

**Department of Legislative Services**  
 Maryland General Assembly  
 2021 Session

**FISCAL AND POLICY NOTE**  
**Enrolled - Revised**

Senate Bill 943

(Senator Guzzone)

Budget and Taxation

Appropriations

**University of Maryland Strategic Partnership Act of 2016 - Appropriations,  
 Degree and Credential Programs, and Center for Cybersecurity**

This bill codifies the Center for Cybersecurity at the University of Maryland Baltimore County (UMBC) and requires the Governor to appropriate \$3.0 million for the center annually beginning in fiscal 2023. The bill also increases, beginning in fiscal 2023, mandated appropriations by \$2.5 million each for the Center for Maryland Advanced Ventures at the University of Maryland (CMAVUM) and the University of Maryland Center for Economic and Entrepreneurship Development (UMCEED). A portion of the mandated funding is for the development and location of technology companies in Baltimore City and Prince George’s County. In addition, for fiscal 2023 through 2027, the Governor must appropriate at least an additional \$4.0 million to the University System of Maryland (USM) Office to increase the estimated funding guideline attainment levels of USM institutions as specified. **The bill takes effect July 1, 2021.**

**Fiscal Summary**

**State Effect:** No effect in FY 2022. General fund expenditures increase by at least \$13.9 million annually in FY 2023 through 2027 due to the mandated funding and related effects. Any impact due to the USM funding guideline attainment ends in FY 2027, although \$8.0 million in mandated appropriations and approximately \$1.0 million in related formula impacts continue in FY 2028 and beyond, as explained and detailed below. USM higher education revenues and expenditures increase by \$12.0 million from FY 2023 through 2027 and then \$8.0 million annually beginning in FY 2028 (not shown below). **This bill establishes and increases mandated appropriations beginning in FY 2023.**

(\$ in millions)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	0	13.9	14.2	14.2	14.2
Net Effect	\$0.0	(\$13.9)	(\$14.2)	(\$14.2)	(\$14.2)

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

**Local Effect:** Local community college revenues and expenditures increase due to additional State aid under the Cade formula, as discussed below.

**Small Business Effect:** Potential meaningful.

---

## Analysis

**Bill Summary:** Specifically, 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 as specified.

Beginning in fiscal 2023, \$1.5 million of the additional \$2.5 million mandated appropriation for CMAVUM must be used to encourage the development and location of university-created or -sponsored technology companies in Baltimore City.

UMCEED must develop degree and credential programs in quantum technologies, advanced data computing, and information technologies, as specified.

Beginning in fiscal 2023, the Governor must include in the annual budget an appropriation of at least \$2.5 million to UMCEED to be used to encourage the development and location of university-created or -sponsored technology companies in Prince George's County.

For fiscal 2023 through 2027, the Governor must appropriate in the annual budget at least an additional \$4.0 million to USM Office for the purpose of increasing the estimated funding guideline attainment levels of the primarily residential USM institutions. USM must allocate the funds each year in a manner that brings the primarily residential institutions with the lowest estimated funding guideline attainment levels in fiscal 2021 as close as possible to a 68% estimated funding guideline attainment level by fiscal 2027. The funds distributed each year through fiscal 2027 are in addition to the annual appropriation for each institution.

**Current Law:** Chapter 25 of 2016 formally established a strategic partnership between two distinct University of Maryland (UM) campuses – the Baltimore Campus and the College Park Campus. The UM strategic partnership leverages the resources of each of these campuses within UM to benefit the State and improve and enhance (1) academic programs and experiences for students; (2) research, technology, technology transfer, and commercialization for economic development; and (3) public service and the commitment to community development. Each campus must have a president.

*Center for Maryland Advanced Ventures at the University of Maryland*

Chapter 25 of 2016 established CMAVUM, which must be located on the UM Baltimore Campus in Baltimore City.

CMAVUM must:

- pursue grant funding for UM, including interdisciplinary grant funding;
- develop and implement guidelines for the transfer of technology developed by UM to the private sector, including a process to identify research projects that may be viable for commercialization; and
- facilitate the transfer of technology from UM to commercial industries using specified techniques.

The center also must provide these services related to interdisciplinary grant funding and transfer of technology to any public institution of higher education that requests the services. Subject to the approval of the presidents of the UM College Park Campus and the UM Baltimore Campus, the center may assess a reasonable fee for providing services.

The presidents must appoint an executive director of the center. The executive director must:

- ensure that the duties of the center are carried out;
- develop a plan to appropriately staff the center in order to effectively carry out the duties of the center;
- develop a working relationship with the Secretary of Commerce and the Executive Director of the Maryland Technology Development Corporation (TEDCO); and
- annually report to the presidents of UM College Park Campus and UM Baltimore Campus on specified topics.

TEDCO may advise the executive director of the center on the development of the center.

The Governor must appropriate at least \$3.0 million in general funds to the center each year. In addition, the Governor must appropriate at least \$1.0 million annually in general funds to the center to be used to encourage the development and location of university-created or -sponsored technology companies in Baltimore City. State funding for CMAVUM *may not* be included in the calculations of State funding for community colleges (Senator John A. Cade Funding Formula), Baltimore City Community College (BCCC), and private nonprofit institutions of higher education (Joseph A. Sellinger formula).

*University of Maryland Center for Economic and Entrepreneurship Development*

Chapter 25 of 2016 also established UMCEED, which must be located on the UM College Park Campus.

Following all State law, regulations, and processes for program review and approval, UMCEED must advance the education of students by developing degree and credential programs in the following fields of study: virtual and augmented reality; neurosciences; biomedical devices; data analytics; and cybersecurity.

The presidents must appoint an executive director of UMCEED. The executive director must:

- ensure that the duties of UMCEED are carried out;
- develop a plan to appropriately staff UMCEED in order to effectively carry out the duties of UMCEED; and
- annually report to the presidents of the UM College Park Campus and the UM Baltimore Campus on specified topics.

The Governor must appropriate at least \$6.0 million in general funds to UMCEED annually. State funding for UMCEED *may not* be included in the calculations of State funding for community colleges (Senator John A. Cade Funding Formula), BCCC, and private nonprofit institutions of higher education (Joseph A. Sellinger funding formula).

*Funding Guideline Attainment*

Funding guidelines were used beginning in fiscal 2001 to assess how public four-year institutions in Maryland were funded relative to their peers, except St. Mary's College of Maryland, which has a statutory funding formula. The funding guidelines are not mandated in law. Colleges and universities throughout the United States that are similar in size, program mix, enrollment composition, and other defining characteristics were identified for each Maryland four-year public institution as the institution's "funding peers." Beginning in fiscal 2015, the funding guidelines were revised to reflect institutions' peers in states that Maryland principally competes with for employers, *i.e.*, competitor states (California, Massachusetts, Minnesota, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, and Washington).

The funding guideline for each institution is calculated by determining the seventy-fifth percentile (since 2009, the guideline for the historically black colleges and universities has been tied to the eightieth percentile) of the sum of state appropriation and tuition and fee revenue per full-time equivalent student of the competitor state peer institutions. The resulting per student rate is multiplied by the institution's projected

enrollment to determine the recommended resources. Projected institutional tuition and fee revenue is then subtracted from the recommended resources. The remainder represents the State investment. Funding guideline attainment is expressed as a percentage with the goal being 100%. As shown in **Exhibit 1**, under the fiscal 2021 estimated funding guideline attainment, Salisbury University (SU), Towson University (TU), and UMBC all have funding guideline attainment under 68%. The University of Maryland Center for Environmental Science, UM Baltimore Campus, and the University of Maryland Global Campus are not primarily residential institutions.

---

**Exhibit 1**  
**Funding Guideline Attainment for University System of Maryland Institutions**  
**Fiscal 2021 Estimate**

<b><u>Institution</u></b>	<b><u>FY 2021 Funding Guideline</u></b>	<b><u>FY 2021 Working Appropriation</u></b>	<b><u>FY 2021 Attainment</u></b>
Bowie State University	\$67,187,723	\$45,642,734	68%
Coppin State University	38,040,566	45,354,995	119%
Frostburg State University	56,631,253	42,308,037	75%
Salisbury University	95,824,409	57,346,149	60%
Towson University	218,473,733	131,276,111	60%
University of Baltimore	50,534,746	41,368,934	82%
UM, Baltimore Campus	368,039,027	236,614,908	64%
UM Baltimore County	223,497,356	145,004,178	65%
UM Center for Env. Science	36,642,481	22,066,489	60%
UM, College Park Campus	768,003,694	546,851,881	71%
UM Eastern Shore	49,094,626	43,964,816	90%
UM Global Campus	231,803,162	42,343,950	18%
USM Office		41,149,239	
<b>USM Total</b>	<b>\$2,203,772,776</b>	<b>\$1,441,292,421</b>	<b>66%</b>

UM: University of Maryland

USM: University System of Maryland

Note: Fiscal 2021 working appropriation reflects the Board of Public Works' reductions.

Source: Maryland Higher Education Commission; Department of Legislative Services

---

**State Fiscal Effect:** In total, general fund expenditures increase by at least \$13.9 million annually for fiscal 2023 through fiscal 2027, as shown in **Exhibit 2**. Of this, \$3.0 million is mandated for the cybersecurity center at UMBC and a total of \$5.0 million is mandated

**Exhibit 2**  
**Additional General Fund Expenditures**  
**Fiscal 2023-2027**  
**(\$ in Thousands)**

	<b><u>FY 2023</u></b>	<b><u>FY 2024</u></b>	<b><u>FY 2025</u></b>	<b><u>FY 2026</u></b>	<b><u>FY 2027</u></b>
Cybersecurity Center	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
CMAVUM <sup>1</sup>	2,500	2,500	2,500	2,500	2,500
UMCEED <sup>2</sup>	2,500	2,500	2,500	2,500	2,500
USM Guidelines Attainment <sup>3</sup>	4,000	4,000	4,000	4,000	4,000
Cade <sup>4</sup>	1,431	1,692	1,682	1,675	1,683
Sellinger <sup>4</sup>	508	503	499	496	495
<b>Additional GF Expenditures</b>	<b>\$13,939</b>	<b>\$14,195</b>	<b>\$14,182</b>	<b>\$14,171</b>	<b>\$14,178</b>

CMAVUM: Center for Maryland Advanced Ventures at the University of Maryland

UMCEED: University of Maryland Center for Economic and Entrepreneurship

UM: University of Maryland

USM: University System of Maryland

<sup>1</sup>Of this additional funding, \$1.5 million must be used to encourage the development and location of UM-created or -sponsored technology companies in Baltimore City (for a total of \$2.5 million to be used for this purpose).

<sup>2</sup>This funding must be used to encourage the development and location of UM-created or -sponsored technology companies in Prince George’s County.

<sup>3</sup>The USM Office must allocate the funds each year in a manner that brings the primarily residential institutions with the lowest estimated funding guideline attainment levels in fiscal 2021 as close as possible to a 68% estimated funding guideline attainment level by fiscal 2027. The funds distributed each year are in addition to the annual appropriation for each institution.

<sup>4</sup>Additional formula funding due to the \$3.0 million annually for the cybersecurity center at the University of Maryland Baltimore County and due to USM guideline attainment being included in the funding for select institutions for that particular fiscal year. No impact from the guideline attainment beyond fiscal 2027 when the USM funding guideline attainment funding ends because the funding is not included in the base budget for the institutions; however, impacts from the \$3.0 million in annual cybersecurity center funding continue in fiscal 2028 and beyond.

Notes: Numbers may not sum to total due to rounding. As discussed below, Baltimore City Community College is not affected in fiscal 2023 through 2027 and is, therefore, not reflected above.

Source: Department of Legislative Services

for CMAVUM and UMCEED annually beginning in fiscal 2023. The total amount also includes a funding guideline attainment supplement, through which general fund expenditures for specific USM institutions increase by \$4.0 million each year for fiscal 2023 through 2027. This supplemental funding and the cybersecurity center funding also result in additional general fund expenditures for formula-funded higher education institutions beginning in fiscal 2023. Since the USM guideline attainment funding is not included in the base budgets, there is no impact for that provision in fiscal 2028 and beyond. However, the cybersecurity center funding continues to impact the funding formulas in fiscal 2028 and beyond. The information and assumptions used in this estimate are discussed more fully below.

*Mandated Funding for the Center for Cybersecurity at the University of Maryland Baltimore County*

Beginning in fiscal 2023, general fund expenditures increase by \$3.0 million annually due to the mandated funding for the UMBC cybersecurity center. It is assumed that any minimal reporting costs for the center can be covered by the mandated funding.

*Mandated Funding for Center for Maryland Advanced Ventures at the University of Maryland and University of Maryland Center for Economic and Entrepreneurship*

Beginning in fiscal 2023, general fund expenditures increase by \$5.0 million due to the additional funding mandated for CMAVUM and UMCEED. Of the \$2.5 million in additional funds mandated for CMAVUM, \$1.5 million must be used to encourage the development and location of UM-created or -sponsored technology companies in Baltimore City (for a total of \$2.5 million for that purpose). The entire \$2.5 million mandated for UMCEED must be used to encourage the development and location of UM-created or -sponsored technology companies in Prince George's County.

*Mandated Funding for the University System of Maryland Funding Guideline Attainment*

For fiscal 2023 through 2027, the Governor must appropriate at least an additional \$4.0 million to the USM Office for the purpose of increasing the estimated funding guideline attainment levels of the primarily residential institutions in USM with the lowest estimated funding guideline attainment levels in fiscal 2021 (*i.e.*, SU, TU, and UMBC). The funds will be distributed to the primarily residential institutions with the lowest estimated funding guideline attainment level in fiscal 2021, thereby increasing revenues for the eligible institutions by a total of \$4.0 million each fiscal year from fiscal 2023 through 2027. Since the general funds distributed under this requirement are not required to be included in the institutions' base budgets, there is no fiscal impact for fiscal 2028 and beyond. The distribution of the additional mandated funds will depend on future year enrollment, tuition revenue, and allocation decisions made by the USM Office.

### *Effect on Higher Education Formulas*

Since the total State appropriation for selected public four-year institutions, which includes SU, TU, and UMBC, is used to calculate the statutory funding amounts for the Senator John A. Cade (local community colleges) and the Joseph A. Sellinger (independent institutions) funding formulas, general fund expenditures increase for these formulas beginning in fiscal 2023 as shown in Exhibit 2. Due to the hold harmless provision in BCCC's statutory funding formula, BCCC funding is not anticipated to be impacted until fiscal 2028. Since USM guideline attainment funds are not required to be included in the institutions' base budgets, there is no fiscal impact from the guideline attainment for fiscal 2028 and beyond. However, impacts from mandated funding for the cybersecurity center continue in fiscal 2028 and beyond since that mandate continues, totaling approximately \$1.0 million annually for the BCCC (\$80,000), Cade (\$721,000), and Sellinger (\$212,000) formulas. Actual funding depends on enrollment and the actual distribution of funds.

The Department of Legislative Services assumes that Section 15 of Chapter 25 of 2016, which excludes State funding for CMAVUM and UMCEED from the higher education funding formula calculations, also applies to this bill. To the extent the UMCEED funding counts toward the formulas (UM Baltimore Campus funding does not count toward the formulas under current law), formula funding increases further beginning in fiscal 2023.

**Local Fiscal Effect:** Local community college revenues and expenditures increase due to additional State aid under the Senator John A. Cade Funding Formula beginning in fiscal 2023. As shown above in Exhibit 2, State aid to local community colleges increases by approximately \$1.4 million in fiscal 2023, increasing to approximately \$1.7 million in fiscal 2027. Since the USM guideline attainment amounts are not being added to USM institutions' base budgets, there is no compounding effect on the formula and any impact due to the funding guidelines ends after fiscal 2027 when the USM guideline funding ends. However, since the mandated funding for the cybersecurity center continues, the Cade formula impact from that funding continues. Thus, State aid to local community colleges increases by approximately \$721,000 annually in fiscal 2028 and beyond.

**Small Business Effect:** The bill requires additional funding to encourage the development of UM-created or -sponsored technology companies in Baltimore City and Prince George's County. To the extent such companies are small businesses, they may meaningfully benefit from the enhanced funding.

**Additional Comments:** Eligible private, nonprofit institutions receive approximately \$500,000 in additional State aid through the Sellinger formula annually in fiscal 2023 through 2027. For fiscal 2028 and beyond, State aid through the Sellinger formula increases



by an estimated \$212,000 annually due to the continued mandated funding for the cybersecurity center.

---

### **Additional Information**

**Prior Introductions:** None.

**Designated Cross File:** None.

**Information Source(s):** Prince George's County; University System of Maryland; Department of Legislative Services

**Fiscal Note History:** First Reader - March 9, 2021  
an/rhh Third Reader - March 30, 2021  
Revised - Amendment(s) - March 30, 2021  
Enrolled - May 10, 2021  
Revised - Amendment(s) - May 10, 2021

---

Analysis by: Caroline L. Boice

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510