

Department of Legislative Services
 Maryland General Assembly
 2023 Session

FISCAL AND POLICY NOTE
 Third Reader - Revised

House Bill 1189

(Delegate Forbes, *et al.*)

Health and Government Operations and
 Economic Matters

Rules

Economic Development - Cybersecurity - Cyber Maryland Program

This bill establishes a Cyber Maryland Program in the Maryland Technology Development Corporation (TEDCO) to create a talent pipeline in cybersecurity, serve as a hub for State workforce development programs in cybersecurity, and generally coordinate cybersecurity and research and innovation in the State, among other things. The bill also creates the Cyber Maryland Fund as a special, nonlapsing fund to be administered by the program. The bill establishes and specifies the membership of the Cyber Maryland Board to (1) provide input on the strategic plan; (2) assist the executive director of the program in specified ways; and (3) coordinate with the Maryland Department of Labor (MDL) and the Department of Commerce. Beginning December 1, 2026, the program in conjunction with TEDCO must submit an annual report on the operation and performance of the program to the Governor and the General Assembly. Beginning in fiscal 2025, the Governor must include an appropriation in the annual budget bill sufficient funds to cover specified staff for the program and may include an additional appropriation of \$250,000 for the fund. **The bill takes effect July 1, 2023.**

Fiscal Summary

State Effect: General fund expenditures increase by \$690,000 in FY 2024, in accordance with budgeted amounts and under the assumptions discussed below; future years reflect elimination of one-time costs and inflation. Special fund revenues and expenditures for the Cyber Maryland Fund increase correspondingly as funds are received and used for authorized purposes. Board members must serve without compensation, and any expense reimbursements are assumed to be minimal and absorbable within existing resources. **This bill establishes a mandated appropriation beginning in FY 2025.**

(in dollars)	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
SF Revenue	\$690,000	\$669,300	\$681,000	\$693,100	\$705,400
GF Expenditure	\$690,000	\$669,300	\$681,000	\$693,100	\$705,400
SF Expenditure	\$690,000	\$669,300	\$681,000	\$693,100	\$705,400
Net Effect	(\$690,000)	(\$669,300)	(\$681,000)	(\$693,100)	(\$705,400)

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: Beginning in FY 2024, revenues and expenditures may increase for local governments as a result of grants from the Maryland Cyber Fund, as discussed below.

Small Business Effect: Potential meaningful.

Analysis

Bill Summary:

Cyber Maryland Program

The purposes of the Cyber Maryland Program are to:

- create and execute a talent pipeline that materially reduces workforce vacancies by July 1, 2026;
- serve as a one-stop shop for employers seeking to leverage cyber workforce development programs offered by the State and its partners;
- inform cybersecurity training and education programs operated by public or private entities with industry-driven needs;
- build the most advanced local and State information technology (IT) workforce in the nation, which, to the maximum extent possible, reflects the racial, gender, ethnic, and geographic diversity of the State;
- coordinate and accelerate cybersecurity research and innovation in the State; and
- support the efforts of the Department of Information Technology to improve the State government's cybersecurity posture, including State agencies, local government units, and critical infrastructure.

The program must conduct ongoing research by collaborating with specified entities to collect and analyze real-time industry data to identify cybersecurity workforce needs as described in the U.S. Chamber of Commerce Talent Pipeline Management Approach. The program must use the results of its research to (1) increase the effectiveness of existing State cybersecurity workforce programs for employers in the State; (2) facilitate partnerships for new training and education programs to address the workforce needs identified in the program's research; and (3) develop a statewide strategic plan for cybersecurity workforce development.

The program must ensure that the outcomes of the program are inclusive and, to the maximum extent possible, reflect the racial, gender, ethnic, and geographic diversity of the State.

The program's executive director must be appointed by and serve at the pleasure of the Chief Executive Officer (CEO) of TEDCO and must have relevant qualifications and experience with the activities and purposes of the program.

The bill expresses legislative intent that the program immediately consider the Cybersecurity Pathways Across Maryland as an immediate, proven, and scalable mechanism to fill jobs. It further expresses intent that the program, in implementing the strategic plan, consider the role and scale of specified programs, the development of cyber range scenarios, and the provision of cyber range training through appropriate partners.

Cyber Maryland Fund

The Cyber Maryland Fund consists of money appropriated in the State budget and any money from any other source accepted for the benefit of the fund. The Cyber Maryland Fund exists to facilitate the Cyber Maryland Program's achievement of the program's specified purposes and support innovative approaches to meeting cybersecurity workforce needs. Funds may only be used for administering the program and providing grants to elementary and secondary schools, institutions of higher education, including community colleges, for-profit corporations, and nonprofit organizations to operate cybersecurity programs based on the strategic plan of the Cyber Maryland Program. Expenditures from the fund may be made only in accordance with the State budget.

In fiscal 2025 and annually thereafter, and subject to the availability of funding, \$250,000 of the fund must be used for implementing the U.S. Chamber of Commerce Talent Pipeline Management Approach.

The Governor must include an appropriation in an amount sufficient for hiring individuals to conduct the duties of the Cyber Maryland Program, including an executive director and at least one administrator.

Cyber Maryland Board

The Cyber Maryland Board must generally provide advice and support to the Cyber Maryland Program, provide input on its strategic plan, assist the executive director of the program in specified ways, and coordinate with MDL and Commerce.

The board chair may not be a State employee or the CEO of TEDCO. A member of the board may not receive compensation as a member of the board but is entitled to reimbursement for expenses. The Governor may remove an appointed member of the board for incompetence, misconduct, or failure to perform the duties of the position.

For fiscal 2025 and each year thereafter, funds from the Dedicated Purpose Account (DPA) may be transferred to implement the bill.

Cyber Warrior Diversity Program

By July 1, 2024, and each year thereafter, the Maryland Higher Education Commission (MHEC), in consultation with the Cybersecurity Association of Maryland, Inc., must, if applicable, expand the Cyber Warrior Diversity Program (CWDP) to accommodate any changes in certification trends. At the end of each fiscal year, any unexpended funds allocated by MHEC under the program must revert to MHEC to be allocated for the upcoming fiscal year and be used to supplement, but not supplant, MHEC required appropriations for the upcoming year. The bill repeals the required methodology for MHEC's annual allocation of funds – specifically on a *pro-rata* basis according to the most recent enrollment data – to Baltimore City Community College (BCCC), Bowie State University (BSU), Coppin State University (CSU), Morgan State University (MSU), the University of Maryland Eastern Shore (UMES), and the University of Maryland Baltimore County (UMBC) Training Centers.

Current Law: Chapter 683 of 2021 codified the Center for Cybersecurity at UMBC and required the Governor to appropriate \$3.0 million for the center annually beginning in fiscal 2023. The Center for Cybersecurity is housed within the College of Engineering and Information Technology at UMBC. The center provides interdisciplinary academic and research leadership, partnership, innovation, and outreach by streamlining academic research, workforce development, and technology incubation activities related to cybersecurity. By October 1 each year, the center must report on the use of State funds in the field of cybersecurity.

Division of Workforce Development and Adult Learning

The Division of Workforce Development and Adult Learning (DWDAL) in MDL oversees the Maryland Employment Advancement Right Now (EARN) program and State apprenticeship programs.

The EARN program was established in 2013 to create industry-led partnerships to advance the skills of the State's workforce, grow the State's economy, and increase sustainable employment for working families. Specifically, the program provides general fund grants on a competitive basis for industry partnerships, workforce training programs, and job-readiness and skills training. Since fiscal 2018, EARN has received annual funding specifically for cyber and IT. DWDAL currently funds 17 active cyber/IT Strategic Industry Partnerships across the State.

Cyber Warrior Diversity Program

CWDPs are located at BCCC, BSU, CSU, MSU, UMES, and UMBC Training Centers to train students in computer networking and cybersecurity, including training to achieve specified CompTIA certifications. For fiscal 2020, and each fiscal year thereafter, the Governor must include an annual appropriation of \$2.5 million for MHEC to provide grants to all of these institutions for their CWDPs. MHEC must annually allocate funds to those institutions on a *pro-rata* basis according to the most recent enrollment data for each institution's CWDP as reported to the commission. Further, grants must be in the amount of at least \$10,000 per student at BCCC, BSU, CSU, SU, and UMES and \$500 per student at UMBC Training Centers. This funding must supplement, but not supplant, any funds that would otherwise be provided for each institution.

Career and Technical Education Committee

Chapter 36 of 2021 (Blueprint for Maryland's Future – Implementation) created the Career and Technical Education (CTE) Committee as a unit within the Governor's Workforce Development Board. The purpose of the committee is to build an integrated, globally competitive framework for providing CTE to Maryland students in public schools, postsecondary institutions, and the workforce. One of Maryland's CTE programs of study is IT, with cybersecurity being an increasingly important part of IT programs.

Maryland Technology Development Corporation

TEDCO is an independent entity established by the Maryland General Assembly in 1998 to facilitate the creation of technology companies and encourage collaboration between these emerging businesses and federal and State research laboratories. TEDCO also aims to promote new research activity and investments that lead to business development in Maryland. For further information on TEDCO, see the **Appendix – Maryland Technology Development Corporation**.

State Fiscal Effect:

Cyber Maryland Program

The bill establishes a mandated appropriation beginning in fiscal 2025 for an amount sufficient for hiring individuals to conduct the duties of the Cyber Maryland Program, including an executive director and at least one administrator. The bill also authorizes but does not require (1) the Governor to include \$250,000 in the annual budget bill beginning in fiscal 2025 that, subject to the availability of funding, must be used for implementing the U.S. Chamber of Commerce Talent Pipeline Management Approach and (2) funds from DPA to be transferred by budget amendment to implement the bill beginning in fiscal 2025.

The fiscal 2024 budget as passed by the General Assembly includes \$690,000 in general funds appropriated to TEDCO for the purpose of implementing the Cyber Maryland Program, including the addition of two staff, contingent on enactment of this bill or its cross file (House Bill 1189 or Senate Bill 801); \$250,000 of the budgeted funds must be used for implementing the U.S. Chamber of Commerce Talent Pipeline Management Approach. In addition to the budgeted amount for fiscal 2024, this estimate assumes that sufficient general funds are provided each year thereafter to cover TEDCO's full administrative expenses, which include staff, IT, and other overhead costs.

The fiscal 2024 budgeted amount is more than sufficient to cover TEDCO's estimated expenses of \$688,000 in the first year of the program. This total includes \$350,000 for two staff and related benefits; \$40,000 for an online portal for employers seeking to leverage workforce development programs for the cybersecurity workforce; \$250,000 for grants under the Talent Pipeline Management approach (five annually at \$50,000 each); and the remaining \$48,000 for marketing, IT, finance, and overhead costs. Annual costs are similar through fiscal 2028 as one-time expenses cease and salaries increase. TEDCO employees are not State employees.

As the bill effectuates the contingent appropriation, general fund expenditures increase by \$690,000 in fiscal 2024. General fund expenditures are assumed to increase by \$669,300 to \$705,400 annually from fiscal 2025 through 2028 to provide sufficient funding for the program in the out-years. Sufficient funds for staffing are mandated beginning in fiscal 2025, and this analysis assumes continued annual discretionary appropriations of \$250,000 to implement the Talent Pipeline Management approach beginning in fiscal 2025. Special fund revenues and expenditures for the Cyber Maryland Fund increase correspondingly as funds are received and used for authorized purposes.

To the extent DPA funds are transferred via budget amendment in any year beginning in fiscal 2025, the effect on general fund expenditures is less. There is currently \$152 million in DPA reserved for cybersecurity-related purposes.

Higher education revenues increase to the extent that public institutions of higher education receive grant funding under the program.

Cyber Warrior Diversity Program

The fiscal 2024 budget as passed by the General Assembly includes \$2.5 million for the program. The bill allows any unexpended funds allocated by MHEC at year end to revert to the commission for reallocation the following year. Any such impact has not been accounted for in this analysis.

MHEC advises it currently employs a multi-step process to calculate the allocations for CWDP funds. MHEC first calculates an initial amount: \$10,000 per student, up to 47 students per institution. The UMBC Training Center is allocated \$500 per student across all institutions, up to \$120,000. Then, any unused funds (due to an institution reporting fewer than 47 students) are redistributed to the institutions with enrollment (except the UMBC Training Centers) on a *pro-rata* basis. In recent years, institutions have returned unused allocated funds primarily due to the COVID-19 pandemic. Institutions that returned funds indicated that they did not use all of the funds due to changes in enrollment and unexpected shifts in institutional demands related to the pandemic. To the extent institutions utilize all allocated funds in future years, the provision in the bill has no effect.

Local Fiscal Effect: Revenues and expenditures may increase beginning in fiscal 2024 to the extent that local governments receive grants from the Cyber Maryland Program Fund as called for in the strategic plan for new cybersecurity-related programs in local school systems or locally funded community colleges. The exact scale of the impact depends on the types of programming called for in the strategic plan and the funding decisions of the program and its board.

Small Business Effect: Small cybersecurity companies, or small businesses that have a need for cybersecurity services, may benefit from increased coordination by State entities regarding cybersecurity workforce development and from a potentially larger cybersecurity workforce. Small businesses may also benefit from the expansion of the MDL program. The bill may bolster a more skilled and prepared cybersecurity workforce to meet the staffing demands of small businesses. Finally, small businesses may benefit from any additional funding received for cybersecurity programs as part of a grant from the program fund.

Additional Information

Prior Introductions: Similar legislation has been introduced within the last three years. See SB 753 of 2022.

Designated Cross File: SB 801 (Senators Hester and Jennings) - Finance.

Information Source(s): Department of Information Technology; Maryland Technology Development Corporation; Department of Commerce; Maryland Higher Education Commission; Baltimore City Community College; University System of Maryland; Morgan State University; Department of Budget and Management; Maryland Department of Labor; Department of Veterans Affairs; Department of Legislative Services

Fiscal Note History:
km/mcr

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Appendix – Maryland Technology Development Corporation

The Maryland Technology Development Corporation (TEDCO) is an independent entity established by the Maryland General Assembly in 1998 to enhance the transfer of technology from universities and federal laboratories to the private sector and foster the growth of companies in critical or high-growth sectors. TEDCO investments must meet statutory eligibility criteria that generally require a business to have and subsequently maintain a presence in the State. TEDCO programs typically assist companies based on a company's stage of development: from early stage and technology transfer to growth stage.

TEDCO's purview and funding has expanded in recent years as legacy programs were transferred from the Department of Commerce and new programs were established directly within TEDCO. The Maryland Venture Fund and a biotechnology grant program were transferred to TEDCO in fiscal 2016. The following programs have been established by legislation since 2021:

- **Pre-Seed Builder Fund:** The Pre-Seed Builder Fund supports the development of start-up companies run by entrepreneurs from socially or economically disadvantaged backgrounds that hinder access to traditional forms of capital and executive networks at the pre-seed stage. The Governor must include appropriations in the budget bill in the following amounts: \$5.0 million in fiscal 2023; \$6.2 million in fiscal 2024; and \$7.5 million annually beginning in fiscal 2025.
- **Inclusion Fund:** The Inclusion Fund provides capital investment in technology-based businesses that (1) would qualify for investment under the Builder Fund, as provided in TEDCO regulations; (2) are at least 30% owned by individuals who demonstrate economic disadvantage; and (3) are controlled and managed for at least one year after the time of investment by an individual or individuals who demonstrate economic disadvantage.
- **Maryland Makerspace Initiative Program:** The program encourages the establishment and expansion of makerspaces throughout the State. The Governor must include an appropriation in the annual budget bill of at least \$1.0 million in fiscal 2024 through 2028 for the fund. The program terminates September 30, 2028.
- **Maryland Equity Investment Fund:** The Maryland Equity Investment Fund allows unappropriated general fund surplus to be invested in a "qualified business" – with a goal to increase private equity and venture capital in the State – and the

interest earnings and investment returns realized to the benefit of participants of the several pension systems managed by the State Retirement and Pension System. For fiscal 2024, the Governor must include an appropriation in the budget bill to the fund equal to 10% of the unappropriated general fund surplus in excess of \$10.0 million from the second prior fiscal year, up to a maximum of \$10.0 million, with a corresponding decrease in the typical required appropriation.

- **Small Business Innovation Research and Technology Transfer Incentive (SBIR/STTR) Program:** The SBIR/STTR Program allows eligible small businesses to apply for State awards or investments of 25% of SBIR/STTR federal grants, limited to \$25,000 for Phase I funding or \$75,000 for Phase II funding. TEDCO may make up to 20 Phase I distributions and 10 Phase II distributions per fiscal year for a total of \$1.25 million.

For a more thorough discussion of TEDCO's structure and programs, including how its programs support companies in different stages of development, see "[Chapter 13. Economic Development and Business Regulation](#)" of *Volume II – Government Services in Maryland* of the 2022 Legislative Handbook Series.