

Department of Legislative Services
 Maryland General Assembly
 2016 Session

FISCAL AND POLICY NOTE
 First Reader

House Bill 464 (The Speaker, *et al.*) (By Request - Administration)
 Ways and Means and Appropriations

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

This Administration bill establishes four 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, the State must provide \$260 per P-TECH student as P-TECH school grants to local boards of education. P-TECH students will dually enroll in a P-TECH school and a community college in the State; thus, they will count in the full-time equivalent student (FTES) enrollment for State K-12 education aid for up to two additional years. The current dual enrollment tuition mechanism does not include dually enrolled P-TECH students; the local boards of education must pay the community colleges for dual enrollment costs, with the State reimbursing the local boards for 50% of the dual enrollment costs.

The bill takes effect June 1, 2016.

Fiscal Summary

State Effect: Beginning in FY 2017, general fund expenditures increase by \$104,000 due to P-TECH school grants; the Governor’s proposed FY 2017 budget includes funding for this purpose. General fund expenditures escalate each year as additional P-TECH students enroll and then dually enroll, which increases State reimbursements for P-TECH dual enrollment costs (beginning in FY 2018), community college funding formulas (beginning in FY 2020), and K-12 funding formulas (beginning in FY 2022), as discussed further below. The fiscal impact is not fully reflected in general fund expenditures until FY 2024.

This bill establishes mandated appropriations beginning in FY 2018.

(in dollars)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Higher Ed Rev.	\$0	\$63,200	\$227,900	\$728,800	\$1,868,400
GF Expenditure	\$104,000	\$318,300	\$709,700	\$1,627,800	\$3,568,900
Higher Ed Exp.	\$0	\$63,200	\$227,900	\$728,800	\$1,868,400
Net Effect	(\$104,000)	(\$318,300)	(\$709,700)	(\$1,627,800)	(\$3,568,900)

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

Local Effect: Expenditures for local school systems that apply and are selected to establish a P-TECH school increase by a net total of \$104,000 in FY 2017. Beginning in FY 2018, local school systems expenditures for P-TECH dual enrollment costs increase by a net total of \$110,320. Likewise, local community college tuition and fee revenues from dually enrolled P-TECH students and expenditures increase beginning in FY 2018. Beginning in FY 2020, State aid to local community colleges increases by an estimated \$58,400 due to the Senator John A. Cade Funding Formula. Beginning in FY 2022, State aid to local school systems through the K-12 funding formula increases due to additional students.

Small Business Effect: The Administration has determined that this bill has minimal or no impact on small business (attached). The Department of Legislative Services concurs with this assessment.

Analysis

Bill Summary:

P-TECH Schools

A P-TECH school is a public secondary school selected by the Maryland State Department of Education (MSDE) that has received a certificate of approval from the Maryland Higher Education Commission (MHEC). A P-TECH school may be established as a separate unit within a school as a school within a school.

P-TECH School Grants

“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 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 total amount of funds appropriated under the bill may not exceed an amount adequate to fund four P-TECH schools for the number of students shown in **Exhibit 1**.

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

<u>Fiscal Year</u>	<u># of Students</u>	<u>Maximum State Appropriation for P-TECH School Costs</u>
2017	400	\$104,000
2018	800	208,000
2019	1,200	312,000
2020	1,600	416,000
2021	2,000	520,000
2022	2,400	624,000

Note: In fiscal 2023, and each year thereafter, the State will continue to fund a maximum of 2,400 P-TECH students.

Source: House Bill 464/Senate Bill 376 of 2016

MSDE must adopt regulations to carry out the bill that include specified information.

Dual Enrollment

“Dual enrollment costs” is defined as the following costs and fees associated with a dually enrolled P-TECH student:

- tuition;
- textbooks and other materials required for the community college courses;
- community college registration fees;
- transportation to and from the community college; and
- any other necessary fees related to the enrollment of the P-TECH student required by the community college.

A community college may not charge dual enrollment costs to a P-TECH student. Likewise, a local board of education may not charge a dually enrolled P-TECH student any dual enrollment costs. Instead, the local board of education must pay for the dual enrollment costs for each dually enrolled P-TECH student. MSDE must reimburse a local board of education for 50% of the dual enrollment costs for each P-TECH student. MSDE must adopt regulations that provide for a system of reimbursement for dual enrollment costs. A local board of education may enter into an agreement with a community college or amend an existing agreement with a community college for the payment of dual enrollment costs for P-TECH students.

Maryland State Department of Education and Maryland Higher Education Commission

By December 1 each year, MSDE and MHEC must report on the implementation of P-TECH schools in Maryland including specified elements. Beginning with the report due December 1, 2018, the report must include information on other school districts interested in P-TECH schools and whether funding should be expanded to include additional P-TECH schools.

Locally Established P-TECH Schools

The bill may not be construed to prohibit a local board of education from establishing a P-TECH school without the per pupil funding or the dual enrollment funding established under the bill. A P-TECH school established by a local board of education not funded under the bill is subject to the certificate of approval process of MHEC.

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 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 Non-P-TECH 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 waive the fee for students who are eligible for free and reduced-price meals.

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 other 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 is to have two of them located in schools in Baltimore City and two at schools in rural areas of the State. The Governor's proposed 2017 budget includes \$104,000 for P-TECH grants and \$600,000 to provide funds for planning grants to establish four P-TECH schools in Maryland.

On January 15, 2016, MSDE issued a [request for proposals \(RFP\)](#) from school systems in Western Maryland (Allegany, Garrett, or Washington counties) and the Eastern Shore (nine counties, including Cecil). According to the request, local school systems are eligible for the \$150,000 planning, contingent on the availability of funds. Eligible systems must partner with one or more higher education institutions and an employer. Proposals are due on March 15, 2016, with selection occurring in mid-April. According to the announcement accompanying the RFP, IBM, Johns Hopkins Health System, and Kaiser Permanente will partner with BCCC and the Baltimore City Public Schools through a direct memorandum of understanding for planning grants totaling \$150,000 per school, contingent on the availability of funds.

State and Local Fiscal Effect: The bill has numerous impacts on State general fund expenditures and on local expenditures, both for school systems and community colleges. It also affects community college revenues (including the State-run BCCC) through tuition and fees and State formula aid, as well as local school system revenues related to dual enrollment costs and State formula aid. The fiscal impacts phase in under the bill as P-TECH enrollment increases by 400 students each year from fiscal 2017 through 2022.

The Department of Legislative Services (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 community college aid formulas two years after they enroll. In addition, DLS assumed that all P-TECH students remain enrolled in high school for six years (as required under the dual enrollment provisions of the bill). Thus, the first year P-TECH students would increase the enrollment count for K-12 formulas is September 2020, which determines fiscal 2022 aid. All of these impacts continue to increase as the number of P-TECH students increases and the students move through their six-year program. After fiscal 2024, general fund expenditures (and related local revenues and expenditures) increase, based on increases in tuition and fees and other dual enrollment costs as well as increases in the State community college and K-12 funding formulas.

State Revenues: Annual tuition and fees for BCCC are \$2,980 for fiscal 2016; it is assumed that this increases by 3% annually. Thus, tuition and fees are estimated to be \$3,161 in fiscal 2018. Based on the assumption that 50% of the P-TECH students will be in Baltimore City, and the assumption that these students will take enough credits to be equivalent to 20 FTES in fiscal 2018, BCCC tuition revenues increase by \$63,220 in fiscal 2018. As explained below, BCCC revenues from the BCCC funding formula increase by \$158,614 in fiscal 2020. When the students are fully phased in through the funding formula in fiscal 2024, BCCC revenues increase by \$5.6 million per year. To the extent fewer students are enrolled in P-TECH schools, BCCC revenues will be less.

State Expenditures: Beginning in fiscal 2017, general fund expenditures increase by \$104,000 due to P-TECH school grants; the Governor's proposed fiscal 2017 budget includes \$104,000 for this purpose. Beginning in fiscal 2018, general fund expenditures also increase by an estimated \$110,320 to pay 50% of P-TECH dual enrollment costs. Beginning in fiscal 2020, general fund expenditures further increase by an estimated \$217,000 due to the dually enrolled P-TECH students counting in the Senator John A. Cade and BCCC funding formulas. 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. The maximum number of P-TECH students for which funds will be appropriated is specified in the bill (Exhibit 1). For the purposes of this estimate, it is assumed that the maximum number of P-TECH students is funded each year. Thus, the State appropriates \$104,000 for P-TECH students in fiscal 2017, and the Governor's proposed fiscal 2017 budget includes \$104,000 for this purpose. The maximum number of students funded increases by 400 each year until fiscal 2022, when the State will appropriate a maximum of \$624,000 for 2,400 students each year.
- Under the bill, MSDE must reimburse a local board of education for 50% of the dual enrollment costs for each P-TECH student. The amount for this reimbursement

is based on the fall 2015 tuition and fees, estimated books and supplies cost from the community college's net price calculator, and an assumed transportation and other costs fee of \$500 per student. It is estimated that P-TECH dual enrollment costs in fiscal 2016 are \$5,919 per FTES on average at the Western Maryland and Eastern Shore colleges and \$4,480 per FTES at BCCC. These costs are assumed to increase by 3% per year.

- For the purposes of this estimate, it is assumed that the number of FTES attending community colleges are as shown in **Exhibit 2**. Based on that assumption and the assumptions about dual enrollment costs, in fiscal 2018, State general fund expenditures increase by \$62,800 for local community colleges and by \$47,520 for BCCC, for a total of \$110,320. General fund expenditures for dual enrollment costs increase by \$3.5 million in fiscal 2022 for a total of 1,140 FTES when the number of students is fully phased in.

Exhibit 2
Assumed Number of Additional FTES at Community Colleges
Fiscal 2018-2022

<u>Fiscal Year</u>	<u>BCCC FTES</u>	<u>Local Community College FTES</u>
2018	20	20
2019	70	70
2020	170	170
2021	370	370
2022	570	570

BCCC: Baltimore City Community College
 FTES: Full-time equivalent students

Source: Department of Legislative Services

- Beginning in fiscal 2020, general fund expenditures increase by an estimated \$216,983, due to the Senator John A. Cade and BCCC funding formulas from the P-TECH students enrolled in fall 2017 (fiscal 2018). The total State cost for the community college funding formulas increases by \$7.9 million in fiscal 2024 for 1,140 FTES, when the number of students is fully phased in, in fall 2021 (fiscal 2022).
- General fund expenditures for the K-12 funding formula increase by an estimated \$2.5 million in fiscal 2022 and by \$5.0 million in fiscal 2023, due to 400 additional

students in the K-12 funding formula in fall 2020 and 800 additional students in the K-12 funding formula in fall 2021. The additional students are due to the P-TECH students in the fifth and sixth year of the program being included in the K-12 funding formula.

- It is assumed that BCCC expenditures increase due to additional enrollment and revenues from tuition fees and the BCCC funding formula.
- Total estimated State expenditures (not including any BCCC expenditures) through fiscal 2024 are shown in **Exhibit 3**.
- To the extent fewer students are enrolled in P-TECH schools, general fund expenditures will be less.

Exhibit 3
Total State P-TECH Expenditures
Fiscal 2017-2024
(\$ in Thousands)

	<u>FY</u> <u>2017</u>	<u>FY</u> <u>2018</u>	<u>FY</u> <u>2019</u>	<u>FY</u> <u>2020</u>	<u>FY</u> <u>2021</u>	<u>FY</u> <u>2022</u>	<u>FY</u> <u>2023</u>	<u>FY</u> <u>2024</u>
50% Dual Enrollment Costs LCC		\$63	\$226	\$566	\$1,269	\$2,014	\$2,075	\$2,137
50% Dual Enrollment Costs BCCC		48	171	429	961	1,524	1,570	1,617
50% P-TECH School Costs	104	208	312	416	520	624	624	624
Cade Formula				58	229	618	1,489	2,362
BCCC Formula				159	590	1,523	3,517	5,580
K-12 Formulas						2,457	5,044	5,144
Total State Expenditures	\$104	\$318	\$710	\$1,628	\$3,569	\$8,761	\$14,318	\$17,465

LCC: local community college
 BCCC: Baltimore City Community College
 P-TECH: Pathways in Technology Early College High

Note: Numbers may not sum to total due to rounding.

Source: Department of Legislative Services

Future year expenditures after fiscal 2024 increase due to increases in the K-12 and community college funding formulas and increases in dual enrollment costs.

Local Revenues: Beginning in fiscal 2018, local community college tuition and fee revenues from dually enrolled P-TECH students and expenditures increase by an estimated

\$81,420. When the students are fully phased in, in fall 2021 (fiscal 2022), local community college tuition and fee revenues increase by \$2.6 million per year; out-years reflect 3% annual increases.

Beginning in fiscal 2020, State aid to local community colleges increases by an estimated \$58,370 due to the Senator John A. Cade Funding Formula. When the students are fully phased into the formula in fiscal 2024, local community college revenues increase by a total of \$2.4 million.

To the extent fewer students are enrolled in P-TECH schools, local community college revenues will be less.

Local Expenditures: Expenditures for local school systems that apply and are selected to have P-TECH schools increase by a total of \$104,000 in fiscal 2017 (net of the State share of the P-TECH school grants). According to the bill, local school systems are responsible for 50% of P-TECH school grants. The maximum *number* of students funded increases by 400 each year until fall 2021 (fiscal 2022), when local school systems will be responsible for \$624,000 for 2,400 students.

Beginning in fiscal 2018, local school systems expenditures for P-TECH dual enrollment costs increase by a total of \$110,320 (net of the State's 50% reimbursement of dual enrollment costs). This increases to a total net cost for dual enrollment of \$3.5 million in fiscal 2022 for 1,140 FTES, when the number of students is fully phased in.

It is assumed that local community college expenditures increase due to additional enrollment and revenues from tuition and fees and the Senator John A. Cade Funding Formula.

To the extent fewer students are enrolled in P-TECH schools, local school system and local community college expenditures will be less.

It is assumed that local school system maintenance of effort requirements are not affected; however, to the extent that they are affected, local school system expenditures increase in future years.

Additional Comments: The bill defines a P-TECH school as a public secondary school that receives a certificate of approval from MHEC. However, under Section 11-202 of the Education Article, certificates of approval are only given to *postsecondary* institutions of higher education.

Additional Information

Prior Introductions: None.

Cross File: SB 376 (The President, *et al.*) (By Request - Administration) - Education, Health, and Environmental Affairs and Budget and Taxation.

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

Fiscal Note History: First Reader - February 24, 2016
min/rhh

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