

### Educational Partners

Hampton City Schools  
Newport News City Public Schools  
Virginia Beach City Public Schools  
Advanced Technology Center  
Tidewater Community College  
Thomas Nelson Community College  
Virginia Community College System  
College of William and Mary  
Norfolk State University  
Old Dominion University

### Government & Non-Profit Partners

City of Hampton Economic Development  
Reinvent Hampton Roads  
Commonwealth of Virginia House of Delegates Ron Villanueva  
Cyber Protection Resources  
Hampton Roads Economic Development Alliance  
ISSA-HR  
Jefferson Lab  
Opportunity, Inc.  
Virginia Space Grant Consortium (VSGC)  
Virginia Beach Economic Development  
Virginia Beach Vision  
Virginia Beach Hotel Association

### Business Partners

360IT	Packet Forensics
ABNB FCU	Peregrine Technical Solutions, LLC.
AERMOR	Port of Virginia
Bon SeCours Health System	SAIC
Booz Allen Hamilton	Sentara Healthcare
CSBDI	Sera-Brynn
CRTN Solutions (LLC)	StratasCorp Technologies
G2-Ops	Towne Bank
Hunting Ingalls, Newport News Shipbuilding	Vostrum Holdings, Inc.
Klett Consulting	VNG Consulting
Obsidian Technology Group	

## Hampton Roads Cybersecurity Education, Workforce and Economic Development Alliance (HRCyber)



Hampton Roads Cybersecurity Education, Workforce and Economic Development Alliance

### HRCyber Mission and Objective: The

Hampton Roads Cybersecurity Education, Workforce and Economic Development Alliance (HRCyber) is a partnership between educational institutions, government agencies, non-profit organizations, and private employers focused on developing educational pathways from high school through community college to four year institutions and continued professional development providing a capable and fully trained cybersecurity workforce for the region.

HRCyber aligns regional educational and skills development offerings to the workforce practices and activities of business and non-profit organizations within the Hampton Roads region with the specific goal of supporting local economic development and job growth via establishment of a multi-stakeholder Alliance.

The Alliance focuses on leveraging the NICE Framework, addressing cyber workforce needs, training providers conforming to the NICE Framework, and increasing the pipeline of students pursuing cybersecurity career by aligning high school, community college, and university coursework with the needs of local employers.

Funding for this project was provided by the Department of Commerce National Initiative for Cybersecurity Education (NICE), Regional Alliances and Multistakeholder Partnership to Stimulate (RAMPS) Cybersecurity Education and Workforce Development program.

The **goals and activities** of HRCyber parallel the NICE strategic plan and include:

**Goal 1:** Coordinate educational pathways among public high schools (Virginia Beach City Public School District/Advanced Technology Center, and Newport News City Public Schools), community colleges -- Tidewater Community College (TCC) and Thomas Nelson Community College (TNCC) -- and four year institutions (ODU and the College of William and Mary)

- ✓ Develop a virtual skills-based learning lab where regional partners can educate about cybersecurity
- ✓ Develop cybersecurity program articulation agreements between 2-year and 4-year colleges/universities
- ✓ Revise cybersecurity curricula in community college and university courses so the courses more easily transfer between institutions

**Goal 2:** Gather, organize and make available information from the regional workforce about the knowledge and skills needed in cybersecurity programs using the NICE-identified knowledge, skills, and abilities framework and revise curricula where needed.

- ✓ Establish a partnership between schools, colleges, and workforce partners to increase understanding about cybersecurity risks in our region
- ✓ Catalogue our region's workforce needs and mapping those needs to as many of the 32 specialty areas, as appropriate, as provided in the NICE Framework
- ✓ Conduct a regional workforce demand analysis using the NICE framework as a guide

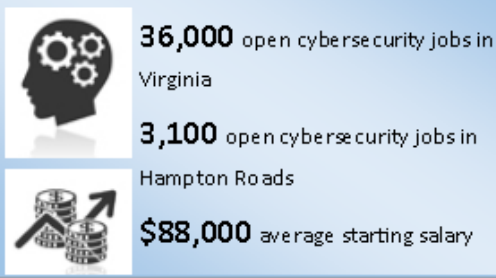
**Goal 1:** Coordinate educational pathways between public high schools, community colleges, and four year institutions

**Goal 2:** Gather information from the regional workforce about the knowledge and skills needed in cybersecurity programs & revise curricula as needed.

**Goal 3:** Coordinate academic programming among educational institutions and workforce

**Goal 4:** Strengthen the cybersecurity capabilities of the regional workforce

### Cybersecurity Workforce demand



**Goal 3:** Coordinate academic programming among educational institutions and workforce to ensure relevance and linkages to the NICE Framework

- ✓ Create the HRCyber homepage for information sharing
- ✓ Develop cybersecurity pathways among the Virginia Beach and Newport News Public High Schools and Tidewater and Thomas Nelson Community Colleges
- ✓ Educating high school and college advisors, and career coaches about cybersecurity and cybersecurity careers – Cyber Counselor Workshop

**Goal 4:** Strengthen the cybersecurity capabilities of the regional workforce which includes a large complex of military bases, joint forces, federal facilities, and defense-related businesses, as well as healthcare companies.

- ✓ Educate high school students and their parents about cybersecurity – Cyber Saturday
- ✓ Produce cybersecurity career awareness videos
- ✓ Provide cybersecurity internship and apprentice opportunities to students from Virginia Beach Public High Schools, TCC, TNCC, ODU and the College of William and Mary
- ✓ Host a cybersecurity workforce development summit

**Current outputs** from HRCyber's efforts include the following:

- A website that serves as a portal where regional stakeholders can learn more about cybersecurity in the region - (<http://securitybehavior.com/hrcyber/index.html#>)
- An infrastructure including multiple stakeholders from education, workforce development, industry, governmental agencies, and non-profits (Currently 41 partner institutions aligned with HRCyber)
- Articulation agreements that will make it easier for students to move between higher education institutions in the region
- Career videos for individuals interested in learning more about cybersecurity
- A curriculum matrix from an occupational analysis of a cybersecurity analyst in the region
- Completion of a Cyber Counselor Workshop for high school career coaches and guidance counselors
- Completion of two Cyber Saturday Workshops for high school students and parents interested in learning more about cybersecurity education and career potential

**Future outputs** from the HRCyber effort include the following:

- A cybersecurity virtual laboratory for training regional high school and college students
- The infrastructure for conducting additional occupational analysis for other cybersecurity careers
- A regional cybersecurity internship program administered through the Virginia Space Grant Consortium
- An expanded pipeline of cybersecurity employees
- The infrastructure and partnerships needed to seek additional federal and industry funding

For more information about this project see the HRCyber website (<http://securitybehavior.com/hrcyber>) or contact John Costanzo, at [jcostanz@odu.edu](mailto:jcostanz@odu.edu) or 757-368-4148.



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