CYBERWATCH K-12 DIVISION PROGRAMS

NSF Funded ATE Center whose mission is to increase the information assurance career pipeline and improve C3 awareness with research based programs for schools and communities.

C3 CONFERENCE: The annual Cyberethics, Cybersecurity, and Cybersafety (C3) Conference held each fall (October) at the University of Maryland. The conference includes presentations, materials and workshops which informs the educational community about the ethical, legal, safety, and security implications of technology use and illustrates how educators and parents can apply these concepts to their own setting. Information from past conferences and registration for this year's conference can be found at http://www.edtechpolicy.org/C32010/

COOL CAREERS IN CYBERSECURITY FOR GIRLS SUMMIT: Middle school girls learn from women in companies and agencies throughout the state what it takes to navigate the professional pipeline in the vast fields of Cybersecurity and Information Assurance as well as other science, technology, engineering, and mathematics (STEM) fields. Held each Fall (MD) and Spring (VA).

VIRTUAL DIGITAL FORENSICS LAB: Virtual machines running on hardware hosted at the University of Maryland, College Park function as forensic workstations for all member institutions. The DFL is for courses and workshops in forensic examination of digital media and network activity. Currently developing exercises, activities, materials that can be used by faculty and for high school students, including forensic case studies.

MINDTOOLS/CYBERSTEM: Summer and afterschool fun for elementary through high school students to explore cybersecurity and information assurance careers through dynamic and challenging educational technology activities. In addition to field trips to the NSA, Lazarus, NIST, Edgewood Biologic Center, National Crimes Museum, the National Cryptologic Museum, and National Electronics Museum, just to name a few, students reinforce computational thinking skills as they use popular programming environments and forensic tools to investigate network activity and hidden files and make games, movies, and learning activities. 5 modules developed for 3 grade bands: Computational Logic, Digital Forensics, System Vulnerabilities, Cryptography, and Cyberethics, safety and security. Programming environments and tools include: *LOGO, Rapture, Python, Excel, Scratch, Alice, GoogleSketchUp, StarLogo, Wireshark, and FTK lite.-AA, Howard, Harford, PG, 2011-CA & FL*

HIGH SCHOOL CTE CYBERSECURITY TRACK: Has been approved by the Maryland State Department of Education piloted running in Baltimore and Howard County Public Schools (working with Harford and AACPS)

SECURE IT (STRATEGIES TO ENCOURAGE CAREERS IN CYBERSECURITY AND IT): Holistic model with programs for students, educators, guidance counselors, parents and community members to support careers in IA. Longitudinal data tracks the progress of this program.

CAREERS IN CYBERSECURITY FOR GUIDANCE AND CAREER COUNSELOR WORKSHOP: In partnership with the Maryland State Department of Education, this one day workshop introduces counselors and STEM coordinators to IA/IS, Cybersecurity and Digital Forensics career opportunities, and choices within these categories, as well as the multiple pathways to enter the workforce in these areas. Industry employers speak to participants about career opportunities, student internships, externships and other related opportunities. School counselors learn about current and future career trends in IA/IS, receive updates and current promotional materials for distribution to interested students and parents, and discover how to use the CyberWatch Center website to find answers to questions from parents, students, and other educators.

K12 CYBERSECURITY AWARENESS CAMPAIGN: During October, Cybersecurity Awareness Month, schools receive Toolkits for students and parents.

C3 EDUCATIONAL GRANTS: Funding provided to encourage dissemination of Cyberawareness and empowering students to be ethical, responsible and resilient cybercitizens. Grants must include the integration of C3 content into existing curriculum.

K12 CYBERAWARENESS CONTEST: Competition for K-12 students to create posters, short videos, and interactive games for K-12 students. Winners receive cash prices. Content featured on the CyberWatch website and in K-12 awareness campaigns.

CYBERSECURITY OLYMPIAD: Based on the National Math Olympiad, contest that will provide schools with questions to challenge students on Cybersecurity topics.

Other opportunities pending.