

SB753_USM_FAV.pdf

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Position: FAV



SENATE FINANCE COMMITTEE
Senate Bill 753
Labor and Employment - Workforce Development - Cybersecurity
March 17, 2022
Patrick Hogan, Vice Chancellor, Government Relations, USM
Jack Suess, CIO & Vice President for Information Technology, UMBC
Favorable

Chair Kelley, Vice Chair Feldman and committee members, thank you for the opportunity to offer our support for Senate Bill 753. The University System of Maryland (USM) is a major resource in Maryland's workforce development system and a key partner with the State in a Workforce Development initiative designed to produce 3,000 more graduates a year with degrees in the growing fields of cybersecurity, STEM, and healthcare. University System of Maryland institutions also award large numbers of post-baccalaureate certificates and industry certifications and collaborate with all community colleges and K-12 school systems to expand the workforce pipeline.

Growing the pool of talented Maryland workers in fields with high workforce demand will help to meet the needs of these burgeoning industries, attract more of these businesses to the State, and continue to grow jobs throughout the region.

In collaboration with the State of Maryland and sister USM campuses, the University of Maryland, Baltimore County (UMBC) has emerged as a hub for cybersecurity workforce development, administering initiatives that include varied higher education, K-12, government and industry partners. 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, launching innovative programming at its research and technology park to attract one of the greatest concentrations of cybersecurity companies in the nation, and applying investment from the State to establish the UMBC Center for Cybersecurity, which integrates education and workforce partnerships with the research of faculty leaders in this dynamic field.

The State has tapped 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): The Maryland Technology Internship Program (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. In 2021, 92 organizations spanning 10 counties hosted 142 paid interns from 21 higher education institutions. Administered by UMBC and funded by the State of Maryland, the program offers financial assistance to technology-based businesses, as well as state and local agencies, to hire more interns.

The Maryland Center for Computing Education (MCEE): A collaboration with USM, (MCCE) expands access to high-quality Pre-Kindergarten-12 (P-12) computing education by strengthening educator skills and increasing the number of computer science teachers in elementary and secondary education. It also serves as a focal point for broader collaborative initiatives to increase the availability and quality of P-12 computing education across the state, including stakeholder meetings and partnerships; teacher certification efforts; standards and curriculum development; innovative pedagogical research and practices; training and awareness for administrators, students, and parents; and coordinating with related national efforts.

The Cybersecurity Workforce Accelerator Program that Senate Bill 753 would build on already established university-government-industry partnerships to achieve greater efficiency and effectiveness.

Again, we urge your support.

Oral Testimony - SB753 (1).pdf

Uploaded by: Annie Weinschenk

Position: FAV

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SB753
Labor and Employment - Workforce Development - Cybersecurity
ANNIE WEINSCHENK
ASSISTANT DIRECTOR, MARYLAND TECHNOLOGY INTERNSHIP PROGRAM
POSITION: FAVORABLE
March 15, 2022

Good afternoon Madam Chairperson, Vice Chair and Members of the Committee, thank you for the opportunity to speak in support of Senate Bill 753. I want to thank Senator Hester for putting this important bill forward and working so hard on this legislation.

My name is Annie Weinschenk and I have the privilege of administering the The Maryland Technology Internship Program (MTIP) on behalf of the state of Maryland. MTIP provides financial reimbursement in the form of matching funds to employers across the state of Maryland to increase the number of paid, technical internships and to keep technical talent in the state. SB753 would allocate increased funding to support paid technical internships in the realm of cybersecurity, data science, AI and machine learning.

Over the last three years, MTIP has supported nearly 800 interns at 250 organizations across the region. Each year, the demand for MTIP funds exceeds our current allocated budget. MTIP runs lean and efficiently, providing \$270,000 directly back to employers in matching intern funds each year. Cyber security organizations represent 40% of participating employers in the program. SB753 will increase students' exposure to careers, employers, systems, and networks that are rooted in Maryland, which help retain the student talent in-state for future careers.

You may be asking yourselves, why does a tech company need financial support in order to host interns. I would argue that many small businesses, start-ups and state and local agencies do not have the resources necessary to support internship programs compared to large scale tech focused companies. These firms do not have full-time campus recruiting personnel, may not be able to offer competitive pay, or possess “brand name” recognition with students. However, these organizations are able to provide experiences that are vital to student development and a skilled workforce.

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Increased MTIP funding will offset the growing workforce gaps in cybersecurity and support the state's diversity and inclusion efforts.

- The National Association of Colleges and Employers (NACE) analyzed data from its 2019 Student Survey Report and specifically looked at the internship experiences of nearly 4,000 seniors who graduated in spring of 2019.
 - NACE's research showed that Black students are overrepresented in unpaid internships, accounting for 7.3%.
 - Hispanic and Latino students in the same study were more likely than any other racial group to have had no internship by graduation.

The days of interns getting coffee or handling small, administrative tasks are over. The national average and competitive hourly rate for a bachelor's level intern is close to \$20 an hour. If we want to support our emerging companies and public service sectors with technical student talent then we need to compete with these wages. By expanding MTIP funding you will be supporting increased, paid, technical internships in Maryland.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. I urge you to vote favorable for SB753 and thank you for your time. I'd be happy to answer any questions about MTIP.

SB753 Written testimony.pdf

Uploaded by: Annie Weinschenk

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March 09, 2022

Maryland General Assembly
Senate Finance Committee
Miller Senate Office Building, 3 East Wing
11 Bladen St., Annapolis, MD 21401

CAREER CENTER

University of Maryland, Baltimore County
201 Math/Psychology Building
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RE: Letter of Support for SB753
Stance: Support

Madam Chairman, Vice Chair and Members of the Committee,

The Maryland Technology Internship Program (MTIP) is pleased to provide this letter in support of the SB753. MTIP provides financial reimbursement in the form of matching funds to employers across the state of Maryland to increase the number of paid, technical internships and to keep technical talent in the state.

- MTIP launched in 2018 and has financially supported more than 750 interns across the state of Maryland
- 85% of interns are working at small and mid sized organizations
- 92% of interns accepted employment in Maryland after graduation

The leading industry represented in the program is cybersecurity. By providing financial incentives to organizations in Maryland to hire more interns, MTIP is strengthening Maryland's workforce. SB753 will provide an additional \$500,000 in funding that will go directly to internship stipends. The Cybersecurity Workforce Accelerator legislation will advance the state's top priorities of education, discovery and innovation, workforce development and economic growth. Last year, the USM awarded nearly 44,000 degrees, almost 40 percent of them in STEM and 80 percent of those individuals in state students. Eight Students often stay in Maryland following graduation, contributing their wealth to our economy and their service to our communities.

This funding will advance equity in the state by increasing opportunities for paid internships. Paid internships provide key advantages for students seeking their first post-college position. Results from the National Association of Colleges and Employers (NACE's Student Survey) consistently found that paid interns receive more job offers than unpaid interns and more than those who haven't engaged in an internship. Continued research suggests that paid internships are disproportionately dispersed among the student population and that historically marginalized groups are underrepresented in paid internships, overrepresented in unpaid internships, and more likely to have not participated in any internship.



CAREER CENTER

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In fact, NACE analysis revealed that a larger portion of paid internships—the internships offering the best head start into a career—went to white students, male students, and non-first-generation college students. By providing students with paid, hands on experience at cyber firms in Maryland qualified students are more likely to stay in Maryland and help bridge the workforce gap in cyber security. According to Kolb's Experiential Learning Theory, Kolb perceives experiential education as a means for helping students make meaning of their classroom experiences and can spark new ideas, to simulate, and to work with practical applications.

MTIP fully supports The Cybersecurity Workforce Accelerator legislation to increase opportunities for all students across the region. We commit to continuing to administer MTI and growing the talent in the state of Maryland.

Christine Routzahn

Christine Routzahn
Director
Career Center
University of Maryland, Baltimore County

Annie Weinschenk

Annie Weinschenk
Assistant Director
Maryland Technology Internship Program

Brent Bemiller Oral Testimony - SB753 .docx.pdf

Uploaded by: Brent Bemiller

Position: FAV

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TESTIMONY PRESENTED TO THE
APPROPRIATIONS COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

BRENT BEMILLER
UNIVERSITY OF MARYLAND, BALTIMORE COUNTY (UMBC)

POSITION: FAVORABLE

March 16, 2022

Thank you madam chairperson and members of the committee for allowing me to testify today. I am here today to offer a student's point of view on why the committee should support SB753, the Cybersecurity Workforce Accelerator Program, which would expand the Maryland Technology Internship Program (MTIP).

I am a recent Information Systems graduate of the University of Maryland, Baltimore County where I had multiple internships and technical positions throughout my four years. One of which was with the Maryland Department of Information Technology and although I am not representing their views on this legislation, I am representing my experience as a student intern turned full-time employee at the Maryland IT Department. I was fortunate enough to intern for a semester at the department in the Office of Enterprise Architecture working on documentation projects that allow, specifically department executives, to see and understand the organization as a whole to more efficiently link strategy, business, and technology. The Maryland Department of IT receives matching funds through MTIP to support their internship program.

As an intern, I worked on projects which have had direct impact on various aspects of cyber security at the state level by allowing our security and infrastructure teams to better understand themselves. This experience has made me a more well-rounded individual at work and at home. Students all over Maryland need this kind of access to valuable, paid hands-on experiences like internships to be able to seamlessly transition from the classroom to the workforce. Internships provide students with applicable

FAVORABLE

experience which complements their in-classroom experience. There is a need for skilled and talented graduates in Maryland. It is no secret that cyber threats infiltrate all industries and can be extremely costly, not only to our economy, but potentially to our critical infrastructure as well. The Maryland Technology Internship Program has allowed small tech companies as well as state agencies to pay competitive hourly rates and attract high quality students to foster the next generation of security and IT experts.

Expanding the Maryland Technology Internship Program would allow more tech firms and state agencies to expand their internship programs and pay more competitively. This means more young people like myself would have more opportunities to have their lives and careers changed in a truly meaningful way. As a student who has been through the course of programs like this, I urge a favorable vote. Thank you again for the opportunity to testify.

Brent Bemiller Written Testimony - SB753 .docx.pdf

Uploaded by: Brent Bemiller

Position: FAV

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TESTIMONY PRESENTED TO THE
APPROPRIATIONS COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

BRENT BEMILLER
UNIVERSITY OF MARYLAND, BALTIMORE COUNTY (UMBC)

POSITION: FAVORABLE

March 16, 2022

I am writing today to support SB753, the Cybersecurity Workforce Accelerator Program, which would expand the Maryland Technology Internship Program. As a recent Information Systems graduate of the University of Maryland, Baltimore County (UMBC), I have been fortunate enough to intern at an MTIP supported organization, the Maryland Department of IT (DoIT). At DoIT I interned for a semester where I mainly worked on documentation projects that go to help the organization executives and department leaders better understand themselves. My main function was to gather information on business and IT resources and transform them into an easily-digestible format for strategic purposes. I was offered a full time position with DMI which is a state authorized contractor for DoIT.

Students need access to valuable hands-on experiences like internships to be well-rounded, competitive professionals post graduation. Internships provide students with valuable and applicable experiences which compliment their in-classroom experience and help transition them from the classroom to the workforce. My own personal experiences have shown me how important internships truly are. I would not be in the position I am today without having had those opportunities.

As a recent graduate, I understand the urgent need for a skilled technical workforce. As we have witnessed over the past few years, cybersecurity remains a constant threat to every industry, having the potential to disrupt our economy and even our critical infrastructure. I know that by having these internship experiences, I was able to contribute in a meaningful way to our workforce and the citizens of Maryland. The Maryland Technology Internship Program has allowed small tech companies and state

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agencies to pay competitive hourly rates and gain access to talented individuals who will lead the next generation of security and IT professionals.

Expanding the Maryland Technology Internship Program would allow more security and technology firms and agencies to expand their internship programs, pay more competitively, and provide lasting career experiences for many more young people like myself. As a student who has gone through internship programs such as this, I urge a favorable report. Thank you for the opportunity to testify.

SB 753_Donna Ruginski_fav.pdf

Uploaded by: Donna Ruginski

Position: FAV

POSITION: FAVORABLE

SENATE FINANCE COMMITTEE

Senate Bill 753

Labor and Employment - Workforce Development - Cybersecurity

Written Testimony
Submitted by

Donna Ruginski
Executive Director for Cybersecurity Initiatives
UMBC

March 17, 2022

Chair Kelley, Vice Chair Feldman, 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.

SB753 - The Cyber Workforce Accelerator Act of 202

Uploaded by: Katie Fry Hester

Position: FAV

KATIE FRY HESTER
Legislative District 9
Carroll and Howard Counties

Education, Health, and
Environmental Affairs Committee

Chair, Joint Committee on
Cybersecurity, Information Technology
and Biotechnology



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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Testimony in Support of SB753 - The Cyber Workforce Accelerator (CWA) Act of 2022

3/17/2021

Chair Kelley, Vice-Chair Feldman, and members of the Finance Committee, thank you for your consideration of SB753 - The Cyber Workforce Accelerator Act of 2022 - which will improve and expand our state's workforce development initiatives for the cybersecurity sector.

Our state leads the nation when it comes to cybersecurity innovation. We are home to the National Security Agency, the Department of Defense's Cyber Crime Center, and the Johns Hopkins Applied Physics lab, among other rapidly growing public and private cybersecurity employers.

However, our state still has 21,000 open jobs in this field, and with a higher unemployment rate than nationwide, growing the pool of available workers to fill the needs of this industry will be critical to our state's future economic growth. When I was first asked to chair the Maryland Cybersecurity Council Subcommittee on Workforce Development, I requested a list of all the state programs we have related to workforce development in this industry. The answer is: we have a lot! Some are better than others, but what is missing, colleagues, is something to tie all of these programs together - something to make sure they're supporting a talent pipeline toward jobs that are open, that programs are working effectively, and that students know about them.

SB753 achieves this goal by creating a Cyber Workforce Accelerator to – as the name implies – accelerate the speed of our workforce development. As you will hear shortly, the accelerator will leverage UMBC's experience in this space to work with industry to identify specific, real-time needs of industry. Based on this work, the Accelerator can refine current cyber workforce programs and to develop new programs to fill any gaps.

The existing programs that will receive additional funding with this legislation are:

- 1.) The Maryland Employment Advancement Right Now (EARN) Programs for cybersecurity;

- 2.) The Cyber Warrior Diversity Program, and
- 3.) The current Maryland Technology Internship Program

The new programs created by this bill are:

- 4.) A teacher externship program - which will enable teachers to have paid externships in cybersecurity industry for professional development
- 5.) A K-12 Cybersecurity Education Grant Program - which provides funding for any LEA that wants to adopt a course or class on cybersecurity and needs funds for curriculum development, and
- 6.) A new Cybersecurity Workforce Accelerator Fund - which will support innovative approaches to meet cyber workforce that are not being covered in any of the areas already mentioned.

Finally, I want to mention that Maryland has been chosen as one of the finalists to apply for an American Rescue Plan EDA Grant. Any money we put into these cybersecurity programs can serve as a local match for federal funds and I'd be happy to send committee members a project overview.

In closing, by establishing the Cyber Workforce Accelerator to strategically manage the connection between industry and our state workforce programs, we can increase the impact and effectiveness and make more progress towards achieving our state's short- and long-term goals. **For these reasons, I respectfully request a favorable report on SB753.**

Sincerely,



Senator Katie Fry Hester
Carroll and Howard Counties

SB753 Favorable Testimony from Washington Software

Uploaded by: Michael Chung

Position: FAV



March 16, 2022

Maryland General Assembly
Appropriations Committee &
Ways and Means Committee
House Office Building, Room 121
Annapolis, Maryland 21401

RE: Letter of Support for SB753 Stance: Support

Washington Software, Inc. (WSI) is pleased to provide this letter in support of the SB753. The Program will support the successful and current growth of WSI and workforce development of the Cybersecurity students. Also, the proposed tax credit would encourage us to hire more interns which usually becomes long-term employees of WSI. They will also find a full-time job easily after they graduate from the practical knowledge and leading-edge technology they would learn in our projects.

Three Interns from the Maryland Technology Internship Program have worked for WSI in the past. They all have solid technology background. They have helped us on product research, technology research, proof-of-concept prototype, production support, Cybersecurity compliance assessment, documentation, and mitigation. Their services are critical in lowering our cost, lowering our pricing to our small business customers, and shortening our training and response time, which makes WSI more competitive to companies in Northern Virginia.

WSI is unique that we have IT and software development projects using different technology with different Cybersecurity compliance requirements. That means Cybersecurity students will learn the IT and software development skills as well as practical Cybersecurity compliance experience. They will understand how to communicate with other IT guys in their jobs in the future. Our interns will have an explosion of technical keywords in their resumes after working for us which means it is very easy for them to find a high pay job afterwards.

Feel free to contact me at chung@wasoftware.com or (301) 442-9269 if you have questions about our successful experience with the internship program.

Michael Chung
President
Washington Software, Inc.

EAGB SB753 support.pdf

Uploaded by: Michele Whelley

Position: FAV



TESTIMONY PRESENTED TO THE
FINANCE COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

MICHELE L. WHELLEY
PRESIDENT & CEO
ECONOMIC ALLIANCE OF GREATER BALTIMORE

POSITION: FAVORABLE

March 16, 2022

Chairwoman Kelley, Vice Chairman Feldman, and Members of this Committee, I am submitting this testimony on behalf of the board of directors of the Economic Alliance of Greater Baltimore (EAGB) to voice our strong support for Senate Bill 753.

The Cyber Workforce Accelerator will leverage existing infrastructure in the Departments of Commerce, Education and Labor and will build on current educational programs and workforce training assets in the state. This Bill will provide the necessary resources to support the urgent and growing cybersecurity needs across Maryland.

EAGB is a regional business organization dedicated to marketing the economic assets of the Greater Baltimore region and elevating the Region to a location of choice for employment, investment, and business location. We work in collaboration with our board members and other stakeholders to help catalyze economic opportunities to attract the talent and skilled workers needed to support the growth of our primary industry sectors as well as to create pathways that enable residents throughout the region to be able to take advantage of these opportunities.

Cybersecurity is a major growth industry sector for all of our member jurisdictions – Baltimore City and Anne Arundel, Howard, Cecil, Carroll, Harford and Baltimore Counties. Without a robust pipeline of educational, training and apprenticeship programs, there will continue to be a dearth of workers needed to support this growth. Currently, on any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only companies specializing in cybersecurity but also cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions.



The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, residents in the Greater Baltimore region and throughout Maryland will be trained for good paying jobs with high growth potential.

For the reasons detailed above, EAGB strongly supports and urges a favorable report on SB753. Thank you again for the opportunity to provide written testimony.

Cc: EAGB Board of Directors (list attached)



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1200 Steuart Street, Unit C1B, Baltimore, MD 21230



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U.S. House of Representatives: Congressman Dutch Ruppersberger – Director Emeritus

Written Testimony - SB753 .pdf

Uploaded by: Pramod Raheja

Position: FAV

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TESTIMONY PRESENTED TO THE
APPROPRIATIONS COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

PRAMOD RAHEJA
AIRGILITY, INC.

POSITION: FAVORABLE

March 16, 2022

Chairwoman McIntosh, Vice Chairman Chang, and Members of this Committee, thank you for the opportunity to submit testimony in support of House Bill 1334.

The Cyber Workforce Accelerator will leverage existing infrastructure in the Departments of Commerce, Education and Labor and will build on current educational programs and workforce training assets in the state. This Bill will provide the necessary resources to support the urgent and growing cybersecurity needs across Maryland.

On any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only our industry, but cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions. MTIP allows us to give opportunities to students across a range of disciplines, these include Cyber, aerospace, mechanical, electrical, robotics, AI & computer engineering, computer science and sales enablement and digital marketing. MTIP has been an amazing direct pathway for a technology-based business such as ours to recruit student interns with strong skills in our innovation focused world (and keep them in MD!). After three years of working with MTIP, I am convinced that the funding that MTIP provides is a competitive advantage for the state.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, you will train Marylanders for good paying jobs with high growth potential. Our organization urges a favorable report. Thank you again for the opportunity to testify.

Sincerely,



Pramod B Raheja
CEO, Airgility, Inc.
pramod@airgility.co
703-798-7850

TESTIMONY PRESENTED TO THE APPROPRIATIONS COMMITTEE

Uploaded by: Rosy Canfield

Position: FAV

TESTIMONY PRESENTED TO THE
APPROPRIATIONS COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT – CYBERSECURITY

CANFIELD CONSULTING GROUP, LLC.
D/B/A CANFIELD CYBERDEFENSE GROUP

POSITION: FAVORABLE

March 16, 2022

Chairwoman McIntosh, Vice Chairman Chang, and Members of this Committee thank you for the opportunity to submit testimony in support of House Bill 1334.

The Cyber Workforce Accelerator will build on existing educational programs and workforce training assets in the state, leveraging existing infrastructure in the Departments of Commerce, Education, and Labor. This bill will provide the resources needed to address Maryland's urgent and growing cybersecurity challenges.

On any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only our industry but cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions.

One of the challenges we have faced is that the length of time for the intern training is too short for meaningful work contributions as we believe interns should have a deeper knowledge of every aspect of work to be able to compete and provide solutions to real-life challenges.

Through the MTIP program, Canfield Consulting Group. has been able to gain the talent of some of the best and brightest students and graduates in Maryland who have provided an immediate and satisfying impact on our business performance.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to building a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, you will train Marylanders for good-paying jobs with high growth potential. Our organization urges a favorable report. Thank you again for the opportunity to testify.

Written Testimony - SB753.pdf

Uploaded by: Sam Ely

Position: FAV

FAVORABLE

TESTIMONY PRESENTED TO THE
APPROPRIATIONS COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

SAM ELY
PERCIVAL ENGINEERING

POSITION: FAVORABLE

March 16, 2022

Chairwoman McIntosh, Vice Chairman Chang, and Members of this Committee, thank you for the opportunity to submit testimony in support of House Bill 1334.

The Cyber Workforce Accelerator will leverage existing infrastructure in the Departments of Commerce, Education and Labor and will build on current educational programs and workforce training assets in the state. This Bill will provide the necessary resources to support the urgent and growing cybersecurity needs across Maryland.

On any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only our industry, but cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions.

As our company continues to expand its position in cyber security – supporting defense and national security markets – we rely heavily on MTIP for hiring Maryland college students as well as recently transitioning military members for both internships and full-time positions. For students that join us as interns, we often use the duration between internship and graduation to setup the appropriate security clearances – an essential qualification to fully support our efforts. For transitioning military members, we rely on MTIP to support our focus on recruiting, employing, and retaining our nation's veterans – which represent roughly 35% of Percival's workforce. MTIP funding ensures that our company can continue to prioritize hiring Maryland candidates and enables us to build a sustainable staffing pipeline.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, you will train Marylanders for good paying jobs with high growth potential. Our organization urges a favorable report. Thank you again for the opportunity to testify.

SB 753 Workforce Dev Cyber MICUA FAV.pdf

Uploaded by: Sara Fidler

Position: FAV



Maryland Independent College
and University Association

Written Support

Senate Finance and Budget and Taxation Committees

Senate Bill 753 (Hester) Labor and Employment – Workforce Development - Cybersecurity

Sara C. Fidler, President

sfidler@micua.org

March 17, 2022

On behalf of Maryland's independent colleges and universities and the 58,000 students we serve, we thank you for the opportunity to provide written testimony to support [*Senate Bill 753 \(Hester\) Labor and Employment – Workforce Development – Cybersecurity*](#). This bill establishes the Cybersecurity Workforce Accelerator Program to increase the number of individuals entering the cybersecurity workforce, expand, market, and increase the efficiency of cybersecurity workforce programs in the State, invest in new and innovative cybersecurity education programs, and provide coordination between educational institutions to prepare students. The bill also creates a Fund to be used for administration of the Accelerator Program and to provide grants to educational institutions to operate cybersecurity workforce development programs.

The Cybersecurity Workforce Accelerator Program will help the State encourage, develop, and retain top talent in the cybersecurity fields. According to the most recent data from the US Bureau of Labor Statistics, the outlook for the job growth rate for security analysts is 33% through 2030 in the US. Providing grant funding to educational institutions for their cybersecurity programs will open pathways for more students to pursue employment in this critical need area.

Eleven MICUA institutions offer programs in computer science and five offer specialized programs in cybersecurity, including upper-division certificates, bachelor's of science degrees, post-baccalaureate certificates, master's degrees, post-master's certificates, and doctoral degrees. The MICUA programs include Cybersecurity, Cyber Analytics, and Cyberpsychology. Capitol Technology University received the prestigious SC Media 2020 Award for Best Cybersecurity Higher Education Program in America. During the period of 2016-2020, MICUA institutions awarded over 600 degrees in cybersecurity. Our institutions have an 82% undergraduate retention rate, and 87% of first-time full-time freshman who first enroll at a MICUA institution graduate from that same MICUA institution, or a transfer institution within six years.

We appreciate the sponsor's vision and the General Assembly's ongoing support for Cybersecurity workforce development. MICUA students and the entire State of Maryland will benefit from these initiatives and investments, as they graduate from our institutions and join the State's talent pipeline in cybersecurity and other STEM fields.

For these reasons, MICUA urges a favorable Committee report for Senate Bill 753.

Baltimore Cyber SB 753 Written Testimony 3 16 2022

Uploaded by: Steve Spector

Position: FAV

TESTIMONY PRESENTED TO THE
FINANCE COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

BRUCE SPECTOR

BALTIMORE CYBER RANGE, LLC

POSITION: FAVORABLE

March 16, 2022

Chairwoman Kelley, Vice Chairman Feldman, and Members of this Committee, thank you for the opportunity to submit testimony in support of Senate Bill 753.

The Cyber Workforce Accelerator will leverage existing infrastructure in the Departments of Commerce, Education and Labor and will build on current educational programs and workforce training assets in the state. This Bill will provide the necessary resources to support the urgent and growing cybersecurity needs across Maryland.

On any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only our industry, but cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions. Baltimore Cyber and its Strategic Industry Partnership (SIP) have been training Cyber security and IT (Information Technology) skills to unemployed and underemployed Maryland residents for the past 5 years under the EARN Program. We have seen first-hand the dire need for more trained entry level IT and Cyber security workers. A significant challenge has been to keep the trainees on schedule during the duration of the 6-month program. However, those who do complete stand an excellent chance of obtaining a career in IT or Cybersecurity at a compelling starting wage with good advancement potential.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, you will train Marylanders for good paying jobs with high growth potential. Our organization urges a favorable report. Thank you again for the opportunity to testify.

Ey3 Technologies Written Testimony - SB 753.docx.p

Uploaded by: Terry Bazemore Jr.

Position: FAV

FAVORABLE

TESTIMONY PRESENTED TO THE
FINANCE COMMITTEE

SENATE BILL 753

LABOR AND EMPLOYMENT - WORKFORCE DEVELOPMENT - CYBERSECURITY

TERRY BAZEMORE JR
EY3 TECHNOLOGIES

POSITION: FAVORABLE

March 16, 2022

Chairwoman Kelley, Vice Chairman Feldman, and Members of this Committee, thank you for the opportunity to submit testimony in support of Senate Bill 753.

The Cyber Workforce Accelerator will leverage existing infrastructure in the Departments of Commerce, Education and Labor and will build on current educational programs and workforce training assets in the state. This Bill will provide the necessary resources to support the urgent and growing cybersecurity needs across Maryland.

On any given day, there are more than 22,000 unfilled cybersecurity jobs in Maryland, affecting not only our industry, but cybersecurity functions that are embedded in other industries. These vacancies create security vulnerabilities in our critical infrastructure and essential services, but we don't have applicant pools with the right skills to fill our open positions. As an economically disadvantaged woman owned small business we are often in the position of searching for qualified talent but often finding individuals that do not meet the current industry standards or specific and very restrictive job requirements. This leads to frustration on both sides of the table, the individuals that are looking for employment are discouraged after repeatedly being denied opportunities, and small businesses are left with unfilled positions which can prove detrimental to the growth and life of the business.

The Cybersecurity Workforce Accelerator would provide an infusion of resources to impactful training programs and will help remove barriers to build a skilled and diverse cybersecurity talent pipeline. By supporting and investing in this Bill and the Cyber Workforce Accelerator, you will train Marylanders for good paying jobs with high growth potential. Our organization urges a favorable report. Thank you again for the opportunity to testify.

SB 753 Workforce Development-Cybersecurity (Hester

Uploaded by: Barbara Wilkins

Position: INFO



Maryland

DEPARTMENT OF BUDGET
AND MANAGEMENT

LARRY HOGAN
Governor

BOYD K. RUTHERFORD
Lieutenant Governor

DAVID R. BRINKLEY
Secretary

MARC L. NICOLE
Deputy Secretary

SENATE BILL 753 Labor and Employment - Workforce Development - Cybersecurity (Hester)

STATEMENT OF INFORMATION

DATE: March 17, 2022

COMMITTEE: Senate Finance

SUMMARY OF BILL: SB 753 creates a Cybersecurity Workforce Accelerator Program at University of Maryland, Baltimore County (UMBC) to increase the cybersecurity workforce in the State, develop a statewide approach to cybersecurity workforce development, improve the efficiency of related programs in the State, invest in new and innovative cybersecurity education programs, and provide coordination between higher education and K-12 institutions to prepare students for cybersecurity careers; expands the Maryland Technology Internship Program at UMBC to include local governments; and creates a Cybersecurity Workforce Accelerator Fund to administer the program and provide grants for cybersecurity workforce development programs. The bill mandates annual appropriations in the amounts of: \$2 million annually for the Cybersecurity Workforce Accelerator Fund at UMBC in FY 2024 and FY 2025; \$1 million to the Department of Labor's Maryland Employment Advancement Right Now program for cybersecurity programs and administrative support; \$1 million to the Department of Labor's Maryland Apprenticeship and Training Program for cybersecurity workforce development; \$450,000 to UMBC for the Accelerator Program, including \$250,000 for managing the development of individuals who can meet cybersecurity workforce needs; \$2.5 million for the Cyber Warrior Diversity Program in the Maryland Higher Education Commission (MHEC); \$500,000 for summer externships for K-12 teachers at cybersecurity companies; \$1 million per year for the University System of Maryland to develop cyber range scenarios based on industry demand; \$500,000 to invest in educational pathways in cybersecurity that meet the State Board of Education's college and career readiness standard; and \$500,000 to expand the Maryland Technology Internship program at UMBC. Funding is supplemental to funding that otherwise would be appropriated.

EXPLANATION: The Department of Budget and Management's focus is not on the underlying policy proposal being advanced by the legislation, but rather on the aggregate appropriations in the amount of \$9.45 million in FY 2024 and FY 2025, and \$7.45 million in FY 2026 and each fiscal year thereafter, which will impact the FY 2024 budget and subsequent budgets. These mandated appropriation amounts are supplemental to funding already provided.

DBM has the responsibility of submitting a balanced budget to the General Assembly annually, which will require spending allocations for FY 2024 to be within the official revenues estimates approved by the Board of Revenue Estimates in December 2022.

The FY 2023 Budget allocates nearly \$16 million for these purposes, including: \$1 million over two years to establish the Maryland Institute for Innovative Computing at UMBC to accelerate innovation in computing

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(cybersecurity, AI, and data science); \$3 million for a new Center for Cybersecurity at UMBC; \$1.2 million to UMBC for economic development activities under the MPowering mandate [also, \$1.6 million in FY 2024 and \$2.0 million in FY 2025 and beyond]; \$3.8 million for the Cyber EARN program; \$4.4 million for the Maryland Apprenticeship Training Program; \$2.5 million for the Cyber Warrior Diversity Program in MHEC; and \$350,000 for the Maryland Technology Internship program at UMBC.

Changes to the Maryland Constitution in 2020 provide the General Assembly with additional budgetary authority, beginning in the 2023 Session, to realign total spending by increasing and adding items to appropriations in the budget submitted by the Governor. The legislature's new budgetary power diminishes, if not negates, the need for mandated appropriation bills.

Fully funding the implementation of the Blueprint for Maryland's Future (Kirwan) will require fiscal discipline in the years ahead, if the State is to maintain the current projected structural budget surpluses. Mandated spending increases need to be reevaluated within the context of this education funding priority and the Governor's tax relief proposals.

Economic conditions remain precarious as a result of COVID-19. High rates of inflation and workforce shortages may be short lived or persist, thereby impacting the Maryland economy. While current budget forecasts project structural surpluses, the impact of the ongoing COVID-19 pandemic continues to present a significant budgetary vulnerability. The Department continues to urge the General Assembly to focus on maintaining the structural budget surplus.

**For additional information, contact Barbara Wilkins at
(410) 260-6371 or barbara.wilkins1@maryland.gov**