

POSITION: FAVORABLE

APPROPRIATIONS COMMITTEE

Senate Bill 753

Labor and Employment - Workforce Development - Cybersecurity

Written Testimony
Submitted by

Donna Ruginski
Executive Director for Cybersecurity Initiatives
UMBC

April 7, 2022

Chair McIntosh, Vice Chair Chang, and members of the committee, I appreciate this opportunity to provide testimony on behalf of UMBC in support of SB 753. Recognized as a Carnegie R1 Institution, UMBC is well-known for innovation and inclusive excellence in cybersecurity education, research, entrepreneurship, and workforce development. UMBC's role in the State's cybersecurity ecosystem includes achieving a 60 percent increase in computing majors over the past 10 years, supporting cybersecurity workforce training and apprenticeships through UMBC Training Centers, and launching innovative programming at its research and technology park to attract one of the greatest concentrations of cybersecurity companies in the nation.

UMBC's Center for Cybersecurity (UCYBR) provides interdisciplinary academic and research leadership, partnership, innovation, and outreach in the critical discipline of cybersecurity through our academic, research, workforce development, and technology incubation activities. Through UCYBR, UMBC is one of the few universities in the nation designated both a Center of Academic Excellence in Cyber Defense (CAE-CD) and Cyber Research (CAE-R) by the National Security Agency (NSA), as well as a prominent National Science Foundation (NSF) Federal CyberCorps/Scholarship for Service (SFS) participant since 2012. The UMBC CyberDawgs team has been recognized as the 2017 National Champions of the Collegiate Cyber-Defense Competition, 2019 National Champions of the Department of Energy CyberForce competition, and repeat winners and/or finalists at the Maryland Cyber Challenge. UMBC is the number one provider of technology talent to NSA and will continue to fulfill the mission of education, producing future technical leaders and developing the cybersecurity workforce for our region.

UMBC has established itself as a leader in cybersecurity education for the manufacturing sector. In a partnership between UMBC, UMBC Training Centers, and the Manufacturing USA institute MxD, we developed the Cybersecurity for Manufacturing Operational Technology (CyMOT) curriculum for upskilling manufacturing workers for roles in cybersecurity. In addition, we tailored the CyMOT curriculum for community colleges students. UMBC plans for an Operational Technology (OT) cyber range will provide hands-on exercises for cybersecurity training in a manufacturing OT environment. Additionally, the CyMOT Cybersecurity Operator apprentice program UMBC is creating in collaboration with the Maryland Manufacturing Extension Partnership will provide important workforce development resources for Maryland manufacturers.

The State has tapped the University System of Maryland (USM) and UMBC to host several cybersecurity workforce development initiatives that SB 753 would help bring to scale:

The Maryland Institute for Innovative Computing (MIIC): MIIC was established as a collaboration between the Governor of Maryland and UMBC to apply the talent at UMBC and other USM institutions to establish computing innovation extension rapid response teams to develop solutions for the most pressing IT and data analytics needs in state agencies; develop solutions for IT problems in state and local government through applied research in cybersecurity, data sciences, and artificial intelligence; and activate a multi-level computing and technology workforce development strategy for State agencies by leveraging the Maryland Technology Internship Program and workforce upskilling.

The Maryland Technology Internship Program (MTIP): MTIP helps Maryland retain top tech talent by increasing the number of paid technical internships offered in the state. Students from all Maryland higher education institutions and community colleges meeting academic qualifications are eligible to participate.

The Maryland Center for Computing Education (MCCE): A collaboration with USM, MCCE expands access to high-quality Pre-Kindergarten-12 computing education by strengthening educator skills and increasing the number of elementary and secondary computer science teachers.

The SB 753 Cybersecurity Workforce Accelerator Program would build on already established university-government-industry partnerships to achieve greater efficiency and effectiveness. We urge your support of this bill.