

Department of Legislative Services
Maryland General Assembly
2016 Session

FISCAL AND POLICY NOTE
Third Reader - Revised

Senate Bill 376 (The President, *et al.*) (By Request - Administration)
Education, Health, and Environmental Affairs Ways and Means and Appropriations
and Budget and Taxation

Pathways in Technology Early College High (P-TECH) Schools Act of 2016

This Administration bill establishes State-funded Pathways in Technology Early College High (P-TECH) Schools, which provide a course of study leading to a high school degree and an associate's degree or approved certificate in six years. Beginning in fiscal 2017, for P-TECH schools that execute a memorandum of understanding (MOU) meeting specified conditions by July 1, 2016, the State must provide \$260 per P-TECH student as grants to local boards of education. By December 1, 2016, the Maryland State Department of Education (MSDE), in collaboration with specified stakeholders, must determine the optimal structure and funding strategy for P-TECH schools in Maryland. MSDE and the Maryland Higher Education Commission (MHEC) must jointly report on whether certain students should be included in the public school enrollment count, a framework for funding dual enrollment costs, and recommendations for legislation in 2017, among other items.

The bill takes effect June 1, 2016.

Fiscal Summary

State Effect: In FY 2017, general fund expenditures increase by \$626,000 due to P-TECH planning and school grants; the FY 2017 State budget includes funding for these purposes. General fund expenditures for school grants escalate each year as additional students enroll, with the Baltimore City Community College (BCCC) funding formula increasing beginning in FY 2020. The fiscal impact is fully reflected in general fund expenditures by FY 2024. **This bill establishes a mandated appropriation beginning in FY 2018.**

(in dollars)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Higher Ed Rev.	\$0	\$25,100	\$90,300	\$305,300	\$801,500
GF Expenditure	\$626,000	\$52,000	\$78,000	\$183,300	\$425,000
Higher Ed Exp.	\$0	\$25,100	\$90,300	\$305,300	\$801,500
Net Effect	(\$626,000)	(\$52,000)	(\$78,000)	(\$183,300)	(\$425,000)

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

Local Effect: Only two schools, both in Baltimore City, meet the MOU requirements under the bill; additional legislation is needed in the 2017 session to expand State-supported P-TECH schools. Expenditures for Baltimore City Public Schools (BCPS) increase by \$26,000 in FY 2017 for P-TECH school costs, assuming the local school system is responsible for one-half of the P-TECH school grant; costs increase to \$156,000 in FY 2022 and annually thereafter when the students are fully phased in. Beginning in FY 2018, BCPS expenditures for P-TECH students enrolled in BCCC increase by *up to* \$19,700, reflecting current law provisions for dual enrollment. Absent further legislation, costs increase to \$630,800 in FY 2022 and annually thereafter when the students are fully phased in.

Small Business Effect: The Administration has determined that this bill has minimal or no impact on small business (attached). The Department of Legislative Services (DLS) concurs with this assessment. (The attached assessment does not reflect amendments to the bill.)

Analysis

Bill Summary:

Optimal Structure and Funding Strategy

MSDE, in collaboration with stakeholders (including MHEC, the Maryland Association of Community Colleges, private-sector representatives with experience in the P-TECH model, and representatives of proposed P-TECH schools) must determine the optimal funding strategy for P-TECH schools in Maryland. By December 1, 2016, MSDE and MHEC must jointly report to specified committees of the General Assembly on:

- the status of the planning grants and implementation of P-TECH schools in Maryland, including whether any of the planning grants resulted in proposed P-TECH schools that are ready to be implemented;
- the number of credits P-TECH students are expected to take under the P-TECH model from both the high school and the higher education institution in each year of the program;
- the number of students expected to graduate from high school with both a diploma and either an associate's degree or an MHEC-approved certificate in each cohort attending a P-TECH school;
- whether P-TECH students should be included in the Maryland public school enrollment count in years five and six of the program, or in any year or semester during which the majority of the credits are being taken from the higher education

institution, and justification for any determination that P-TECH students should continue to be included in the enrollment count;

- a framework for funding the dual enrollment costs of P-TECH students, which includes the requirements of the P-TECH model to pay for student transportation, fees, and books in addition to tuition, including consideration of the dual enrollment provisions in current law; and
- an examination of P-TECH schools in other states.

Further, MSDE and MHEC must make recommendations for legislation to be introduced in the 2017 legislative session. Specifically, the recommendations must include (1) a justification for, and a reasonable division of, P-TECH model costs among the State, school system, higher education, and, in alignment with the P-TECH model, industry partners of the P-TECH schools, while maximizing opportunities to minimize State costs and (2) whether additional P-TECH schools are ready to be implemented based on the status of the planning grants and, if so, where they may be located.

P-TECH Schools and Establishment by MOU Process

A P-TECH school is a public secondary school selected by MSDE that partners with an institution of higher education that has received a certificate of approval from MHEC. To meet the definition in the bill, a P-TECH school also has to have submitted an MOU to MSDE by March 15, 2016, and must execute an MOU meeting specified conditions by July 1, 2016. Specifically, a P-TECH school must be established through an MOU executed between one or more industry partners, one or more institutions of higher education, and a local board of education (or a consortium of local boards of education that have an agreement to operate a P-TECH school serving students in the local school systems that are part of the consortium). The MOU must include the following provisions: (1) substantive mentoring of P-TECH students; (2) at least one paid summer internship of at least six weeks duration per student; and (3) P-TECH students are first in line for consideration of a job at the industry partner after graduation.

A P-TECH school may be established as a school within a school. A P-TECH school must reserve at least 50% of its available space for students who meet the free and reduced-price meal (FRPM) income criteria.

P-TECH Planning and School Grants

Six planning grants are authorized for State-funded P-TECH schools. No more than two planning grants may be awarded in any jurisdiction.

“P-TECH school costs” are defined as the following costs of operating a P-TECH school and offering and administering a P-TECH curriculum:

- additional staff for the P-TECH school to implement the P-TECH curriculum;
- instructional support services such as professional development for staff for the P-TECH curriculum, P-TECH curriculum materials, additional teacher planning, and additional coordination;
- extended day programs; and
- student support services such as counseling, tutoring, student career exploration, and student events relating to P-TECH curriculum and dual enrollment.

Beginning in fiscal 2017, and in each fiscal year thereafter, the State must distribute P-TECH school grants to local boards of education for a P-TECH school within their jurisdiction. The grants must be distributed proportionately based on enrollment in each P-TECH school. The P-TECH school grants must be used for P-TECH school costs. In fiscal 2017, and in each fiscal year thereafter, and in addition to any other amount provided by law, the amount provided for each P-TECH student is \$520. The State contribution is 50% for each P-TECH student, or \$260; the bill does not specify the source for the other 50%. The estimated number of students likely to be funded by P-TECH school grants, based on the two schools in Baltimore City, is shown in **Exhibit 1**.

Exhibit 1
Estimated Number of P-TECH Students Funded by the State
Fiscal 2017-2022

<u>Fiscal Year</u>	<u># of Students</u>	<u>Estimated State Appropriation for P-TECH School Costs</u>
2017	100	\$26,000
2018	200	52,000
2019	300	78,000
2020	400	104,000
2021	500	130,000
2022	600	156,000

Source: Department of Legislative Services

MSDE must adopt regulations to carry out the bill that include information related to verification of specified metrics by the school district.

Dual Enrollment

The bill is silent on how dual enrollment will be handled.

Annual Reporting Requirement

By December 1 each year, MSDE, in consultation with MHEC, must report on the implementation of P-TECH schools in Maryland including:

- the number of students enrolled in each P-TECH school;
- the industry partners associated with each P-TECH school;
- the curriculum created for each P-TECH school;
- the performance of the P-TECH students on federal and State assessments;
- the number of P-TECH students dually enrolled in a community college; and
- the number of P-TECH students graduating from the school, receiving an associate's degree or commission-approved certificate, and the year in which they graduated and received the degree or certificate.

Locally Established P-TECH Schools

The bill may not be construed to prohibit a local board of education (or consortium of such boards) from establishing a P-TECH school without the per pupil funding established under the bill. A P-TECH school established by a local board of education (or a consortium of such boards) not funded under the bill is nevertheless subject to the definition of a P-TECH school in the bill, which incorporates the MOU requirements.

Current Law:

Funding Mechanism for K-12, BCCC, and Local Community Colleges

The Bridge to Excellence Act of 2002 simplified the State's school financing structure by eliminating a large number of small categorical aid programs. The vast majority of State aid is now distributed to local school systems through formulas that are based primarily on student enrollments (including enrollments of three student populations that are at risk of falling behind academically) and local wealth. Thus, State aid to local school systems increases for each full-time equivalent student (FTES) included in the funding formula. FTES enrollment is calculated using a September 30 student count from the prior fiscal year.

The Senator John A. Cade Funding Formula bases per pupil funding for local community colleges on a set statutory percentage of current year State appropriations per FTES at

selected public four-year institutions of higher education. The resulting community college per student amount is multiplied by the number of FTES enrolled in the colleges in the second preceding fiscal year to identify a total formula amount. Likewise, BCCC receives funding through a similar funding formula; however, since it is a State-operated community college, BCCC receives more funding per FTES than local community colleges.

Dual Enrollment Funding Mechanism for Students

A public institution of higher education may not charge tuition to a dually enrolled student. For each dually enrolled student who is enrolled in a public school in a jurisdiction, the local board of education must pay, for *up to four* courses in which the student is enrolled, while a student is in a public *secondary* school in the State:

- for a public four-year institution of higher education, 75% of the cost of tuition; and
- for a community college, the lesser of 5% of the target per pupil foundation amount or 75% of the cost of tuition.

For each course *in excess of four* in which a dually enrolled student is enrolled, the local board of education must pay:

- for a public four-year institution of higher education, 90% of the cost of tuition; and
- for a community college, the lesser of 5% of the target per pupil foundation amount or 90% of the cost of tuition.

For up to four courses, a local board of education may charge a dually enrolled student a fee of up to 90% of the amount paid by the local school system to the higher education institution for the course. For each course in excess of four, a local board of education may charge a dually enrolled student up to 100% of the amount paid by the local school system to the higher education institution for the course. A local board of education must consider the financial ability of students when setting fees and *must waive* the fee for students who are eligible for FRPM.

If there was an agreement before July 1, 2013, between a public school and a public institution of higher education in which the public institution of higher education charges less than 75% of the cost of tuition to a dually enrolled student, the local board must pay the cost of tuition under the agreement.

Background:

P-TECH Model

P-TECH schools are free public schools grades 9 through 14 that integrate high school, college courses, and the workplace. The result is a seamless pathway that enables students to graduate with a high school diploma, an associate's degree, and relevant professional experience. Upon graduation, students can choose to continue their studies at a four-year school or to enter the workforce with industry connections and workplace skills. One of the key elements that distinguishes P-TECH from other concurrent enrollment programs that lead to college credits, or even an associate's degree, is the partnership with industry. One of the goals of P-TECH schools is for students to earn an associate's degree *and* workplace skills that are aligned with industry needs and expectations.

P-TECH programs are designed as a six-year sequence of high school and college courses that a student must complete to earn a high school degree and an associate's degree. All students move through the same sequence of courses but, depending on their strengths and needs, they may move through them at different rates. Some students may accelerate through the program in as few as four years, while others may take the entire six years to complete their degree. The P-TECH programs are designed to be open to all interested students based on available space, with no screening prior to enrollment.

The first such grades 9 through 14 school, Pathways in Technology Early College High School (P-TECH), opened in September 2011, in Brooklyn, New York, as a collaboration between the New York City Department of Education, the City University of New York, New York City College of Technology ("City Tech"), and IBM.

P-TECH Development Guide

In its first year of implementation, P-TECH Brooklyn published a guidebook titled [STEM Pathways to College and Careers Schools: A Development Guide](#), which describes how to develop a P-TECH school and the P-TECH model.

The guidebook lays out the core components of P-TECH, which are as follows:

- focus on early college;
- focus on careers;
- focus on personal pathways;
- extended learning time; and
- specialized staffing.

According to the guide, beginning in grade 9, students focus on the pathway required to graduate with an associate's degree in six years. In regards to careers, students participate in an ongoing, sequenced Workplace Learning curriculum informed by current and future industry standards that includes career goals, mentoring, guest speakers, workplace visits, and internships. Academic pathways are personalized to the individual needs and performance of students. In addition to extending college-level coursework into what has conventionally been the high school years, the school day and year are also extended beyond the traditional schedule to include even more individual support for students. In order to ensure that the model is adequately supported, both the college and industry partners provide a full-time position to the school.

P-TECH in Other States

Since the P-TECH Brooklyn opened in 2011, the P-TECH model has spread rapidly throughout the country and to Australia. According to the *Washington Post*, as of fall 2015, there were 40 P-TECH schools operating in three states – Connecticut, Illinois, and New York. Colorado and Rhode Island have both recently passed legislation to develop P-TECH schools, and it is anticipated that there will be at least 60 P-TECH programs in operation by fall 2016.

P-TECH in Maryland

In November 2015, Governor Hogan announced that he would like to open four P-TECH programs in Maryland in 2016. His goal at the time was to have two of them located in schools in Baltimore City and two at schools in rural areas of the State. The fiscal 2017 State budget includes \$104,000 for P-TECH school grants and \$600,000 to provide funds for planning grants to establish six (rather than four as originally proposed by the Governor) P-TECH schools in Maryland.

On March 9, 2016, MSDE issued a [revised request for proposals \(RFP\)](#) for school systems in Western Maryland (Allegany, Garrett, or Washington counties) and the Eastern Shore (nine counties, including Cecil), with a goal of enrolling students beginning in fall 2017 (fiscal 2018). According to the RFP, local school systems are eligible for the planning grant. Eligible systems must partner with one or more higher education institutions and an employer. Proposals are due on April 15, 2016, with selection occurring by mid-May. According to the MOU submitted March 13, 2016, IBM, Johns Hopkins Health System, Kaiser Permanente, and the University of Maryland, Baltimore will partner with BCCC and BCPS to establish two P-TECH schools in Baltimore City. Similarly, two planning grants are authorized for Prince George's County to determine whether P-TECH schools should be established in Prince George's County Public Schools.

State and Local Fiscal Effect: The bill has numerous impacts on the State general fund and on BCPS and BCCC – because the bill only applies to BCPS and BCCC, and only if they fully execute an MOU by July 1, 2016. Further legislation will be required to allow additional P-TECH schools to receive State P-TECH grants. Thus, tuition and fees increase at BCCC (which is funded by the State), and the BCCC funding formula is affected through additional enrollment. For the purposes of this estimate, DLS assumes that P-TECH enrollment increases by 50 students for each of the two P-TECH schools in Baltimore City (or 100 students total each year) from fiscal 2017 through 2022 when enrollment stabilizes at 300 students in each school (or 600 students total) annually. However, the number of students eligible is not specified in the bill and could vary considerably from this estimate.

In the absence of a change to the law in the future, DLS assumes that the current provisions related to dual enrollment apply to P-TECH students (including P-TECH students in the fifth and sixth year of the program). As explained above, local school systems pay, in general, 75% of the cost of tuition for dually enrolled students. For the purposes of this estimate, it is assumed that BCPS pays 75% of tuition for all P-TECH students and does not pay the related fees.

DLS made assumptions about the FTES P-TECH students who would then dually enroll by P-TECH cohort each year, equating to 10% of the P-TECH student count in fiscal 2018 and increasing to 100% of P-TECH students by fiscal 2021. Dually enrolled P-TECH students are counted in the BCCC aid formula two years after they enroll. All of these impacts continue to increase as the number of P-TECH students increases and the students move through the six-year program.

Although a number of assumptions are made for the purposes of this estimate, it must be noted that, under the bill, by December 1, 2016, MSDE in collaboration with other stakeholders must determine the optimal funding strategy for P-TECH schools in the State. MSDE and MHEC must jointly report on a number of topics related to the structure of funding P-TECH schools, including whether P-TECH students should be included in the Maryland public school enrollment count in years five and six of the program, or in any year or semester during which the majority of credits are being taken from the institution of higher education, and a framework for funding the dual enrollment costs of P-TECH students that includes specified elements. The estimate provided in this fiscal and policy note is only made based on assumptions reflecting current law and practice and is not meant to presuppose any decisions or recommendations made in the future regarding the Maryland P-TECH funding model. Actual expenditures and revenues will be based on those recommendations and any related legislation and regulations developed.

State Revenues: For fiscal 2016, annual tuition for BCCC is \$2,472 and annual fees are \$508; it is assumed that this increases by 3% annually. Thus, in fiscal 2018, annual tuition is estimated to be \$2,622 and annual fees are estimated to be \$539. Based on the

assumption that BCPS will pay 75% of tuition for all P-TECH students attending BCCC and 100% of fees will be paid; BCCC revenues increase by \$2,506 per FTES.

Accordingly, based on the assumption that BCPS pays 75% of tuition (and 100% of fees are paid) for P-TECH students and the assumption that BCPS P-TECH students will take enough credits to be equivalent to 10 FTES in fiscal 2018, BCCC tuition revenues increase by \$25,055 in fiscal 2018. As explained below, BCCC revenues from the BCCC funding formula increase by \$79,307 in fiscal 2020. When the students are fully phased in in fiscal 2024, BCCC revenues increase by a total of \$3.6 million per year. To the extent more or fewer students are enrolled in BCPS P-TECH schools, BCCC revenues will be greater or lower.

State Expenditures: Based on the assumptions described above, beginning in fiscal 2017, general fund expenditures increase by \$26,000 due to P-TECH school grants to pay 50% of P-TECH school costs; the fiscal 2017 State budget includes \$104,000 for this purpose. Beginning in fiscal 2020, general fund expenditures further increase by an estimated \$79,307 due to the dually enrolled P-TECH students counting in the BCCC funding formula. BCCC expenditures increase due to increased enrollment. The following information and assumptions are used in this estimate.

- Under the bill, the amount provided for each P-TECH student is \$520, of which the State must contribute 50%; thus, the State pays \$260 per P-TECH student. For the purposes of this estimate, it is assumed that 100 P-TECH students are funded in fiscal 2017. Thus, the State appropriates \$26,000 for P-TECH students in fiscal 2017, and the fiscal 2017 budget includes \$104,000 for this purpose. For the purposes of this estimate, the number of students funded increases by 100 each year until fiscal 2022 when it stabilizes at 600 a year and the State must appropriate \$156,000 for 600 students each year thereafter.
- For the purposes of this estimate, it is assumed that the number of FTES attending BCCC are as shown in **Exhibit 2**. Based on that assumption and the assumptions about dual enrollment costs, beginning in fiscal 2020, general fund expenditures increase by an estimated \$79,307, due to the BCCC funding formula from the P-TECH students enrolled in fall 2017 (fiscal 2018). The total State cost for the BCCC funding formula increases by \$2.8 million in fiscal 2024 for 600 FTES, when the number of students is fully phased in, in fall 2021 (fiscal 2022).
- It is assumed that BCCC expenditures increase due to additional enrollment.
- To the extent more or fewer students are enrolled in P-TECH schools, general fund expenditures will be greater or lower.

Exhibit 2
Estimated Number of Additional FTES at BCCC and
Funding for those Students through the BCCC Funding Formula
Fiscal 2018-2024

<u>Fiscal Year</u>	<u>BCCC FTES</u>	<u>BCCC Funding Formula</u>
2018	10	
2019	35	
2020	85	\$79,307
2021	185	295,024
2022	285	761,337
2023	285	1,758,408
2024	285	2,790,166

Note: BCCC FTES are reflected in the BCCC funding formula two years later.

BCCC: Baltimore City Community College

FTES: Full-time equivalent students

Source: Department of Legislative Services

MSDE and MHEC can determine the optimal funding strategy for P-TECH schools in Maryland and handle the bill's reporting requirements with existing resources.

Local Expenditures: BCPS expenditures increase by \$26,000 in fiscal 2017, assuming that the local school system pays the other 50% of the P-TECH school costs (although these costs could be paid with private funds if available). For the purposes of this estimate, it is assumed that the number of BCPS P-TECH students increases by 100 each year until fall 2021 (fiscal 2022), when it is assumed that BCPS will be responsible for \$156,000 for 600 students.

As explained above, for the purposes of this estimate, it is assumed that BCPS will pay 75% of the tuition costs for P-TECH students based on the current dual enrollment law. It is further assumed that 100% of the BCPS P-TECH students qualify for FRPM and, therefore, cannot be charged for tuition.

Based on those assumptions, beginning in fiscal 2018, BCPS expenditures for P-TECH students enrolled in BCCC increase by a total of \$19,665. This increases to \$630,776 in fiscal 2022 for 600 FTES, when the total number of students in the six-year program are fully phased in.

To the extent more or fewer students are enrolled in P-TECH schools, BCPS expenditures will be greater or lower.

Additional Comments: To avoid presupposing decisions about the Maryland P-TECH funding model, additional costs for students to take community college courses are not assigned in this fiscal and policy note, specifically fees, books, and transportation to the community college. Based on a number of assumptions, these costs are estimated to be approximately \$2,100 per FTES in fiscal 2018. These costs could be paid by one or some combination of the following: students, the local school system, the State, and private donors. Absent any other decision, it is assumed that these costs will be paid by the individual students, as is the case under the current dual enrollment law. However, charging students runs contrary to the P-TECH model, under which there is no cost to the students. The report due December 1, 2016, must contain recommendations on a framework for funding P-TECH dual enrollment, including that such costs are not paid by students, consistent with the P-TECH model.

Likewise, any impact on State aid for local school systems has not been accounted for in this fiscal and policy note. The report must determine whether P-TECH students in their fifth and sixth years of the program (or in any year or semester in which the majority of credits are being taken from the higher education institution) should be included in the Maryland public school enrollment count. That determination may affect State aid for local school systems with P-TECH students.

Additional Information

Prior Introductions: None.

Cross File: HB 464 (The Speaker, *et al.*) (By Request - Administration) - Ways and Means and Appropriations.

Information Source(s): Maryland State Department of Education, P-TECH, Department of Legislative Services

Fiscal Note History: First Reader - February 24, 2016
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Analysis by: Caroline L. Boice

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

ANALYSIS OF ECONOMIC IMPACT ON SMALL BUSINESSES

TITLE OF BILL: Pathways in Technology Early College High (P-TECH) Schools Act of 2016

BILL NUMBER: SB0376/HB0464

PREPARED BY: Governor's Legislative Office

PART A. ECONOMIC IMPACT RATING

This agency estimates that the proposed bill:

WILL HAVE MINIMAL OR NO ECONOMIC IMPACT ON MARYLAND SMALL BUSINESS

OR

WILL HAVE MEANINGFUL ECONOMIC IMPACT ON MARYLAND SMALL BUSINESSES

PART B. ECONOMIC IMPACT ANALYSIS