

Working Group 3

College and Career Readiness Pathways

Revised Cost Estimates

December 6, 2018

Working Group 3 – College and Career Readiness Pathways

Element 3d: Develop alternative educational approaches for students in middle school and early high school who are not likely to meet the CCR standard by the end of 10th grade that gives them extra time and more supports to help them meet that standard as soon as possible.

Cost: [The bulk of the costs associated with Element 3d will be accounted for under the Elements for Work Group 2 \(additional teacher time to work with low-performing students\) and Work Group 4 \(additional resources for compensatory education, concentration of poverty, and special education\).](#)

MSDE and/or local school systems may incur some one-time costs to develop and implement alternative educational approaches, but implementation of those programs is expected to occur within the normal school day structure.

Element 3e: Students who reach CCR by the end of 10th grade will choose from among four pathways for the remaining two years of high school:

1. A college preparatory pathway that includes completion of one of the following: the Advanced Placement (AP) Capstone program, the International Baccalaureate (IB) program, or the Cambridge Diploma program;
2. Dual enrollment in a public postsecondary institution that allows the student to earn up to an Associates' degree at no cost to the student;
3. A rigorous career and technology education (CTE) program that leads to an industry-recognized credential that provides entry to a challenging career; or
4. A fourth pathway developed by the student (in consultation with a guidance counselor) that blends elements of some or all of the other three pathways.

Baseline: In SY 2016-2017, almost 16,500 graduating seniors (28.5%) completed a rigorous high school program (as defined by the Maryland Report Card), and almost 17,900 (30.9%) enrolled in a selective college or university.

In SY 2016-2017, approximately 59,300 Maryland high school students (about two-thirds are juniors or seniors) took at least one AP exam, with an average of two exams per student.

In fiscal 2018, average community college tuition for a full-time student (30 credits) is approximately \$3,500 (\$350 for a single three-credit course); average student fees are approximately \$810 (full-time).

In SY 2016-2017, an average of about 7,600 high school students were dually enrolled in a Maryland community college in *each* semester (Fall/Spring). It is assumed that virtually all of these students were high school seniors. Although data on course enrollments by these students is not available, it is further assumed that each dually enrolled student took an average of two courses per year (one per semester).

In SY 2016-2017, 12,990 graduating seniors (22.5% of all graduates) completed a CTE program, but only about 4,500 graduating seniors (7.9%) earned an industry-recognized credential as part of their CTE program. Annual State/local expenditures (not including federal funds) for CTE programs is \$8,500 per CTE completer.

Assumptions:

Overarching Assumption: The implementation of alternate pathways for students achieving the college and career readiness standard is fundamentally a paradigm shift for how high schools should serve their students. It does not fundamentally alter the number of students to be

served (as is the case for Workgroup 1), and therefore does not require a significant increase in the number of teachers (as is the case for Workgroup 2). Rather, it generally involves the reallocation of existing human and financial resources to better serve the current population of high school students, which is projected to grow only modestly in size over the 10 year implementation period. This is not to say that there are no costs associated with this shift, as existing programs will need to expand and new programs will need to be established. It only means that the root cause of added costs associated with the implementation of the pathways is not about doing more things for more students, but rather it is about doing things differently for roughly the same number of students.

The funding model should not create incentives for local school systems to favor some pathways over others.

Each of the pathways already has established infrastructure on which to build (e.g., existing CTE programs; a substantial array of available AP courses and IB programs; dual enrollment arrangements with local colleges).

Students will have an opportunity to achieve CCR in English 10 and Algebra prior to the end of 10th grade, and students who are not CCR will be able to take some AP/introductory CTE courses prior to achieving CCR until the Commission's recommendations are fully implemented (as recommended by Working Group 3)

The incremental cost of providing Pathways 1, 3, and 4 (college preparatory, CTE, and the blended pathway) is therefore the cost of the training, administration, examination fees, program fees, and other related costs necessary to implement and/or expand each program (Pathway 3—dual enrollment—is discussed below).

\$1,000 per student who achieves the CCR standard by grade 10 (\$2,000 over a CCR student's final two years of high school) covers the cost of implementing the various pathways.

--The average cost of implementing AP/IB/Cambridge programs for 200 students (100 juniors and 100 seniors) in a high school in SY 2017-2018 is approximately \$850 per student.

--The incremental cost of implementing a rigorous CTE pathway may involve (1) developing/implementing new CTE pathways to replace those that do not provide an industry-recognized credential in a priority industry; (2) upgrading existing pathways that may not be sufficiently academically rigorous; and (3) expanding workplace learning/apprenticeship opportunities. The cost of these items (e.g., teacher training, credentialing exam fees, transportation) cannot be reliably estimated but are assumed to approximate the cost of implementing the AP/IB/Cambridge programs.

\$1,000 per CCR student (or \$2,000 over a CCR student’s final two years of high school) covers the cost of five community college courses-- including tuition, fees, and books—which represents an increase of three courses over the current average per student. This will benefit students in Pathway 4 who wish to take some dual enrollment classes as part of their blended pathway, as well as CTE students (Pathway 3) who pursue pathways that are articulated with local community colleges.

CCR funding for dual enrollment students is not sufficient to achieve the commission’s goal of allowing students to earn an Associate’s degree (typically 60 credits) in two years at no cost to the student, which would cost in excess of \$9,000 in tuition, fees, and books over two years. However, since students who elect to pursue an AA degree while in high school will spend most of their time in dual enrollment/college courses and very little time in traditional high school courses, high schools will incur minimal costs for these students. Therefore, the cost for students who wish to pursue this pathway involves a shifting of costs rather than additional total costs. Students who pursue an Associate’s degree through dual enrollment will remain officially enrolled as a full-time student in high school (as long as their college courses also count for high school credit), but will likely take all their academic courses at the postsecondary institution. Local school systems will pay up to 75% of those students’ tuition and all fees/books using foundation formula dollars. Since per-pupil foundation funding amounts well exceed 75% of annual tuition plus fees/books for a full-time community college student, local school systems will still retain a substantial portion of their foundation amounts (plus the additional funding provided for CCR students) even though those students are not taking any (or only very few) classes at the high school.

As the proportion of students participating in dual enrollment increases, it may create surplus teaching capacity that can be reallocated to other pathways or alternative educational approaches.

Staff Recommendation:

[Funding should be linked to the actual number of students who achieve the CCR standard by the end of 10th grade \(or later\) in each fiscal year. Based on the availability of assessment data, this will create a one-year lag in funding levels, but should still provide sufficient funds to meet the needs of students who achieve CCR each year.](#)

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
Not Applicable	\$43,691,767 <u>\$42,817,932</u>	\$62,464,626 <u>\$57,467,455</u>	\$90,186,125 <u>\$82,069,374</u>

Element 3g: Develop 11th and 12th grade programs for students who do not meet the CCR standard by the end of 10th grade.

Baseline: Transition courses currently exist for students who are not CCR by the end of 11th grade, which are primarily delivering remedial education similar to what community colleges provide to students who are not ready for credit-bearing courses when they enroll.

Assumptions: The programs will be more applied, experiential, and “hands on” than typical high school courses. They may be similar to, or even the same as, introductory CTE courses that are enhanced to provide greater proficiency in literacy and numeracy skills.

Programs for students who do not reach the CCR standard by the end of 10th grade may look similar to the college-prep and/or CTE pathways (although tailored to students’ learning needs), but will be less expensive to implement because they do not have the same program and testing fees as the CCR pathway programs.

MSDE may incur some costs to develop these programs, which can then be disseminated to high schools in the State.

Staff Recommendation:

Provide \$500 for each student (in grades 11 and 12) who does not achieve the CCR standard. Funding for this element decreases over time as more students are assumed to achieve the CCR standard (with increases in funding for Element 3e).

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
<u>Not Applicable</u>	<u>\$42,817,932</u>	<u>\$33,730,898</u>	<u>\$22,095,601</u>

Element 3j: Every middle and high school student should have ready access to individuals who can counsel and advise them on CTE pathway options and help them navigate among the available and emerging opportunities.

Baseline: Guidance counseling services are already stretched thin in virtually all middle and high schools, so there is not capacity to provide these services with current staffing levels.

In SY 2017-2018, the median salary in the State for a guidance counselor was \$75,780; the first quartile salary was \$62,901.

In SY 2017-2018, there were 212 middle schools, 180 high schools, and 93 combined schools (which are assumed to be K-8 schools).

Assumptions: Each middle and high school will have a professional career counselor to provide the counseling services that are envisioned.

Most career counselors hired will be new counselors.

Health, retirement, and other benefits are estimated to be 15% of salaries/wages.

This level of funding could be made available through grants to LEAs and/or community colleges or other partners to provide career counseling as recommended by working group 3.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
	\$35,083,033	\$35,083,033	\$35,083,033
	<u>\$45,011,516</u>	<u>\$45,011,516</u>	<u>\$45,011,516</u>

Element 3k: CTE instruction will take place in two kinds of high schools: Comprehensive CTE High Schools and regular comprehensive high schools. Existing Career and Technology Centers will transition into Comprehensive CTE High Schools as resources become available.

Baseline: Six local school systems operate 14 comprehensive CTE high schools as envisioned by the workgroup (in which all students participate in a CTE pathway). However, 14 school systems operate 16 CTE centers that serve students from multiple high schools. The remainder of CTE programs are located in traditional comprehensive high schools, where only a portion of students participate in CTE.

Assumptions: Local school systems will need to build new comprehensive CTE high schools and/or convert existing high schools to comprehensive CTE high schools. Local school systems with CTE centers will need to close/convert those centers.

Staff Recommendation: Allow CTE instruction to be provided in existing and/or new CTE centers in addition to comprehensive high schools. The cost of replacing or converting existing centers to comprehensive high schools is prohibitive and not an efficient use of resources for smaller school systems.

Cost: No cost if the staff recommendation is adopted. Otherwise, it will cost at least \$80-100 million to remodel each existing center and/or build each new comprehensive high school (which may also diminish facility utilization rates in some local school systems).

Cost Estimates for Workgroup 3 CCR Pathways

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Enrollment (projected)	873,835	879,747	885,532	888,811	892,352	894,476	894,734	897,088	899,464	901,861	
11th & 12th Grade Est. Enr.* (14% of total)	122,337	123,165	123,975	124,434	124,929	125,227	125,263	125,592	125,925	126,261	
\$ per CCR student	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
\$ per non-CCR student	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
% CCR (11th and 12th)	30%	34%	38%	42%	46%	50%	54%	58%	62%	65%	
% non-CCR (11th and 12th)	70%	66%	62%	58%	54%	50%	46%	42%	38%	35%	
Element 3e (CCR)	\$36,701,084	\$41,875,960	\$47,110,323	\$52,262,104	\$57,467,455	\$62,613,346	\$67,641,853	\$72,843,505	\$78,073,432	\$82,069,374	
Element 3g (11th & 12th non-CCR)	\$42,817,932	\$40,644,314	\$38,432,105	\$36,085,739	\$33,730,898	\$31,306,673	\$28,810,419	\$26,374,373	\$23,925,729	\$22,095,601	
Secondary Schools	485	485	485	485	485	485	485	485	485	485	485
Counselor Annual Salary	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795	\$70,795
Fringe Benefits (15%)	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619	\$10,619
Health Insurance	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393	\$11,393
Element 3j (career counselors)	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516	\$45,011,516

***Calculation of estimated 11 and 12 Enrollment**

	2012	2013	2014	2015	2016	2017
11th Grade Actual	60,657	59,835	59,717	59,193	60,991	60,338
12th Grade Actual	59,978	59,114	58,624	58,493	58,303	60,187
Total K-12 Enrollment	821,106	823,452	827,999	834,524	842,229	845,861
% of Total Enrollment	15%	14%	14%	14%	14%	14%