

**Department of Legislative Services**  
 Maryland General Assembly  
 2018 Session

**FISCAL AND POLICY NOTE**  
**Third Reader - Revised**

Senate Bill 204

(Senators Simonaire and Lee)

Education, Health, and Environmental Affairs

Ways and Means

**Higher Education - Cybersecurity Public Service Scholarship Program**

This bill establishes the Cybersecurity Public Service Scholarship Program for eligible students pursuing an education directly relevant to cybersecurity. Recipients must complete a one-year service obligation that meets specified conditions for each year a scholarship is received, or repay the State for the scholarship. Funds for the program are as provided in the annual budget of the Maryland Higher Education Commission (MHEC). **The bill takes effect July 1, 2018.**

**Fiscal Summary**

**State Effect:** General fund expenditures increase by \$160,000 in FY 2019 due to the scholarship and one-time expenses. Beginning in FY 2020, general fund expenditures increase to \$200,000 annually once the scholarship is fully phased in, under the assumptions discussed below. Revenues are not materially affected.

(in dollars)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	160,000	200,000	200,000	200,000	200,000
Net Effect	(\$160,000)	(\$200,000)	(\$200,000)	(\$200,000)	(\$200,000)

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

**Local Effect:** Local school system expenditures are not materially affected. Revenues are not materially affected.

**Small Business Effect:** None.

## Analysis

### **Bill Summary:**

#### *Eligible Individuals*

An individual eligible for in-state tuition who is enrolled as a full-time student in an eligible institution in an approved degree or certificate program directly relevant to cybersecurity may apply if within two years of graduation. An applicant must have maintained a cumulative grade point average of at least 3.0 on a 4.0 scale. Further, an applicant can neither have received a federal CyberCorps Scholarship for Service nor have applied for but not received a federal CyberCorps Scholarship for Service.

#### *Eligible Institutions*

The award may be used at a public or private nonprofit institution of higher education in the State that possesses a certificate of approval from MHEC or is approved under operation of law.

#### *Scholarship Award*

A scholarship award may be used to pay for education expenses as defined by the Office of Student Financial Assistance (OSFA) within MHEC, including tuition, mandatory fees, room, and board. A scholarship recipient must continue to maintain a grade point average of at least 3.0 on a 4.0 scale. Each recipient of a scholarship may hold the award for two years of full-time study.

#### *Work Obligation and Repayment*

For each year a recipient receives a scholarship, the recipient must complete a one-year service obligation by working for a unit of State government in the cybersecurity field or teaching in a public high school in the State in an education program that is directly relevant to cybersecurity.

A scholarship recipient must repay MHEC the scholarship funds received if the recipient does not (1) earn credit as a full-time student; (2) complete an approved degree program that is directly relevant to cybersecurity at an eligible institution; and (3) perform the work obligation.

Generally, a recipient must begin repayment at any time during the period that the recipient is no longer performing the required work obligation. Also, repayment must be made to the State within six years after the repayment period begins and adhere to a repayment

schedule established by OSFA. However, OSFA may waive or defer repayment if the recipient is unable to fulfill the work obligation due to disability or extended sickness.

### *Office of Student Financial Assistance*

OSFA must administer the program and adopt regulations that identify qualifying programs and define the number of credits a recipient must earn as a full-time student.

**Current Law/Background:** Cybersecurity is the body of technologies, processes, and practices designed to protect networks, computers, programs, and data from attack, damage, or unauthorized access. According to the U.S. Bureau of Labor Statistics, employment within computer and information technology [occupations](#) is projected to grow 13% from 2016 to 2026, faster than average for all occupations. Demand for these workers will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security. In 2016, the median pay for [information security analysts](#), the job category that plans and carries out security measures to protect an organization's computer networks and systems, was \$92,600.

### *Qualifying Programs and Institutions*

There are specific [“cybersecurity” degree programs](#) at the bachelor's degree, master's degree, or doctoral level at Capitol Technology University, Johns Hopkins University, Mount St. Mary's University, University of Maryland Eastern Shore, and University of Maryland University College (UMUC). In addition, at the associate's degree level the following community colleges offer a degree in cybersecurity: Carroll Community College, Cecil College, Community College of Baltimore County, Frederick Community College, Garrett College, Hagerstown Community College, Harford Community College, Montgomery College, and Prince George's Community College. There are also post-baccalaureate and post-master's degree certificates in cybersecurity in the State. In addition, OSFA may decide to allow students enrolled in related computer fields such as information technology and computer science to receive the scholarship.

### *Federal Scholarship*

[CyberCorps Scholarship for Service](#) is a federal program that provides stipends of up to \$22,500 per academic year for undergraduate students and up to \$34,000 for graduate students. In addition, these scholarships for service may cover expenses normally incurred by full-time students in the institution, including tuition, education-related fees, and other related expenses. These scholarships may be awarded for three years. Recipients must agree to work after graduation for a government agency (including at the state or local level) or, subject to approval, in a position related to cybersecurity for a period equal to the length of the scholarship.

### *Related Funding in Maryland*

The fiscal 2019 budget includes \$340,000 for the University of Maryland, Baltimore County to administer (\$175,000) and distribute approximately 55 student stipends of \$3,000 annually (\$165,000) for study in a technology field.

For the 2017-2018 academic year, all current Workforce Shortage Student Assistance Grants were set at the statutory minimum of \$4,000 per year for full-time students attending a Maryland four-year institution. The fiscal 2019 budget includes \$1.2 million for the eligible workforce shortage fields identified by OSFA or by statute for the program.

**State Fiscal Effect:** General fund expenditures increase by \$160,000 in fiscal 2019, increasing to \$200,000 annually once the scholarship is fully phased in the following year. Although scholarship recipients may be attached to State employment due to the service obligation, it is assumed that salary and turnover expenditures are not materially affected. The following information and assumptions were used in developing this estimate.

- General fund expenditures increase by \$60,000 in fiscal 2019 for one-time programing costs to program the Maryland College Aid Processing System scholarship system for the new scholarship.
- No additional MHEC staff are required to implement the program; however, to implement a larger scholarship program than the one described below, additional staff may be required – especially to monitor the service obligation requirement.
- 25 individuals receive a new award each year. Since an individual may receive an award for two years of full-time study, 50 scholarships are distributed a year once the program is fully phased in the 2019-2020 academic year (fiscal 2020).
- The estimated number of scholarships is based on approximately 500 qualifying cybersecurity positions that may be within State government and school systems and 5% of those positions being vacant annually.
- The 500 qualifying cybersecurity positions reflect both authorized positions in State government and the number of schools in the State that teach high school students. The fiscal 2019 budget includes 234 positions for the Department of Information Technology, 6 of which belong to the Cybersecurity Services Team. In addition, other units of State government employ individuals in computer-related fields, some of whom work on projects related to cybersecurity. As of January 24, 2018, there were nine regular active recruitments for computer-related positions, it is unknown how many of those positions would qualify as positions related to cybersecurity. It

is also unknown how many teachers teach cybersecurity; however, 268 schools teach high school students in the State and 129 high schools do not offer any computer science courses.

- Scholarship awards are set at \$4,000 per recipient per academic year, the same amount as the current Workforce Shortage Student Assistance Grants.

The actual number of awards and the amounts of the awards depend on the amount provided for the scholarships by the Governor in the annual State budget and the regulations and guidelines set by MHEC, which may be greater than or less than the estimate provided above.

General fund revenues are not anticipated to be materially affected, although some recipients may be required to repay some or all of their awards.

**Local Expenditures:** Although scholarship recipients may be attached to teaching due to the service obligation, it is assumed that salary and turnover expenditures are not materially affected. It is assumed that local community college tuition revenues are not materially affected.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Maryland State Department of Education; Maryland Higher Education Commission; Department of Budget and Management; U.S. Bureau of Labor Statistics; U.S. Office of Personnel Management; Department of Legislative Services

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