $0.92/dollar.
3. Some would ask why be concerned? 8 cents on the dollar, accumulated over a lifetime, compounds to nearly a million dollars. Additionally, the gap widens and gets larger over time as we mature.
4. The infographic highlights some of the concerns.
5. There are no real differences in capabilities when it comes to pursuing academic education. When looking at standardized scores and testing, boys and girls score equivalently.
6. There is social impact and conditioning that result in decision making when selecting majors and occupations. As an example, 17% of women choose engineering. What is preventing women from pursuing this degree at an equal rate? Within this field, women choose the lowest paying specialty areas such as environmental engineering.
7. Teaching has not changed and is the preferred occupation for women.
8. Women make up almost 90% of the field in nursing; however male nurses make higher salaries (10%). Males tend to go after higher degrees. Even in subdivisions, women make decisions that pay them less.
9. When thinking about discrimination, there is something in our social conditioning stating that women should pursue the road less traveled. There is a need to figure out how to break down those barriers.
10. Often, when talking about salaries, life is about satisfaction which is true, but of the 1.3 trillion-dollar debt, 60% is owned by women. This impacts quality of life and long-term overall wellness.
11. See the attached presentation and find the report [here](https://cew.georgetown.edu/cew-reports/genderwagegap/).

* **Strategy Stories**   
  Marian Merritt, Lead for Industry Engagement, NICE, and Girish Seshagiri, Executive Vice President and CTO at ISHPI Information Technologies, presented on the newly formed NICE Apprenticeship Subgroup. This effort aligns with the NICE Strategic Plan Objective 1.4: Experiment with the use of apprenticeships and cooperative education programs to provide an immediate workforce that can earn a salary while they learn the necessary skills.

1. The NICE Apprenticeship Subgroup is a newly formed working group setup to assist in meeting the goal to rapidly move more people into cybersecurity. On the subject of apprenticeships, NICE has presented [webinars](https://www.nist.gov/news-events/events/2016/11/nice-webinar-building-your-cybersecurity-team-apprenticeships), contributed to the [Department of Commerce blog](https://www.commerce.gov/news/blog/2018/01/cybersecurity-apprenticeships-enhance-cybersecurity-infrastructure). and a [one pager](https://www.nist.gov/sites/default/files/documents/2018/01/09/nice_apprenticeship_one_pager_oct_31_2017.pdf). NICE, coupled with the work of the current administration, wants to continue this work and see momentum grow.
2. This new subgroup is open to anyone interested in learning more about apprenticeships and how to create them. NICE would like to get a variety of people who are familiar or have opportunities in apprenticeships.
3. There are two new co-leaders for this subgroup. Girish Seshagiri, Executive Vice President and CTO at ISHPI Information Technologies, and Jennifer Carlson, Executive Director of Washington Technology Industry Association (WTIA) Workforce Institute and Apprenti. The group will meet the fourth Friday of every month at 11:00 a.m., Eastern Time. An email with details on the subgroup will be sent to all working group members tomorrow. Please share the information with others in your network.
4. Apprenticeships require a structured learning environment with mentors. Partnerships are important to making apprenticeships a success.
5. Girish expressed his enthusiasm that this is becoming a national conversation on how to help the cybersecurity workforce shortage. Girish believes that nothing else works and is focused on getting academia and industry working together. Girish launched a program in IL where community colleges partnered with Carnegie Mellon to create the first associate degree in information assurance with a focus on secure software development. This is an exciting time and Girish hopes working group members and others will consider joining and helping grow and create a workforce.
6. Those interested in joining the subgroup can send an email to [nicewg.app@nist.gov](mailto:nicewg.app@nist.gov).

* **Metric Moment**   
  Joshua Moses, Chief, Cybersecurity, Executive Office of the President of the United States, presented the “Presidential Management Agenda”.

1. Joshua oversees policy direction and oversite of the budget for federal cybersecurity. Last week, the Presidents Management Agenda was released outlining work to conduct across the government over the next three years. The agenda focuses on three core pillars.
   * IT modernization – 50 discreet actions rolled into cross-agency priority goals to modernize the IT infrastructure.
   * Data accountability and transparency – how to better deliver services to the tax payers.
   * There is interest in IT and cybersecurity. The NICE Cybersecurity Workforce Framework is being put forward across the federal government. It is an opportunity to provide basic understanding and create better delivery to taxpayers. There is a statutory mandate to improve performance on taxpayer dollars.
   * Find out more [here](https://www.performance.gov/index.html).

# Subgroup Updates

* **K-12**

### Virginia Lehmkuhl-Dakhwe, San Jose State University, provided the K-12 update.

1. The K-12 subgroup met on March 14th. Davina Pruitt-Mentle presented data collected from the NICE K12 conference. A lot of positive outcomes were heard. The data will be used to build out future conference models.
2. Members reviewed plans for this year’s National Cybersecurity Career Awareness Week (NCCAW) and the K12 conference. Other conference submission deadlines were reviewed.
3. The K12 report, a culmination of projects and strategic plan were discussed. To provide a nice visual, the team spoke about developing an infographic that compiles accomplishments.
4. A series of one pagers for CTE and cross mapping education standards, creating cybersecurity standards, and how to make them available to teachers, were reviewed as well as future initiatives.
5. The next meeting is scheduled for April 11th. New members are always welcome.

* **Collegiate**

### Stephen Miller, Eastern New Mexico University, provided the Collegiate update.

1. CyberWatchWest sponsors industry nights for community colleges. Central New Mexico Community College and Eastern New Mexico University have come together to form a certified apprenticeship program. The goal is to make industry partners aware of how the program works and what it is about. With a backlog of 150 students, there is a need for new partners. A Department of Labor (DoL) grant can assist.
2. The academic pathways project team are working around national curriculum and evidence gathering.
3. The Tools, Technologies, and Skillsets team is seeking sponsorship to help fund student fees required to access the National Cybersecurity Student Association (NCSA) portal.
4. There are three volunteers helping to develop a white paper. More volunteers are needed to perform research. The hope is to have a draft at end of May.

* **Competitions**

Laurin Buchanan, co-chair, provided the Competitions update.

1. Efforts to create and send recognition letters to competition winners is underway.
2. [CyberPatriot](https://twitter.com/CyberPatriot) is now posting on Twitter, each of the 28 teams (one per day), leading up to the competition.
3. Members of the subgroup are creating podcasts, the first published on CyberCompEx. A link is available on the NICE Competitions Subgroup [website page](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/competitions-sub-working-group).
4. Project teams are developing instructions on how to build and run a competition, and a guide for competitors. A draft is available on how to build and run a competition.
5. For the Competitions [one pager](https://www.nist.gov/sites/default/files/documents/2017/01/30/cybersecurity_competitions_1.pdf), members are reviewing to identify the next generation of this document. We want to reach out to all stakeholders.
6. Allen Stubblefield, Troy High School, presented on "Preparing the Future Cyber Work Force". Allen is a high school cyber defense and computer science teacher. This effort is also the subject of the first competitions podcast.
7. The next subgroup meeting is April 26th. New members are welcome!

* **Training and Certifications**

### Linda Montgomery, co-chair, provided the Training and Certifications update.

1. Linda is pleased to announce the newly formed Cyber Range project team. Dr. Joe Adams, Merit, will be leading this team on behalf of the initiative. To start, team members will look at the previously created one pager, a taxonomy for cyber ranges, and identifying who, what and how cyber ranges can be utilized. This project team meets the 2nd Tuesday every month at 4 p.m., EST. We hope to hear from NICE working group members who have cyber range expertise.
2. The Skills Based Training project team will continue to look at methodologies established in 2017 on an as-needed basis. The team will drill down and identify three major components which are tied to the NICE Strategic Plan. This team is seeking a new project lead. Anyone interested can reach out to Linda Montgomery.
3. The Framework to Certification project team is using the methodologies and standards developed by the Skills Based Training project team. The mapping matrix is out for an internal review and will be provided to a larger audience for more input. The team has mapped works roles to specialty areas. Later, proficiency levels will be brought in.
4. The Supply and Demand Training Gap project team is looking at how to build a template for communities to reach a market level such as that based on the work happening in San Diego.

* **Workforce Management**

### Susie Cone, co-chair, provided the Workforce Management update.

1. The NICE program office welcomed Susie Cone as the new co-chair.
2. Susie thanked all who provided feedback to the subgroups guidebook. Next steps are to integrate the feedback and then release for final comments.
3. Members will develop a communications plan and hope to have it ready for RSA. During RSA, the guidebook will be introduced and members will perform outreach. Lori Gordon, subgroup member, prepared a [list of organizations](https://nistgov.sharepoint.com/:w:/r/sites/NICEProgram/NICEWG/WorkforceManagement/_layouts/15/WopiFrame.aspx?sourcedoc=%7B97C0AA0B-A70D-4900-AA44-7AF8E89BB812%7D&file=Associations%20for%20Cyber-Secure%20Workforce%20.docx&action=default) that members can proactively reach out to, and seek their input, from a content standpoint, but also as potential partners for broader distribution. Please look at associates and invite feedback. If anyone can be a liaison please let us know.
4. The next Workforce Management meeting is April 19th.
5. See attached presentation more information.

# Project Progress Reports

* **CAE Community**

Anastacia Webster, California State University, San Bernardino, provided an update.

1. New initiatives include increasing the presence of CAE at conferences. CAE was represented at FISSEA, and in the future a will be at National Cyber Summit in June and at NICE in November.
2. A joint newsletter with the CAE program office will be released in the next couple of days.
3. The CAE virtual career fair is scheduled for October 5th, 2018. Organizations will have the ability to meet the talent the CAE community is producing. Vendors are welcome.
4. Faculty postings are updated almost daily from CAE institutions.
5. Find out more [here](https://www.caecommunity.org/).

* **NICE K-12 Cybersecurity Education Conference**

Davina Pruitt-Mentle, NICE Academic liaison, provided an update.

### URL

1. The conference is scheduled for December 3-4, 2018 at the Grand Hyatt Hotel in San Antonio, TX.
2. The committee has recently evaluated data from the previous conference and are now moving forward with a program committee meeting in April.
3. To be a part of the conference planning committee let [Davina](mailto:davina.pruitt-mentle@nist.gov) know or [Amber](mailto:amber@ikeepsafe.org) from iKeepSafe.
4. Find out more [here](https://www.k12cybersecurityconference.org/).

* **NICE Challenge Project**

James D. Ashley III, Lead Engineer | Project Manager, provided an update.

1. The team just returned from an annual high school event, running students through some of the challenges.
2. Updates to the project include user interface updates, post-challenge analytics, and increased scalability. There has been a noticeable uptick in daily deployment reservations. They are deploying up to 1,600 challenges per month.
3. The project has recently reached nearly 3,000 curators using NICE challenges and well over 200 signed institutions.
4. Future new content releases are planned for the protect and defend challenges.
5. Find out more [here](https://nice-challenge.com/).

# New Business

## Ambareen Siraj, WiCyS Founder and Chair, presented on “Women in Cybersecurity”.

1. The Women in Cybersecurity Conference reached a successful completion in Chicago last weekend.
2. The conference started from a NSF grant and is a community of sisters in cyber.
3. Conference attendance increases annually since the first one in 2013. This year there were 1,200 persons registered representing 365 organizations.
4. Next year’s conference will be held at Carnegie Mellon in March 2019.
5. This organization works to ensure students make up half of the attendees. There is a challenge in getting more women educators to the conference since there are not many female cybersecurity faculty.
6. WiCyS is now able to establish itself as a non-profit organization. The goal is to support recruitment and retention for women in cybersecurity. The conference is a major activity. Other activities include establishing local chapters. Students can promote recruitment, retention and advancement of women students in cybersecurity.
7. Through affiliates such as corporate groups, we will try to fund other student organizations. Affiliates do not have to be government or academic, and can be local community professionals interested in cybersecurity.
8. WiCyS is looking for academic and industry partners to support its mission. The goal is to collectively work together with other similar groups.
9. WiCyS is looking for an Executive Director. This person will help with the operations of the organization. Anyone interested may contact Ambareen at [ASiraj@tntech.edu](mailto:ASiraj@tntech.edu).
10. When asked about the difference between a student chapter versus an affiliate, Ambareen noted that student chapters are totally led by and for students. A few passionate students are needed to provide guidance and activities. They will enjoy some benefits such as conference attendance. There are now about 20 applications submitted within two days. Affiliates are led by professionals. They can have student members but are managed by professionals.
11. What is meant by sustaining partners? Organizations who provide funding or in-kind support annually. Support will go to support of the WiCyS organizations.
12. See attached presentations and find out more [here](https://www.wicys.net/).

# Next Meeting Reminder. The next NICE Working Group meeting is scheduled for April 25, 2018.