

NCYTE CENTER



Whatcom
COMMUNITY COLLEGE



Community College Cybersecurity Strategic Summit

December 8-9, 2022

Whatcom Community College, Bellingham, Washington

Welcome!

The National Cybersecurity Training & Education Center (NCyTE) is excited to welcome you to the Community College Cybersecurity Strategic Summit!

We are honored to be gathering in person with so many leaders and stakeholders in cybersecurity education to examine the essential role community colleges play in addressing what is working in cybersecurity education, what is needed, and how federal programs may be able to help stimulate initiatives and strategies.

Over the next two days, we look forward to working with some of the most influential minds in cybersecurity education. Presentations and discussions at this summit will help to inform the development of a National Strategy for Cyber Workforce and Education by the Office of the National Cyber Director (ONCD). This summit is organized by the National Cybersecurity Training & Education Center (NCyTE) located at Whatcom Community College, in Bellingham, Washington.



Syre Student Center at Whatcom Community College

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Organizing Institution

NCyTE - The National Cybersecurity Training and Education Center (NCyTE) at Whatcom Community College (WCC) is an Advanced Technological Education (ATE) National Center, grant-funded by the National Science Foundation (NSF).

NCyTE advances cybersecurity education in the U.S. by supporting technological innovation, creating and disseminating resources, and providing professional development and tools to support faculty, community colleges, and the workforce pipeline of tomorrow.

NCyTE is focused on building a comprehensive network of higher education institutions, businesses, and government agencies dedicated to developing and maintaining a robust cybersecurity workforce.

Whatcom Community College is a regionally and nationally accredited college with an accomplished faculty and staff who serve nearly 11,000 students annually. On its 72-acre campus in Bellingham, Washington, and through online courses, Whatcom offers transfer degrees, professional-technical training programs, as well as basic education, job skills, and Community & Continuing Education classes. The college is regularly recognized as one of the nation's top community colleges based on student success. Established in 1967, Whatcom has been accredited by the Northwest Commission on Colleges and Universities since 1976.

Health & Safety Policies

Expectations for Participants in the Community College Cybersecurity Strategic Summit

Covid Policy

NCyTE actively monitors the novel coronavirus situation and follows the guidance of the Centers for Disease Control & Prevention (CDC). The health and safety of our attendees, and staff are of paramount importance to us. Although not required, we recommend wearing a mask around large groups of people.

Preventing Discrimination, Harassment, and Bullying:

The organizers of the Community College Cybersecurity Strategic Summit are committed to the principles of diversity, integrity, civility, and respect in all our activities. We look to you to be a partner in this commitment during your Summit participation by helping us to maintain a professional and cordial environment.

Discrimination and Harassment

Whatcom Community College recognizes its responsibility for investigation, resolution, implementation of corrective measures, and monitoring the educational environment and workplace to stop, remediate, and prevent discrimination on the basis of race, color, national origin, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, or honorably discharged veteran or military status, or the use of trained guide dog or service animal, as required by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendment Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization Act and Washington State's Law Against Discrimination, Chapter 49.60 RCW and their implementing regulations.

Complaint Procedure

Whatcom Community College has enacted policies prohibiting discrimination against, and harassment of members of protected classes. Any individual found to be in violation of this policy will be subject to disciplinary action up to and including dismissal from the College or from employment. Any employee, student, applicant, or visitor who believes that he or she has been the subject of discrimination or harassment should report the incident or incidents to the College's Title IX / EEO Coordinator identified below. If the complaint is against that Coordinator, the complainant should report the matter to the president's office for referral to an alternate designee. The College encourages the timely reporting of any incidents of discrimination or harassment. Complaints may be submitted in writing or verbally. For complainants who wish to submit a written complaint, a formal complaint form is available online at: whatcom.edu/home/showdocument?id=360. Hardcopies of the complaint form are available in the Human Resource Office, Laidlaw Center (LDC) 235.

Reporting

Janice Walker, *Cybersecurity Special Projects Director* ■ JWalker@Whatcom.edu

Introduction

Community College Cybersecurity Strategic Summit

Hosted by the National Cybersecurity Training & Education Center (NCyTE) and Whatcom Community College in collaboration with the National Science Foundation and Office of the National Cyber Director

Thursday-Friday, December 8-9, 2022 – Whatcom Community College Campus

Overview: As recently reported by EMSI Burning Glass, (now Lightcast) the U.S. cybersecurity workforce gap continues to expand across all industries and services, and not only in qualified workers, but increasingly faculty with the knowledge and expertise to train the future workforce. Community colleges play a vital role in reaching untapped, diverse, potential new student populations to fulfill these positions through innovative student outreach and programming modalities, and other methods and efforts.

The Community College Cyber Strategy Summit will bring together 100 leaders and stakeholders in cybersecurity education including community college faculty and administrators, corporate partners, and government representatives. Participants from across the nation will examine what is working, what is needed, and how federal programs may be able to help stimulate key initiatives and strategies. Presentations and discussions at this summit will help to inform the development of a National Strategy for Cyber Workforce and Education by the Office of the National Cyber Director (ONCD).

Executive Program Committee: Corrinne Sande, PI/Director/NCyTE/CS/CIS, WCC; Janice Walker, Senior Personnel/Special Projects Director, NCyTE Center/WCC; Dr. Suzanne Nielsen, Director, Workforce and Education Strategy, ONCD; Paul Tortora, Deputy Assistant National Cyber Director, ONCD; Rafeeka Kloke, Special Assistant to the President & Director For Government Affairs, WCC.

Action Plan Committee: Corrinne Sande, PI/Director NCyTE/CS/CIS/WCC; Janice Walker, Senior Personnel/Special Projects Director, NCyTE Center/WCC; Cara Tang, Portland Community College; Suzanne Nielsen, Director, Workforce and Education Strategy, ONCD.



Agenda

Thursday, December 8, 2022

Time	Activity	Room
7:00 a.m. – 8:00 a.m.	Conference registration & breakfast	Syre auditorium
8:00 a.m.– 8:10 a.m.	Conference Kick-off and Welcome – <i>Corrinne Sande, PI/Director/NCyTE/CS/CIS, Whatcom Community College</i>	Heiner Theater
8:10 a.m. – 8:20 a.m.	Welcome – <i>Dr. Kathi Hiyane-Brown, President, Whatcom Community College</i>	Heiner Theater
8:20 a.m. – 8:25 a.m.	Welcome – <i>Dr. Corby Hovis, Program Director, National Science Foundation</i>	Heiner Theater
8:25 a.m. - 8:45 a.m.	Welcome – <i>Paul Tortora, Deputy Assistant National Cyber Director for Workforce & Education, Office of National Cyber Director</i>	Heiner Theater
	National Cyber Director Welcome Remarks - <i>Director Chris Inglis, Office of the National Cyber Director (recorded)</i>	Heiner Theater
8:45 a.m. –9:15 a.m.	Opening Keynote – Hacking the Gap: Fixing Cybersecurity's Broken Talent Pipeline - <i>Will Markow, Vice President of Applied Research, Lightcast</i>	Heiner Theater
9:15 a.m. – 9:30 a.m.	Break	Heiner
9:30 a.m. – 11:15 a.m.	Concurrent Sessions – Topical presentations and focused discussion groups	
Refer to your packet for which topic you signed up for.	Topic #1: Motivating & sustaining a whole of nation effort to develop the country's cyber workforce <i>Moderator: Paul Tortora, Deputy Assistant National Cyber Director for Workforce & Education, Office of National Cyber Director</i>	Heiner classroom #101
Refer to your packet for which topic you signed up for.	Topic #2: Addressing the shortage of secondary and community college educators in cybersecurity <i>Moderator: Marie Bruin, Director for Workforce Education, Washington State Board of Community & Technical Colleges</i>	Heiner classroom #102
Refer to your packet for which topic you signed up for.	Topic #3: Standardizing data for jobs and Classification of Instructional Programs (CIP) codes <i>Moderator: Karen Wetzel, Manager, National Initiative for Cybersecurity Education (NICE) Framework</i>	Heiner classroom #103
11:15 a.m. – 11:30 a.m.	Break	Heiner

Agenda

Thursday, December 8, 2022, cont'd

11:30 a.m. - 12:15 p.m. Open to all attendees	Panel #1: Native American perspectives for engaging in the cyber workforce <i>Moderator: Kara Four Bear, Superintendent, Eagle Butte School District</i>	Heiner Theater
12:15 p.m. - 1:30 p.m.	Working/networking lunch (Input on key questions and report out)	Syre Auditorium
1:30 p.m. – 3:15 p.m.	Concurrent Sessions – Topical presentations and focused discussion groups	Heiner classrooms
Refer to your packet for which topic you signed up for.	Topic #4: Aligning educational programs and workforce requirements <i>Moderators: Murray Kenyon, Cybersecurity Workforce Development Executive in Information Security Services, U.S. Bank; Patrick Massey, Region 10 Regional Director, Cybersecurity & Infrastructure Agency (CISA)</i>	Heiner classroom #101
Refer to your packet for which topic you signed up for.	Topic #5: Expanding and measuring diversification initiatives in cybersecurity at community colleges <i>Moderators: Lynn Dohm, Executive Director, Women in Cybersecurity (WiCyS); Reginald Marshall, Adjunct Faculty, Whatcom Community College/University of Washington</i>	Heiner classroom #102
Refer to your packet for which topic you signed up for.	Topic #6: Clarifying pathways into cybersecurity careers <i>Moderator: Jo Ann Baria, Vice President for Workforce, Economic & Professional Development, Pierce Community College</i>	Heiner classroom #103
Refer to your packet for which topic you signed up for.	Topic #7: President's Focus Group - The role and impact of senior administrators on cybersecurity workforce development <i>Moderator: Dr. Kathi Hiyane-Brown, President, Whatcom Community College</i>	Learning Commons #160
3:15 p.m. – 3:30 p.m.	Break	Heiner
3:30 p.m. – 4:15 p.m.	Focus Group report outs	Heiner Theater
4:15 p.m. – 4:30 p.m.	Wrap up remarks - <i>Corrinne Sande, PI/Director/NCyTE/CS/CIS, Whatcom Community College; Dr. Suzanne Nielsen, Director for Cyber Workforce & Education Strategy, Office of the National Cyber Director</i>	Heiner Theater

Agenda

Thursday, December 8, 2022, cont'd

4:30 p.m. – 5:30 p.m.	Evening Key Note: Building the Cyber Workforce for a Better and More Secure Future – <i>Camille Stewart Gloster, Esq., Deputy Director, Office of National Cyber Director</i>	Heiner Theater
5:30 p.m. – 6:45 p.m.	Catered Networking reception – Participants, invited guests and officials, media	Learning Commons 2nd Floor
6:30 p.m.	President's Dinner - By Invitation Only Bus transportation is provided and departs from the Pavilion Roundabout. If you are driving we will meet you there.	Nomad Charcuterie and Wine Restaurant, The Hamilton Building, 10 Prospect St, Bellingham
6:45 p.m.	No host dinner – participants gather at recommended restaurants to network	Bellingham restaurants
6:45 pm – 8:00 pm	Action Plan Committee meets to summarize outcomes	Laidlaw 143

Friday, December 9, 2022

Time	Activity	Room
8:00 a.m. - 9:00 a.m.	Breakfast and networking	Syre Auditorium
9:00 a.m. – 9:30 a.m.	Morning Key Note: I Can, We Can, Let's Make It Happen <i>Zach Oxendine, Service Engineer, Microsoft Corporation</i>	Heiner Theater
9:30 a.m. – 10:30 a.m. Open to all attendees	Panel #2: Community college student voices on cybersecurity career hiring - Moderator: Zach Oxendine, Service Engineer, Microsoft Corporation	Heiner Theater
10:30 a.m. – 11:30 a.m.	Action Plan, All Participants Discussion & Closing Remarks – <i>Corrinne Sande, PI/Director/NCyTE/CS/CIS, Whatcom Community College; Dr. Suzanne Nielsen, Director for Cyber Workforce & Education Strategy, Office of the National Cyber Director</i>	Heiner Theater
11:30 a.m.	Adjourn	

Focus Group Session Descriptions

Overarching Theme:
Engaging the U.S government in addressing the cybersecurity workforce gap

Topic 1

Motivating and sustaining a whole of nation effort to develop the country's cyber workforce

Moderator: Paul Tortora, Deputy Assistant National Cyber Director for Workforce & Education, Office of National Cyber Director

Challenge statement: With over 700,000 unfilled cybersecurity jobs nation wide, the workforce gap continuing to widen, and our nation increasingly vulnerable to cyber-attacks that threaten national security, our nation is at cross-roads.

Suggested questions to explore:

- How can the US launch and sustain a national effort?
- Can we define "cybersecurity" as an easily-comprehended profession?
- How can we clarify/simplify cybersecurity education pathways and access from secondary to higher education?
- How can we rapid-develop subject matter experts/trainers?
- How can we help young people and other citizens see themselves in a career in cybersecurity?
- Would tuition assistance/scholarships incentivize students to enter this field?
- Is there a need for transitional programs into employment (e.g. workforce preparation bootcamps)?

Topic 2

Addressing the shortage of secondary and community college educators in cybersecurity

Moderator: Marie Bruin, Director for Workforce Education, State Board of Community & Technical Colleges

Challenge statement: There is a nationwide shortage of qualified professionals pursuing teaching positions at secondary institutions and community colleges. This shortage is impacting the introduction and preparation of secondary students for cybersecurity education pathways, as well as the ability for community colleges to serve all potentially interested cyber degree-seeking students, improving their curriculum and supporting related student success initiatives on their campus.

Suggested questions to explore:

- What are best practices for attracting and retaining teachers and faculty in the face of highly competitive wages in industry?
- Can we implement loan forgiveness/tuition for commitment to teach at a community college?
- What supports can be provided for faculty in way of funding for certifications, training, bonus pay?
- What are opportunities for successfully recruiting educators from non-traditional sources?
- How can we better align teacher/faculty hiring requirements with actual skills needed to teach cybersecurity?
- What are resources/new initiatives to rapidly scale knowledge and skills of potential teachers/faculty?

Topic 3

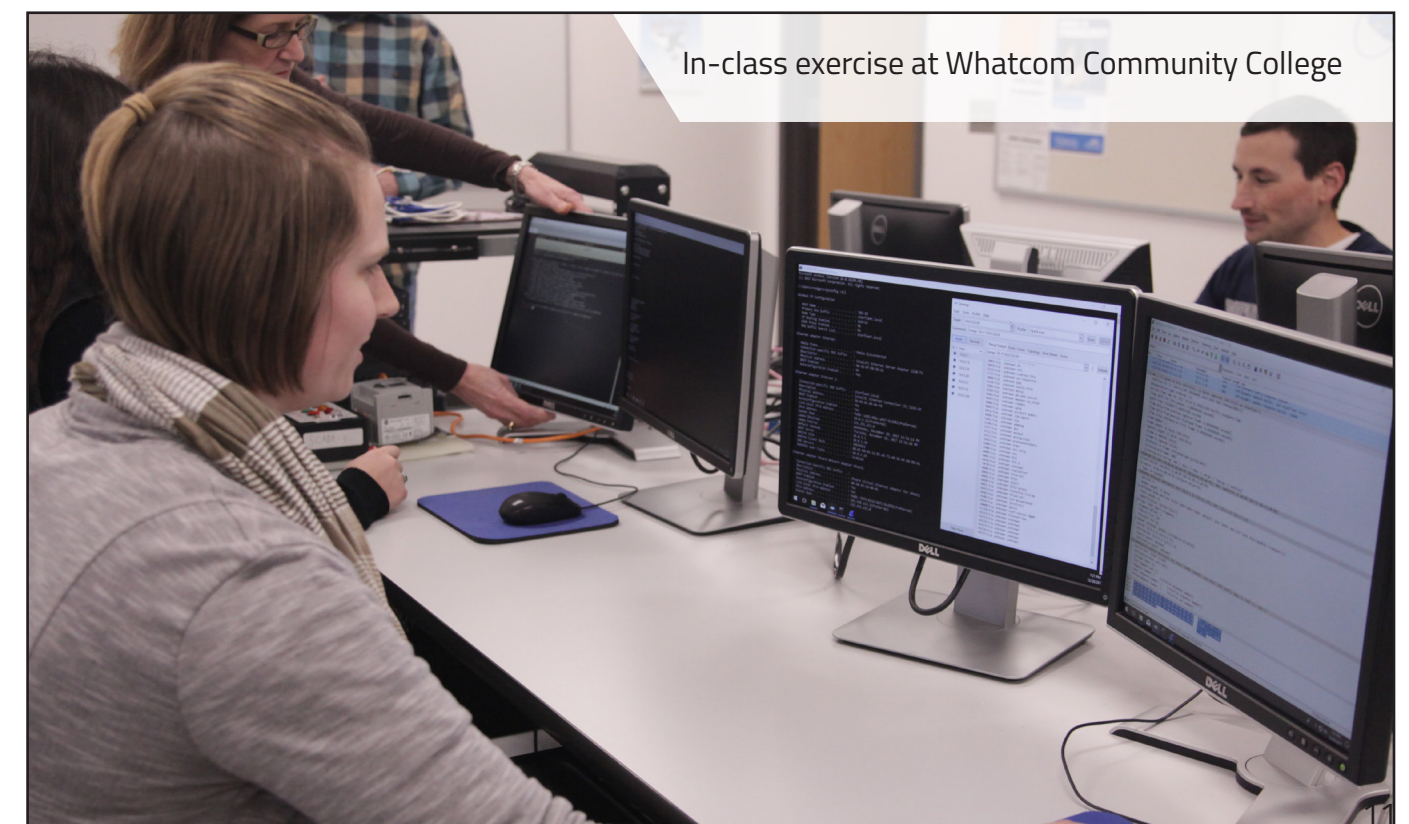
Standardizing data for jobs and Classification of Instructional Programs (CIP) codes

Moderator: Karen Wetzel, Manager, National Initiative for Cybersecurity Education (NICE) Framework

Challenge statement: It is critical for the U.S to be able to accurately report on and track the alignment of cybersecurity educational programs and their graduates. It is anticipated that much of the educational program coding at community colleges is currently outdated. Having accurate data will contribute to better understanding of how educational program coding may be contributing to the misalignment of graduate qualifications for open cybersecurity positions in the workforce.

Suggested questions to explore:

- Can the educational program CIP codes be aligned to the NICE work roles?
- How many two- and four-year cyber education programs exist and do they have the correct, current CIP does?
- How can we determine how CAE (Cyber Defense (CD), Research (R)) and Operations (O)) and other cybersecurity programs at institutions are coded for CIP, SOC, IPEDs, OPM, etc. and if they are outdated?
- Is there a correlation between specific educational content/programs and program graduate success in realizing employment in specific work roles?
- What are the number of graduates entering each work role per year?
- What is the relationship between these codes: CIP, SOC, IPEDS, OPM, etc.



Topic 4

Aligning educational programs and workforce requirements

Moderators: Murray Kenyon, Vice President – Cybersecurity Partnership Executive Information Security Services, US Bank; Patrick Massey, Region 10 Regional Director, Cybersecurity & Infrastructure Agency (CISA)

Challenge statement: Much has been written regarding the cybersecurity workforce pipeline and its inadequacy in responding to marketplace demands, as well as industry's hiring procedures and requirements related to entry- and mid-level cybersecurity/IT jobs. Outdated, invalid or inaccurate hiring requirements may bypass candidates for cybersecurity jobs who would be otherwise qualified, further contributing to the widening cybersecurity workforce gap.

Suggested questions to explore:

- Do Human Resource personnel use different hiring procedures related to entry level and mid-level cybersecurity/IT jobs than in other tech jobs? What drives this? Are these requirements hurting hiring opportunities of qualified individuals?
- What innovative hiring approaches are working to fill the cybersecurity workforce gap at companies?
- Is a Bachelor's Degree requirement increasingly not needed for some/many cybersecurity positions? What are surrogates to indicate preparation and competence?
- How are workplace teams or other approaches contributing to supporting entry level skill development in corporations?
- Is there a need for a bootcamp like experience for new graduates in order to be better prepared for the workplace?

Topic 5

Expanding and measuring diversification initiatives in cybersecurity at community colleges

Moderators: Lynn Dohm, Executive Director, Women in Cybersecurity (WiCyS); Reginald Marshall, Adjunct Faculty, Whatcom Community College/University of Washington

Challenge statement: Diversification of students in the cybersecurity education pipeline has been touted as a solution to addressing the workforce shortage, however many issues plague success and sustainability of cybersecurity program diversification initiatives in higher education and long term outcomes are unknown.

Suggested questions to explore:

- What diversification initiatives for cyber or other similar fields in higher education are working and why?
- What are new ideas for expanding diversification of the student pipeline and how can they be sustained?
- What initiatives are successfully retaining diverse employees in industry tech fields and why?
- How can we measure long term success once students from diverse backgrounds are employed in cyber positions?

Topic 6

Clarifying pathways into cybersecurity careers

Moderator: Jo Ann Baria, Vice President for Workforce, Economic & Professional Development, Pierce College

Challenge statement: A career pathway describes an educational ecosystem consisting of multiple elements of an effective and efficient course of study intending to lead to a specific career field. Pathway elements typically include secondary and postsecondary school courses and workforce learning programs, such as internships and apprenticeships. Well-designed career pathways enable students to gain an early start toward a targeted career, earn professional credentials while still in high school, and shorten the time required to complete academic studies and enter the workforce. Career pathways have been shown to greatly increase career awareness and interest, as well as workforce capacity for high-demand fields. The challenge faced by the cybersecurity academic community is the absence of a formal career cluster framework for the cybersecurity field.

Suggested questions to explore:

- Is there a need for a career cluster focused on cybersecurity and can it be developed?
- Are there successful defined pathways from high school to higher education and what are the requirements? Are there requirements or practices that are limiting success?
- How can we more effectively educate school counselors about cybersecurity education and career pathways?
- Is there a need for multiple nationally recognized pathways?



Topic 7

President's Focus Group - The role and impact of senior administrators on cybersecurity workforce development

Moderator: Kathi Hiyane-Brown, President, Whatcom Community College

Opening remarks: Camille Stewart Gloster, Deputy Director, Office of the National Cyber Director

Challenge statement: College presidents, government workforce stakeholders, and corporate leaders can strongly influence their organization's culture, direction and contribution to economic development and the national cybersecurity workforce shortage. This focus group will explore successful innovations and new ideas, and how they can position their organization to help address the growing workforce gap.

Suggested questions to explore:

- What role can corporate/workforce/higher education administrators play in solving for the cybersecurity workforce gap?
- How can we help to address the cybersecurity educator shortage?
- How do community colleges fit into the national workforce strategy?
- What are the key barriers community colleges face to offering/expanding cybersecurity programs?
- How can we collectively enhance the community college "brand" relative to the quality of graduates from community colleges?
- How can we improve pathways coordination between high schools, colleges, universities and the private sector?
- Beyond 2026, what new goals and challenges can you envision for higher education institutions offering cybersecurity education?
- By 2026, what will the status of cybersecurity education and the workforce be?
- What role can the US Government play in helping to address the workforce shortage?



Panel Sessions

Panel #1

Native American perspectives for engaging in the cyber workforce

Panelists will share unique perspectives for engaging tribal community members in the field of cybersecurity.

Moderator: Kara Four Bear, Superintendent, Eagle Butte School District

Panelists:

- Zach Oxendine, Service Engineer, Microsoft
- Justin Guillory, President, Northwest Indian College
- Dr. Donna Brown, President, Turtle Mountain Community College
- Kelton Starr, Education Director, Mescalero Apache Tribe

Panel questions:

- What are the key issues that tribes face that prohibit pursuit or access to fields such as cybersecurity?
- What would have to happen to engage more Native Americans to engage in this field?

Panel #2

Community college student voices on cybersecurity career hiring

Graduates from community colleges with two- and four-year degrees often struggle to convince prospective employers that their equivalent skills, knowledge and abilities meet job posting requirements. Listen to personal experiences of cybersecurity graduates seeking employment and their suggestions for streamlining alignment of job requirements to candidates.

Moderator: Zach Oxendine, Service Engineer, Microsoft Corporation

Panelists:

- Alambey Byrd, WCC BAS student and Technical Support
- Laurie Grey, WCC graduate, Cybersecurity Analyst, Anvil Corporation
- Judd Morse, WCC graduate, Network Security Engineer, Lawrence Livermore National Laboratory

Panel questions:

- Please introduce your selves and tell us about your current or most recent employment in cybersecurity.
- What practical lab work or assignments have you done that you feel best prepared you for employment?
- Where in your learning have you found the most opportunity for employment? (e.g. networking, analysis, industry control systems, etc.)
- What kind of barriers did you face in finding employment?

Keynote Speakers

Thursday Opening Keynote

Hacking the Gap: Fixing Cybersecurity's Broken Talent Pipeline



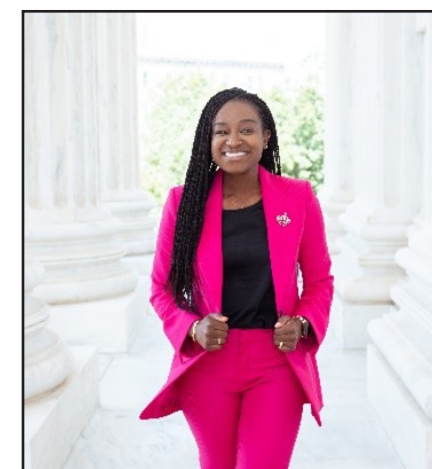
Will Markow

Will Markow is the Vice President of Applied Research – Talent at Lightcast where he oversees the research and consulting team focused on strategic workforce planning and the impact of emerging trends and technologies on the workforce. Will's research with Lightcast is routinely featured in national media outlets, and he has overseen hundreds of custom research projects for Fortune 100 companies, technology vendors, training providers, workforce development organizations, and government agencies. He has also advised multiple White House administrations on key issues related to the future of work.

In addition, Will is a frequently cited commentator on the cybersecurity talent shortage and, in partnership with CompTIA and the National Initiative for Cybersecurity Education, leads the development of CyberSeek, an interactive online tool providing definitive data on the cybersecurity workforce across the United States.

Thursday Evening Keynote

Building the Cyber Workforce for a Better and More Secure Future



Camille Stewart Gloster

Camille Stewart Gloster, Esq is the Deputy National Cyber Director for Technology & Ecosystem Security in the Office of the National Cyber Director at the White House. She is a cyber, technology, and national security strategist and policy leader whose career has spanned the private, public, and non-profit sectors. She joined ONCD from Google, where she most recently served as Global Head of Product Security Strategy, and before that as Head of Security Policy and Election Integrity for Google Play and Android. Camille also worked at the U.S. Department of Homeland Security where she led cyber diplomacy, technology policy, privacy, and a number of technical policy areas like encryption and PNT for the Office of Cyber, Infrastructure & Resilience

Policy. Camille has also held leadership roles focused on cyber and technology on Capitol Hill, at Deloitte, and Cyveillance, an open-source threat intelligence company.

Friday Morning Keynote

I Can, We Can, Let's Make It Happen



Zach Oxendine

Zach Oxendine was born and raised in Rock Hill, South Carolina but currently resides and works in Reston, Virginia. He is a member of the Lumbee tribe and a Child of Deaf Adults (CODA). He enlisted in the Air Force in 2014 and after serving for four and half years in Cyber Systems Operations, he entered the Air Force reserves where he continues to serve as a Cyber Staff Sergeant. During his enlistment he earned his associates in Information Technology from the Community College of the Air Force. Zach is now an engineer at Microsoft working on Air Gap cloud solutions. In addition to engineering, he serves as the external lead for Microsoft's United States Indigenous Employee Resource Group. Zach leads the development of STEM camps for High School students.

Zach also consults on cyber security education, and workforce development with tribal communities, rural communities, and college programs alike.

Speaker Bios

Speakers



Corrinne Sande

Whatcom Community College's Director of Computer Science and Information Systems, Corrinne Sande is the director of the National Cybersecurity Resource Center funded by the National Security Agency, and Principal Investigator for the National Cybersecurity Training & Education Center (NCyTE), a National Science Foundation-funded Advanced Technological Education (ATE) center that works to grow and strengthen the nation's cybersecurity workforce. Ms. Sande also served as Principal Investigator of Catalyzing Computing and Cybersecurity in Community Colleges (C5).

Through Ms. Sande's efforts, Whatcom Community College became the first National Center of Academic Excellence in Cyber Defense—Two-Year Education (CAE2Y) on the West Coast. She holds several industry certifications.

In recognition of her outstanding work as an advocate for cybersecurity education, Ms. Sande received the 2016 Pacific Region Faculty Award from the Association of Community College Trustees (ACCT).



Dr. Kathi Hiyane-Brown

Dr. Kathi Hiyane-Brown has been the President of Whatcom Community College in Bellingham, WA since 2007. She is a nationally recognized advocate for community colleges, organizational development, and leadership diversity. She is committed to supporting leadership development initiatives with underrepresented groups, and is a mentor to many aspiring leaders.

Kathi currently serves as a founding and executive committee member of the National Asian Pacific Islander Council, an affiliate council of the American Association of Community Colleges (AACC). She has served in leadership roles in a number of national organizations including: the National Initiative for Cybersecurity Education (NICE), the American

Association of Community Colleges (AACC) and AACC's Presidents Academy Executive Committee (PAEC); and the Commission on Diversity, Inclusion and Equity for the organization.

Kathi is an active member of the Washington Association of Community and Technical Colleges (WACTC), and the Northwest Workforce Council Board and the Rotary Club of Bellingham.

Born in Hawai'i, Kathi holds a Bachelor of Arts in Anthropology, from Grinnell College; a Master of Arts in Instructional Design and Technology from the University of Iowa; and a Doctor of Education in Community College Leadership from Oregon State University.

Speakers



Dr. Corby Hovis

Dr. Corby Hovis is a senior program officer at the National Science Foundation in Alexandria, Virginia. He oversees the NSF-wide Research Experiences for Undergraduates (REU) program. He also works in several grant programs in the Division of Undergraduate Education, including the Advanced Technological Education (ATE) program, where he manages the proposals and awards that focus on cybersecurity education, and the Improving Undergraduate STEM Education (IUSE) program, where he manages the proposals and awards involving physics and astronomy education. He also coordinates the Committee of Visitors (COV) process across the Directorate for STEM Education.

Before coming to NSF, Dr. Hovis served on the faculty of the honors college at Valparaiso University in Valparaiso, Indiana, and, at the same time, as science editor and associate producer at Encyclopædia Britannica/Britannica.com in Chicago. His main areas of research and teaching were in astrophysics and the philosophy and history of science. He earned his graduate degrees (Ph.D., M.S., M.A.) from Cornell University and his undergraduate degree from Wake Forest University. During his tenure at NSF, he also spent a year as an American Council on Education (ACE) Fellow in the Office of the President at The Ohio State University.



Paul Tortora

Paul Tortora is the Deputy Assistant National Cyber Director for Workforce, Education and Training, at the Office of the National Cyber Director. He is on a detailed assignment from the United States Naval Academy (USNA), where he serves as the Director of the Center for Cyber Security Studies. He was the inaugural Chair of USNA's Cyber Science Department, overseeing the first Bachelors of Science Cyber Operations program in the country. He spent over 26 years as an active-duty Naval Officer, qualifying as a Submarine Warfare Officer, Naval Nuclear Engineer, and Information Warfare Officer, serving across the globe in peacetime and combat operations over the course of five deployments. He is a USNA graduate with a Bachelor's of Science in Mathematics and Spanish Minor.

He holds a Masters of Science in Management, from the University of Maryland University College, and Masters of Arts in National Security and Strategic Studies, from the US Naval War College.

Speakers



Director Chris Inglis

Chris Inglis currently serves as the first Senate-confirmed National Cyber Director and advisor to the President of the United States Joe Biden on cybersecurity. He previously worked as a US Naval Academy Looker Distinguished Visiting Professor for Cyber Studies, as a managing director at Paladin Capital, a member of the boards of several public and private corporations, and as a Commissioner on the U.S. Cyberspace Solarium Commission. He retired from the Department of Defense in January 2014 after 41 years of federal service, including 28 years at the National Security Agency and seven and a half years as its Deputy Director. He served as a member of the Department of Defense Science Board and as a National Intelligence University trustee until early 2021. A 1976

graduate of the US Air Force Academy, Inglis holds advanced degrees in engineering and computer science from Columbia University, Johns Hopkins University, and the George Washington University. Inglis' military career includes 30 years of service in the US Air Force and Air National Guard — from which he retired as a command pilot at the rank of Brigadier General. He and his wife Anna have three grown children and reside in Annapolis, MD.



Dr. Suzanne Nielsen

Dr. Suzanne Nielsen is serving as the Director, Cyber Workforce and Education Strategy, in the Office of the National Cyber Director. A colonel in the US Army, she is currently on sabbatical from the U.S. Military Academy at West Point, where she is a Professor of Political Science and the Head of the Department of Social Sciences. She teaches courses in international relations and national security, and her research interests include organizational change, civil-military relations, and cyber policy and strategy. An intelligence officer by background, she has served in the United States, Germany, the Balkans, Korea, and Iraq. A graduate of the US Military Academy, she also holds an MA and a PhD in political science from Harvard University. She serves on the

governing council of the Inter-University Seminar on Armed Forces and Society, and she is a member of the Council on Foreign Relations.

Moderators and Panelists

Moderators

Listed in order of appearance in program

Paul Tortora

See bio on page 21



Marie Bruin

Marie Bruin is the state Director of Workforce Education for the Washington State Board for Community and Technical Colleges. Prior to her current position she worked as the WIOA Implementation Manager in the Workforce Initiatives Division at the Employment Security Department. She is returning to the Washington State Board for Community & Technical Colleges, where she previously provided leadership and coordination for Workforce in the community and technical college system. Marie has more than 20 years of comprehensive experience implementing and leading strategic Workforce initiatives, organizational change, agency collaboration, and has played a key role in improving access to workforce resources

including innovative programs, career pathways, registered apprenticeship, programs for youth, and resources reducing systemic barriers. Marie is driven by a firm commitment to access and creating every possible opportunity to make available the education, skills, and abilities needed to help others obtain living wage jobs.

A native of Tacoma, Washington, Marie earned a Bachelor of Science in History and Political Science from Central Washington University. She has held numerous leadership positions in the private sector and in state government, including serving as Vice Chair of the Board of Ethics for the City of Tacoma. Marie is a graduate of Advancing Leadership, leadership training for work, service and life and the Washington Community College Trustee's Association Executive Leadership Academy (WELA).



Karen Wetzel

Karen Wetzel joined the National Initiative for Cybersecurity Education (NICE) as Manager of the NICE Framework in October 2020. In this role she is responsible for leading efforts around the development, improvement, and application of the NICE Workforce Framework for Cybersecurity (NICE Framework) in support of an integrated ecosystem of cybersecurity education, training, and workforce development. Karen's specializes in community engagement and collaborating with stakeholders and subject matter experts to identify, communicate, and develop guidance, tools, and resources and to address emerging trends and opportunities. Prior to joining NICE, Karen was Director of the Community Groups and Working Groups programs at EDUCAUSE and

served as Standards Program Manager for the National Information Standards Organization (NISO).

Moderators



Murray Kenyon

Murray W. Kenyon is Cybersecurity Partnership Executive in Information Security Services at U.S. Bank, where he fosters value-added partnerships with Government, peer Financial Entities, Trade and Industry Associations, select Academic Institutions, and other advocacy groups focused on Cybersecurity of the nation's Financial Critical Infrastructure. Murray is a seasoned leader of national-level initiatives in cyber- and communications security, geo-political analysis, intelligence operations, public-private information sharing, and critical infrastructure protection. He concluded 33 years at the National Security Agency (NSA) in the Senior Executive Service and then led the Bank Policy Institute's Cybersecurity Program prior to joining U.S. Bank.



Patrick Massey

Patrick Massey serves as the Regional Director of the Cybersecurity and Infrastructure Security Agency (CISA) Region 10 office in Seattle. Prior to joining CISA in 2016, Mr. Massey served for twenty years with the Federal Emergency Management Agency (FEMA) including as the Director, National Preparedness Division, Regional Integration Branch Chief, and Technological Hazards Branch Chief. He also trained as a Nuclear, Biological, and Chemical Officer in the U.S. Army serving in Germany and the First Gulf War.



Lynn Dohm

Lynn Dohm brings more than 25 years of organizational and leadership experience to the WiCyS team. She has successfully collaborated with businesses, nonprofits and NSF-funded grants and helped produce outcomes that aligned with their cybersecurity business goals. Lynn has long been committed to cybersecurity education and for the last 14 years held active roles in grant-funded programs and nonprofits that assist in providing educational solutions for the cybersecurity workforce. She is passionate about the need for diverse mindsets, skill sets and perspectives to solve problems that never previously existed and aims to facilitate learning opportunities and discussions on leading with inclusion, equity and allyship.

Moderators

Reginald Marshall

Reginald comes to us from Western Washington University (WWU) with B.S. degree in Cybersecurity. Reginald brings a wealth of experience, including industry experience in various roles going back to 1984, a military career in the (US Navy, where among other roles he was a Naval Instructor), and an AAS-T degree in Cybersecurity from Whatcom Community College (WCC).

Reginald is from Chicago, Illinois. He attended St. Ignatius College Prep before moving on to Drake University for collegiate studies. While at Drake, he decided to join the US Navy which brought him to the West Coast in 1979. He served in various roles on active duty (Electrician, Data Systems Technician) for 11 years before transitioning to the civilian IT field to work for Digital Equipment Corporation in 1990. Since then, he has worked in the IT field across industrial sectors including Banking, Insurance, Pharmaceuticals, Defense, and Technology.

A contract with Cingular Wireless in 2006 brought him to the Pacific Northwest. Reginald was hired as a permanent employee in 2007 and once Cingular merged with AT&T, worked for AT&T until 2017, when he decided to return to school to study Cybersecurity at WCC and WWU. He graduated first from WCC with an AAS-T in Cybersecurity in 2019 and transferred to WWU to complete his B.S. in Cybersecurity in 2021.



Jo Ann Baria

Jo Ann serves as the Vice President for Workforce, Economic and Professional Development at Pierce College. In that position she has responsibility for new program development including building pathways from entry level through Applied Bachelor's degrees in high demand areas. Jo Ann supported development of the Homeland Security Emergency Management Center of Excellence, the strong degree pathway in that sector, and the related IT/CIS pathways that include Cybersecurity. Prior to the VP and Dean positions at Pierce, Jo Ann was tenured Business Faculty. She also taught at the University of North Texas before moving to Washington.

Dr. Kathi Hiyane-Brown

See bio on page 20

Moderators



Kara Four Bear

Kara Four Bear currently serves as Superintendent of the Eagle Butte Public School District 20-1 and has previously served as an education administrator, classroom teacher, and early childhood educator. She participates in and contributes to collaborative local, state, and national educational technology-based and health initiatives with a practical focus on the school turn-around process to promote student success in education.

Four Bear has been recognized for her leadership and commitment to education as an inaugural recipient of the National 2020 Presidential Cybersecurity Educator's Award; 2019-2020 North Dakota Governor's

Innovation in Education Award for Excellence in Building Leadership; and the 2019 North Dakota Governor's Excellence in Public Service Roaming Bison Award. Four Bear currently serves on the South Dakota Department of Education's Committee of Practitioners where she is active in promoting educational equity for all learners within South Dakota.

Four Bear continues to be active in educational leadership initiatives and contributes further to develop robust, relevant, and equitable academic programming and policies for all learners within her capacity as Superintendent. Education is Four Bear's passion and she strives to be a lifelong learner in her field and in life. Four Bear is a connected educator and may be found via LinkedIn or Twitter @NDNEducation.

Zach Oxendine

See bio on page 18

Panelists

Listed in order of appearance in program



Dr. Justin Guillory

Justin P. Guillory, PhD, was appointed as the President of NWIC in July 2012, after serving for more than five years as NWIC's Dean of Academics and Distance Learning and Dean of Extended Campus Sites.

Dr. Guillory's previous professional experience includes serving as the site manager for the NWIC Nez Perce extended campus site on the Nez Perce reservation in Lapwai, Idaho, and as the graduate assistant/mentor program coordinator for the Native American Student Center within the Office of Multicultural Student Services at Washington State University.

Dr. Guillory is a descendant of the Nez Perce Tribe and also has African American and Hispanic ancestry. He received a full-ride football scholarship to Eastern Washington University where he received a bachelor's degree in 1998 after which he attended graduate school at Washington State University and earned a Master of Arts in Educational Administration in 2000 and consequently a PhD. in Higher Education Administration in 2008.



Dr. Donna Brown

Dr. Brown is the president of Turtle Mountain Community College (TMCC) in Belcourt, North Dakota. TMCC is a tribal college that primarily serves the Turtle Mountain Band of Chippewa Indians. Donna is a tribal member who is "back home" after having served more than 30 years in higher education institutions in North Dakota and Minnesota. Most of her experience has been working with diverse populations, primarily American Indians. Recruitment, retention, and providing access to education has been the focus of her work. Other experiences include serving on the National Advisory Council on Indian Education under President Bush, serving on the Board of Directors for the Cass/Clay YWCA, and co-chairing the YWCA Racial Justice Committee. In addition,

she has recently been appointed to the Board of Trustees for the Smithsonian National Museum of the American Indian.

Panelists

Kelton Starr

Education Director, Mescalero Apache Tribe

Alambey Byrd

WCC BAS student and Technical Support



Laurie Grey

Laurie Grey is a cybersecurity analyst and the Cyber Range coordinator at Anvil Corporation currently focusing on ICS security. Laurie is a fan of standards, frameworks and documentation and truly enjoys NIST publications. She earned her BAS degree in IT Networking - Cybersecurity from WCC in 2020, amidst the early chaos of the pandemic. Laurie was a member of the WCC team in the Department of Energy's CyberForce Competition at PNNL for two years and continues to participate as a volunteer each year.



Judd Morse

Judd Morse graduated from Whatcom Community College with a Bachelors of Applied Science in IT Networking-Cybersecurity in 2022. He is a Certified Forensic Computer Examiner through the International Association of Computer Investigative Specialists, and works as a Network Security Engineer at Lawrence Livermore National Laboratory in Livermore, California.

Nearby Restaurants

Mykonos Greek Restaurant Greek restaurant - \$\$ 1650 W Bakerview Rd	Lombardi's Italian restaurant - \$\$\$ 21 Bellwether Way	La Fiamma Wood Fire Pizza Pizza restaurant - \$\$ 200 E Chestnut St
Red Robin American restaurant - \$\$ 100 Telegraph Rd	The Loft Restaurant American restaurant - \$\$ 1801 Roeder Ave	Bellingham Cider Company American restaurant - \$\$ 205 Prospect St
Sliced Italian restaurant - \$\$ 70 Bellis Fair Pkwy	Anthony's Hearthfire Grill Steak restaurant - \$\$\$ 7 Bellwether Way	Soy House Vietnamese restaurant - \$\$ 400 W Holly St
Mi Mexico Mexican restaurant - \$\$ 241 Telegraph Rd	Anthony's Seafood restaurant - \$\$\$ 25 Bellwether Way	Boundary Bay Brewery & Bistro American restaurant - \$\$ 1107 Railroad Ave
Hokkai Ramen & Sushi Japanese restaurant - \$\$ 4277 Meridian St	Lighthouse Bar & Grill Seafood restaurant - \$\$\$ 1 Bellwether Way	Storia Cucina Italian restaurant - \$\$ 109 Grand Ave
Oishii Teriyaki Japanese restaurant - \$\$ 424 W Bakerview Rd	D'Anna's Cafe Italiano Italian restaurant - \$\$ 1319 N State St	Brandywine Kitchen American restaurant - \$\$ 1317 Commercial St
Asian 1 Asian restaurant - \$\$ 4285 Meridian	Zeeks Pizza Pizza restaurant - \$\$ 2416 Meridian St	Aslan Brewing Company American restaurant - \$\$ 1330 N Forest St
Kuru Kuru Sushi Sushi restaurant - \$ 11 Bellwether Way	Bantam American restaurant - \$\$ 1327 Railroad Ave	

Campus Map



Accessible parking

For security questions:

Please call WCC Security at 360.920.7489



