

Department of Legislative Services  
 Maryland General Assembly  
 2019 Session

FISCAL AND POLICY NOTE  
 Third Reader - Revised

House Bill 440

(Delegate Harrison, *et al.*)

Ways and Means and Appropriations

Education, Health, and Environmental Affairs

**Pathways in Technology Early College High (P-TECH) Expansion Act of 2019**

This bill allows for the award of no more than three new Pathways in Technology Early College High (P-TECH) planning grants in fiscal 2020 prior to the 2022-2023 school year (fiscal 2023). Likewise, the bill allows planning grants recipients in fiscal 2020 to establish new P-TECH schools prior to the 2023-2024 school year (fiscal 2024). **The bill takes effect July 1, 2019.**

**Fiscal Summary**

**State Effect:** To the extent new P-TECH planning grants are awarded and schools are established, general fund expenditures increase, under one set of assumptions by \$275,000 in FY 2020 escalating to \$1.6 million by FY 2024, as discussed further below. The FY 2020 State budget includes \$200,000 for P-TECH planning grants contingent on enactment of this bill. To the extent Baltimore City Community College (BCCC) enrolls students from new P-TECH schools, BCCC expenditures and revenues increase. **This bill may increase mandated appropriations beginning in FY 2021.**

(\$ in millions)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Higher Ed Rev.	-	-	-	-	-
GF Expenditure	\$0.3	\$0.1	\$0.6	\$1.1	\$1.6
Higher Ed Exp.	-	-	-	-	-
Net Effect	(\$0.3)	(\$0.1)	(\$0.6)	(\$1.1)	(\$1.6)

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

**Local Effect:** To the extent local school systems receive P-TECH planning grants and open new P-TECH schools, local school system and local community college revenues and expenditures increase.

**Small Business Effect:** None.

## Analysis

**Current Law/Background:** Chapter 144 of 2016 established P-TECH schools in Maryland, which are public schools that offer grades 9 through 14 and that integrate high school, college, and the workplace. The result is intended to be a seamless pathway that enables students to graduate in six years or less with a high school diploma, an associate's degree, and relevant professional experience. One of the goals of P-TECH schools, which distinguishes them from other early college programs, is for students to earn a credential and workplace skills that are aligned with industry needs and expectations. P-TECH students are required to receive at least one paid summer internship of at least six weeks duration with an industry partner. The P-TECH program is open admission and has no cost to students.

There is a P-TECH planning grant program in the State. The purpose of the P-TECH planning grant program is to provide grants to local boards to plan and develop P-TECH schools in the State. Funds for the P-TECH planning grant are as provided in the State budget. Beginning in fiscal 2018, no more than one P-TECH planning grant may be awarded in a local school system. Beginning in fiscal 2019, no new P-TECH planning grants may be awarded to establish a new P-TECH school until the 2016-2017 cohort of P-TECH students completes the six-year pathway sequence (*i.e.*, the 2022-2023 school year/fiscal 2023).

Among other provisions, Chapter 591 of 2017 stated the intent of the General Assembly that no additional P-TECH schools be established other than those that received a P-TECH planning grant in fiscal 2017 or 2018 until the P-TECH program is shown to be successful in preparing students for the workforce or for further postsecondary education.

The P-TECH funding mechanisms established in Chapter 591 of 2017 include (1) inclusion of P-TECH students in the K-12 Foundation Program funding formula for public schools; (2) P-TECH planning grants; (3) P-TECH supplemental college grants; (4) P-TECH supplemental school grants; and (5) inclusion of P-TECH students in the Senator John A. Cade Funding Formula for local community colleges and the BCCC funding formula.

**Exhibit 1** shows the timeline for when P-TECH schools have been opened in the State. The first P-TECH schools opened for students in Baltimore City in the 2016-2017 school year with 50 grade 9 students at Paul Laurence Dunbar High School and 50 grade 9 students at Carver Vocational-Technical High School. P-TECH at Dunbar is in a partnership with The Johns Hopkins Hospital; the University of Maryland, Baltimore Campus; and Kaiser Permanente. P-TECH at Carver is in a partnership with IBM.

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**Exhibit 1**  
**P-TECH School Openings Timeline**  
**Fall 2016-2018**

	<b>New P-TECH Schools Planned</b>	<b>P-TECH Schools Opened</b>	<b><u>LEAs with New P-TECH Schools</u></b>	<b>Total P-TECH Schools Statewide</b>
<b>Fall 2016</b>	2	2	Baltimore City (2)	2
<b>Fall 2017</b>	4	3	Allegany County (1) and Prince George's County (2)	5
<b>Fall 2018</b>	6	3	Baltimore City, Baltimore and Montgomery counties	8

LEA: local education agency

P-TECH School: Pathways in Technology Early College High School

Note: Originally, four schools were supposed to open in fall 2017, but the school meant to serve the Eastern Shore could not find an industry partner and never started. Also, although the fiscal 2018 budget provided funding sufficient to fund six planning grants, only three LEAs were awarded grants to start new schools.

Source: Department of Legislative Services

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Three additional schools opened across the State for the 2017-2018 school year. This includes two in Prince George's County. Both are located at Frederick Douglass High School, with one partnering with Marriott and the other with MedStar Health. Allegany County started its first P-TECH school as well, partnered with Western Maryland Health Systems. One school was supposed to open on the Eastern Shore to serve Caroline, Queen Anne's, and Talbot counties but was never able to find an industry partner and get started.

The fiscal 2018 budget provided funding for planning grants for six additional P-TECH schools to open in fall 2018. However, the Maryland State Department of Education (MSDE) reports that only three planning grants were made in fiscal 2018 for schools to start in fall 2018: one for Baltimore County, one for Montgomery County, and one more for Baltimore City (this will bring Baltimore City's total number of P-TECH schools up to three). This means that there are a total of eight P-TECH schools statewide for the 2018-2019 school year. Chapter 591 of 2017 specifies that this latest round of planning grants will be the last until the initial P-TECH cohort from the 2016-2017 school year completes its six-year sequence.

Chapter 591 also put in place the funding structure for the P-TECH program. This funding is split between K-12 funding provided to local education authorities (LEAs) and higher education funding provided to community colleges. For K-12, students are counted normally in their LEA’s funding formula in their first four years in the program (*i.e.*, grades 9 through 12). For their fifth year in the program (grade 13), they remain in the LEA’s formula but are counted as 50% of a full-time equivalent student (FTES) for their LEA; in their sixth and final year (grade 14), they are counted as 25%. In addition, LEAs receive \$750 from the State per P-TECH student, which must be matched 100% by the LEA. For community colleges, Chapter 591 establishes a supplemental college grant that is equal to the tuition and fees that would normally be charged for the classes in which a P-TECH student enrolls. For counties that received a disparity grant in the prior fiscal year, the State share is 50% and the local share is 50%; for counties that did not receive a disparity grant in the prior fiscal year, the State share is 25% and the local share is 75%. Student credit hours at a community college are also included in the college’s FTES calculation for their funding formulas, providing additional funding.

Under Chapter 591, MSDE is required to report annually by December 1 on a number of P-TECH-related items, including the number of P-TECH students enrolled in each P-TECH school and the associated industry partners. As shown in **Exhibit 2**, 96% of P-TECH school students are on track to graduate high school in four years, and a total of 66% of P-TECH school students are on track to complete the P-TECH program and earn a high school diploma and associate of science degree.

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**Exhibit 2**  
**P-TECH Students on Track for Completion<sup>1</sup>**  
**As of June 30, 2018**

On track for high school graduation in four years	96%
On track for P-TECH completion in four years <sup>1</sup>	46%
On track for P-TECH completion in five years <sup>1</sup>	9%
On track for P-TECH completion in six years <sup>1</sup>	11%
<b>Total on track for P-TECH completion</b>	<b>66%</b>

P-TECH: Pathways in Technology Early College High School

<sup>1</sup> P-TECH completion is the completion of an Associate of Applied Science degree and a high school diploma.

Note: These data reflect the freshmen at five P-TECH schools and the sophomores at two P-TECH schools.

Source: Maryland State Department of Education; Department of Legislative Services

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**State Fiscal Effect:** The fiscal 2020 State budget (House Bill 100 of 2019) includes \$200,000 for P-TECH planning grants contingent on the enactment of this bill, Senate Bill 167, or House Bill 152. The bill authorizes no more than three new P-TECH planning grants; therefore, it is assumed that three planning grants (of approximately \$66,667 each) will be awarded in fiscal 2020 (2019-2020 school year). P-TECH planning grants have been \$100,000 each in the past, however, there is no requirement that planning grants be that amount. If additional planning funds are required, local funds could be used to supplement State grants.

Assuming three planning grants are funded in fiscal 2020, this estimate assumes that three new P-TECH schools open in the 2020-2021 school year (fiscal 2021). Absent any other information about the location and size of these new schools, it is assumed that these new P-TECH schools will be prototypical P-TECH schools and that the new schools operate in the same manner as actual P-TECH schools operating in the State.

The State cost for a prototypical P-TECH school was derived using data from actual P-TECH schools, including average cohort size and students on track for completion, the P-TECH funding formulas in current law, weighted averages of disparity grant counties, and the Senator John A. Cade and BCCC funding formulas for community colleges.

As shown in **Exhibit 3**, each fully phased-in prototypical P-TECH school will cost the State an estimated \$633,125 more per year than a typical high school in fiscal 2026. These costs reflect a freshman cohort of 50 students; 10 students enrolled in year five; and 5 students enrolled in year six. Under those assumptions, a fully phased-in P-TECH school would have 215 students. Those 215 students are assumed to take a total of 660 college courses per year.

Based on current actual data regarding the number of students on track to earn an associate's degree and a high school degree, shown in Exhibit 2, it is assumed that, from each 50-student cohort, 33 students or 66% earn an Associate of Applied Science degree as part of their P-TECH experience and 17 students or 34% only earn a high school diploma. This assumes that all students eventually earn a high school diploma even though some current P-TECH students are not on track to earn a high school degree in four years. To the extent that students on track to earn only a high school diploma remain enrolled in the P-TECH program during years five and six to earn an associate's degree, State costs increase by up to an estimated additional \$310,000 per year per prototypical P-TECH school in fiscal 2026. However, since the first cohort of Maryland P-TECH students is still only in grade 11, it is unknown if students not on track to complete the P-TECH program will remain enrolled in the P-TECH program for years five and six.

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**Exhibit 3**  
**Prototypical Fully Phased-in P-TECH School**

Freshman cohort	50
Year 5 students	10
Year 6 students	5
Additional FTES in K-12 formula	6.25
Total P-TECH students enrolled	215
College courses taken by entire P-TECH school each year	660
Estimated additional total State cost per year in fiscal 2026	\$633,125
Estimated AAS degrees awarded per cohort	33
Estimated P-TECH students only earning HS diploma per cohort	17

AAS: Associate of Applied Science

FTES: full-time equivalent students

HS: high school

P-TECH: Pathways in Technology Early College High School

Notes: These numbers are estimates based on actual P-TECH schools currently operating in Maryland, current funding formulas, and estimated costs. Actual numbers and costs depend on actual implementation and actual costs. In addition, the data reflects the first cohorts of students in Maryland P-TECH schools. Future cohorts may have additional students on track to earn an AAS degree, which will increase total costs. Further, the data reflects the completion data shown in Exhibit 2. To the extent additional students take five or six years to complete an AAS degree, costs are greater.

Source: Maryland State Department of Education; Department of Legislative Services

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As explained above, it is assumed that three new prototypical P-TECH schools open in the 2020-2021 school year (fiscal 2021). Therefore, based on a prototypical cohort size of 50, an estimated 150 freshmen will enroll in new P-TECH schools during the 2020-2021 school year. Under that set of assumptions, general fund expenditures increase by approximately \$36,300 in fiscal 2021, increasing annually as the cohorts increase until the three schools are fully phased in during the 2025-2026 school year (fiscal 2026) at a cost of approximately \$1.9 million annually. After fiscal 2026, general fund expenditures increase due to increases in tuition and fees and the community college funding formulas. Actual expenditures also depend on actual enrollment of P-TECH students and the actual completion timeline of P-TECH students.

MSDE advises that, under the bill, three new positions are needed to manage the grants, provide programmatic support, and do the required data collection, analysis, and reporting. The Department of Legislative Services advises that one new position is required; thus,

general fund expenditures increase by \$74,722, which accounts for a 90-day start-up delay following the bill's July 1, 2019 effective date. It includes a salary, fringe benefits, one-time start-up costs, and ongoing operating expenses.

	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>
New Position	1.0		
P-TECH Planning Grants	\$200,000		
P-TECH Funding Formulas	0	\$36,257	\$502,539
Salary and Fringe Benefits	69,363	92,352	95,460
MSDE Operating Costs	<u>5,359</u>	<u>625</u>	<u>625</u>
<b>New P-TECH GF Expenditures</b>	<b>\$274,722</b>	<b>\$129,234</b>	<b>\$598,624</b>

Future year expenditures reflect a full salary with annual increases and employee turnover and ongoing operating expenses.

To the extent BCCC enrolls students from new P-TECH schools, BCCC expenditures and revenues increase. However, this impact cannot be reliably estimated at this time.

**Local Fiscal Effect:** Local school system and local community college participation in new P-TECH programs is optional. Thus, any local impact is due to local choices. Under the current P-TECH funding formulas, a local school system must pay \$750 per P-TECH student enrolled and 50% to 75% of a student's tuition and fees depending on whether the county received a disparity grant the prior fiscal year.

To the extent local school systems receive P-TECH planning grants and open new P-TECH schools, local school system and local community college revenues and expenditures increase.

### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Maryland State Department of Education; Maryland Higher Education Commission; Baltimore City Community College; Baltimore City Public Schools; Montgomery County Public Schools; Prince Georges County Public Schools; Department of Legislative Services

**Fiscal Note History:**  
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