**NICE Working Group**

**Meeting Minutes**

**Date: August 24, 2016 Time: 3:30 PM EST**

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

1. **Roll Call and Ground Rules**

* Danielle Santos, NICE Program Manager, welcomed members to the meeting and stated that the Adobe Connect chat box feature should be utilized to provide feedback and ask questions.
* Danielle also 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.

1. **NICE Program Office Updates**

* Rodney Petersen, NICE Program Director, let members know there is a lot of activity at the NICE program office. Rodney just returned from the Cyber Texas event. San Antonio is leading the way in cybersecurity steering academic, business, and government to develop, promote, and enhance cybersecurity programs. San Antonio is working in schools, with higher education, the military, etc., and are active in competitions.
* The NICE Program Office strives to engage with the community. This is done through our NICEWG monthly calls and through the subgroups. We listen, learn, and share information during subgroup meetings and through the co-chairs. Central to our public/private partnership is the annual conference where we convene face to face. It is the program committee who reviews the submitted proposals. This is how we ensure the conference is what the community needs as well as emphasizing engagement with community.
* There is a federal government interagency coordinating council working together on recommendations and objectives on how the government approaches cybersecurity.
* The NICE Program Office is now fully staffed
  + Rodney Petersen, Director
  + Bill Newhouse, Deputy Director. Also the lead for the NICE workforce framework and is assigned part time at the National Cybersecurity Center of Excellence (NCCoE) bringing us connections to address near term challenges
  + Danielle Santos, Program Manager
  + Davina Pruitt-Mentle, Academic and K-12 liaison is an expert in cyber education for K-12
  + Clarence Williams, Lead government engagement liaison including federal, state, local and international
  + Marian Merritt, Lead industry engagement liaison engaging industry with employers in the private and public sectors
  + Laura Hatzes and Evie Petrella, contract support
* Finally, as part of the U.S. DOC and NIST, a number of presidential administrative initiatives such as RAMPS, CNAP, and the Federal Cybersecurity Workforce Strategy are in transition. The presidential election will have impact due to its transition. The NICE program staff will remain the same. Continuity is important. Updates will be provided during the upcoming monthly calls. Look for key programs and initiatives to continue regardless of who wins election. Cybersecurity will not go away.
* See attached presentation.

1. **Opening Remarks**

* President Kathi Hiyane-Brown, NICEWG Academic Co-Chair, welcomed new members to the meeting and encouraged questions and information sharing with others. It is important to keep everyone informed of your work that is being done.
* Andre Thornton, NICEWG Industry Co-Chair, spoke on information and data points extracted from a just completed pilot program for millennials.
* The U.S. economy and workforce is something we are all paying attention to. Baby boomers are reaching retirement and the workforce will be transitioning. Studies show 55% of millennials are not engaged at work which is a cause for concern. This is the largest group representing the workforce and their engagement is down. What does that mean for the economy? Productivity declined for three consecutive quarters and points to a problem.
* For the summer pilot program we wanted to understand what we’re hearing and determine if the findings on the millennials are accurate. Below are some of the results:
  + Millennials have an interest in career development and purpose and are not as interested in profit.
  + They look for meaningful work such as something impacting the world.
  + Millennials want work life balance and flexibility. They want to work but also weave different activities into their schedules.
  + There is an interest in technology. Millennials want the latest.
  + Millennials are very interested in being coached rather than managed. They want a coach vs a boss.
  + Finally, they want to focus on developing strengths as opposed to weaknesses.
* Not all millennials are interested in all six of the results listed above. However, all agree they seek a coach and not a boss. This item was reflected by all responders.
* We have a tremendous opportunity no matter what field you work in. Coach and share what we know with this new generation and help the transition from a rich experienced workforce to a less experienced workforce.

1. **Standing Items**
   1. **Fun Facts** **– creating a culture of evidence**

* Davina Pruitt-Mentle presented the Association for Career and Technical Education (ACTE) infographic. This infographic provides a good representation of key items.
* The infographic represents the role of the program. The background focus is on community college, technical college, high school, career centers, four year universities, K-12, as well as the pipeline. Career and technical education has a long history which has changed over time. The largest focus has been a transformation from vocational education into career and technical education with a focus on career and college readiness education. These programs focus on academic career vigor.
* 1.3 billion dollars of federal investment, through the Perkins act, is distributed to local agencies. Cybersecurity pathway is inserted into the career cluster.
* The average high school graduation rate for CTE programs is 93% showing a positive impact.
* Middle school jobs are a significant part of this economy and will require some college or two year associates degree.
* February is CTE awareness month.
* See attached presentation and click here for more information: [https://www.acteonline.org/cte/#.V4jhWjmU2L0](https://www.acteonline.org/cte/)
  1. **Report Roundup**
* Maryland Senator Susan Lee spoke to members about laying the foundation for the next generation and leaders in cybersecurity. Maryland recognizes that cyber-attacks are fast emerging and a threat to state security and economics.
* Within this state we have NIST, Johns Hopkins, UMD and top cyber companies. We are the epicenter of cybersecurity; moving forward to proactively protect data and increase education and jobs.
* In 2011, a commission was created tasked with a comprehensive overview but also to produce a strategic roadmap to make MD the epicenter of cybersecurity. Results show cybersecurity laws, and an increase in jobs.
* Members of the counsel are leading impacted fields with a goal to provide a strategy in developing a pipeline of cybersecurity jobs at all levels. Highlights of the recommendations are on education and workforce development. MD will expand its efforts to expose students to computer science, provide enhancements for students to remain in state, provide resources to University systems, develop career pipelines, and fund academic research in cybersecurity
* See attached presentation and find out more at: <https://www.oag.state.md.us/press/MD_Cyber_Council_Interim_Report.pdf>
  1. **Event Engagement**
* October is cybersecurity awareness month. Danielle Santos spoke about the several events occurring in October that align with cybersecurity training and workforce development. See the attached presentation for the list of events and for more information.
* Some highlights include:
  + The CLOSE IT Summit focuses on competency based education and hiring as well as competency based assessment.
  + The West Coast Summit helping to decode the cybersecurity diversity challenge.
  + The National K-12 Conference addressing the challenge and opportunities of cybersecurity education, training, and workforce needs of the nation.
  + Cyber Georgia – strengthening cybersecurity
  + CyberMaryland which features a job fair
  + Florida Center for Cybersecurity focused on workforce development, research, and current trends.
  + ATE Conference to focus on the critical issues related to advanced technological education.
  + Conference on Cybersecurity Education, Research, and Practice previously known as The Information Security Curriculum Development Conference.
* Danielle asked members to let the program office know of other events which can then be shared among the group.
  1. **Strategy Stories**
* Presenter Ken McCreedy, Maryland Department of Commerce, spoke about meeting an Australian counterpart during an annual meeting in DC. Their interest in cyber programs and discussion on the happenings in MD led to an arranged meeting to talk about their cybersecurity programs.
* The session kicked off with presentations from NIST, NSA and NICE. The federal government is at the center of workforce requirements. MD institutions presented examples of work being done as did their counterparts from Australia. States in Australia are required to designate a university as a cyber center of excellence.
* As a result of the meeting, they established a collaborative network and identified areas to partner and share. Next year, a meeting in Australia will be held on cyber education with an international audience.
  1. **Metric Moment**
* Presenter Isabel Cardenas, Navia of Business for Higher Education Forum (BHEF), shared information about the organization and the work they’ve been doing to support cyber education and workforce development by collaborating with business partners.
* BHES is a membership organization. Strategic partnerships are developed to build relationships and new initiative programs. Information and data is created to understand emerging trends in the field. Partnerships throughout the U.S. (MA, MD, FL, CA, etc.), include academia and business.
* BHES takes a unique approach to seek and track impact. The first program piloted future cyber leaders. Working with community college students and four year colleges, created a cohort program to build a community and mission for interns.
* We seek for those in these programs to stay committed to life long careers contributing to a broader community.
* The results have been positive and BHES has learned a lot. They would like to share lessons learned and implement into other business and university partners.
* Program examples include pilot programs in experiential learning and low cost models such as those at NoVA. Students volunteer at local small business who do security checks. They benefit by hiring students with hands on knowledge and in turn make sure they are providing a good service.
* BHES conducts research on cyber 101 courses. The approach is to track cyber students from the classroom to the workforce by using administrative data collected, tracking their cyber education. Partners from the UMD and NoVA link student data to workforce data. We want to ask are they in cyber careers, are they employed, and how are students doing? This contributes to our student pathways analysis.
* See attached presentation and find out more here: <http://www.bhef.com/our-work/future-cyber-leaders>

1. **Subgroup Updates**
   1. **K-12**

* Davina Pruitt-Mentle let members know project teams have been formed and several projects have established deliverables.
* One deliverable is a one pager currently under review. This will be sent out to the larger working group for comments.
* CSTA has interest in standards refresh and how cybersecurity can be incorporated into those standards. An informal project team has been looking at environmental scans and activities trying to figure out the best format and ways to share those materials.
* CTE programs are looking at state pathways in existence and how they can be similarly and effectively used across programs.
* Competitions, outside of cyber defense, such as robotics, are thinking about an infographic as a deliverable to help enlighten the landscape.
  1. **Collegiate**
* Barbara Endicott-Poposky, University of Washington, let members know that since the last report, meetings have not been held due to vacation schedules. However, Barbara was able to provide the following information.
* This subgroup provided a report submitted to the NICE Director at the beginning of August.
* Two working members were added and all members will be working to identify a replacement for Barbara who is set to retire as a co-chair at the end of this year.
* Based on NICE objectives, Collegiate has two project teams. One goal, accelerate learning and skills development, based on industry and government complaining how long it takes to bring the workforce up to speed. We are looking at methods to accelerate learning. An objective, to promote tools that assist human resource professionals and hiring managers with recruitment, hiring, development, and retention of cybersecurity professionals, looks at the disconnect between two year programs and HR requirements for four year degrees. This is also typical of government agencies. Topics such as job fairs, how to inventory and add, student associations and organizations are ways to accelerate knowledge.
* Collegiate is looking at ACA pathways for transfers and defining entry level jobs. Based on the items coming out of CNAP, we look at how we might leverage women, minorities, and veterans, reduce the shortage of teachers, provide curricular guidance, and create measures and partnerships with groups and tools for metrics to apply results.
  1. **Training and Certifications**
* Linda Montgomery let members know that two new individuals (Tim Denman and Simone Petrella) have been added.
* During the last meeting, project team updates were provided. The Cyber Range team is in the process of developing a one pager stating answering such as who, what, and why.
* The Skills Based Learning team looks at methodologies driving training and certification programs. It is important for employers to hire persons who have the right knowledge and skills. They are reviewing goals and developing descriptions to map various training and certifications to the NICE initiative document, providing a level of detail and catalog building.
* This subgroup originally established four project teams however two were recently combined. Supply and Demand and the Training Gap project teams elected to combine into one.
* Subgroup meeting occurrences have changed. Beginning in September, meetings will recur the first Wednesday of each month at 2:30 ET.
  1. **Career Development and Workforce Planning**
* Kristin Judge stated that there has been at least 8 or 10 new members added since the May timeframe.
* Established project teams are communicating and having meetings.
* A new name for this subgroup is coming soon once a consensus is reached.
* The Human Risk Mapping Project Team looks at ways an enterprise understands its responsibility to mitigate risk and takes into consideration human factors.
* The Charter Project Team has drafted a charter currently under draft and review. This document should be done in next 3-4 weeks.
  1. **Competitions**
* Dan Manson spoke about the first draft of the competitions one pager. The one pager will be finalized prior to the NICE conference.
* The competitions white paper is making progress. There is a draft under internal review and will be published in time for NICE conference. The paper illustrates the usefulness of competitions, roles of industry, exploration, benefits and challenges, awareness, offense and defense.

1. **Project Progress Reports**
   * **National K-12 Cybersecurity Education Conference** – Plans for the conference are coming along well. Registration is open on the website. The agenda ranges from informal sessions to standards across curriculum and pathways. Panels include representation from state, local, and international panels. Find out more here:

<http://csrc.nist.gov/nice/k-12conference/index.html>

* + **NICE Annual Conference** – Danielle Santos noted that registration is open. A half day pre-conference seminar has been added to provide information on pertinent topics and to offer additional time to engage with the NICE community. Seminars include building a cyber ready workforce and the NICE Workforce framework. This is a separate registration but is available on the same web page. The pre-conference is scheduled for October 31st. The full draft agenda and information on the three key notes are available. Find out more here:

<https://www.fbcinc.com/e/nice/>

1. **New Business**
   * Rodney Petersen provided an update on the NICE Strategic Plan. This plan was worked on by various groups much of last year and published in April, 2016.
   * The plan describes where were going. Our goals and mission has shifted. The previous goal one for example, raise national awareness about risks in cyberspace, is no longer a focus and not core to the current mission. Goal two remains front and center and goal three is a new plan resulting from Rodney’s’ arrival and the cybersecurity enhancement act requiring coordination of a national cybersecurity awareness and education program.
   * Our mission is to engage in academia, industry and government. The developed mission is more tightly focused (to energize and promote a robust network and an ecosystem of cybersecurity education, training, and workforce development) as is our vision (a digital economy enabled by a knowledgeable and skilled cybersecurity workforce). Looking at CO Springs, San Antonio and other cities, and hearing the information sharing on calls as well as the work of the subgroups, shows evidence of the values of our operating principles.
   * NICE is focused on its goals. How do we more rapidly increase supply, reduce educational time and cost such as how to make training more affordable given rising costs of tuitions and student debt? To reach the underemployed to increase the workforce? Create apprenticeships and identify gaps in skills and how training can address these issues?
   * The second goal, to nurture a diverse learning community, is scrutinized through pipelines and improving existing programs (core of subgroups). We seek to inspire young people at an earlier age during the K-12 conference and look at ways to increase women, minorities, and veterans in the workforce.
   * Goal three is to guide career development and workforce planning. We look to create pathways and relationships in academia and career centers and guide career development.
   * Measuring results is key as is data collection. Fun facts highlighted data and the resulting metrics. NICE affiliated programs such as the Jobs Heat Map, the cybersecurity workforce framework, and the Regional Alliances and Multistakeholder Partnerships to Stimulate (RAMPS) is central to what we do to raise awareness.
   * Helping HR with the process of recruiting, hiring, and retention including within the federal government. During last month’s working group meeting, Josh Moses from OMB spoke about the talent management process.
   * Sharing best practices such as having a panel at the NICE conference and reaching out to ACA institutions to share work we’re doing. The results capture and identify programs then shared during working group meetings and during our conference and in our newsletters.
   * We also ask, what do we need to do differently? It’s important to aim for something we can measure. We will continue the process of leveraging the work of the working groups and capture information. Staff liaisons will reach out to find what’s missing and what’s needed.
   * We look forward to your continuing participation. Cataloguing will happen over time then a plan to develop more details on an implementation plan.
   * See presentation attached and find out more here: <http://csrc.nist.gov/nice/about/strategicplan.html>
2. **Member questions:**
   * One member asked about the cost of conference fees and if there was an allowance for the underemployed or students? This is a large group not getting access while trying to get back into the market. The conference is planned through a cooperative agreement (life journey) who determine the fees. They try to keep it affordable.
   * Will there be an opportunity for working group members to meet at a planned event during the conference? The co-chairs and leadership will have a planned meeting and the general working group will have a session during the community update.
3. **Summary of Action Items** – meeting notes, presentation, and URLS will be sent to all members. Please remember to send in events you know about or are planning to attend.
4. **Next Meeting Reminder** – The next NICEWG meeting is scheduled for September 28, 2016 at 3:30 ET.