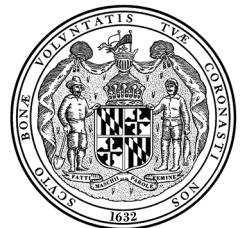


MARYLAND COMMISSION ON INNOVATION & EXCELLENCE IN EDUCATION

Interim Report

January 2019



Maryland Commission on Innovation & Excellence in Education

Interim Report

January 2019

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Commission on Innovation and Excellence in Education

William E. Kirwan
Chair

January 25, 2019

The Honorable Lawrence J. Hogan, Jr.
Governor of Maryland

The Honorable Thomas V. Mike Miller, Jr.
President of the Senate

The Honorable Michael E. Busch
Speaker of the House

Gentlemen:

On behalf of the Commission on Innovation and Excellence in Education, I am pleased to transmit to you the Commission's Interim Report.

The Commission was established pursuant to Chapters 701 and 702 of 2016. While the Commission has a comprehensive charge detailed in the law, in essence our charge has two parts:

- review and recommend any needed changes to update the current education funding formulas (known as the Thornton formulas); and
- make policy recommendations that would enable Maryland's preK-12 system to perform at the level of the best-performing systems in the world.

In January 2018, the Commission issued a report with its preliminary policy recommendations grouped into five policy areas: (1) early childhood education; (2) high-quality teachers and leaders; (3) college and career readiness pathways, including career and technical education; (4) more resources to ensure all students are successful; and (5) governance and accountability. During the 2018 interim, the Commission determined that in order to finalize its policy recommendations, the cost of those recommendations needed to be evaluated so that they could be properly folded into funding formula recommendations.

The Commission and its four working groups (for the first four policy areas) held numerous meetings with opportunities for public input throughout the 2018 interim. The fifth policy area was discussed

by the full Commission. During these meetings commission members refined the preliminary recommendations by making specific design assumptions and implementation decisions. Using this information, staff and consultants were able to estimate the cost of the Commission's policy recommendations.

The report submitted to you today contains the final policy recommendations adopted by the Commission as well as the cost estimates associated with those policy recommendations. Additionally, the Commission identified areas of cost savings that would result from redesigning Maryland's education system to produce a net cost estimate. The report also identifies the preliminary work of the Commission on revising the funding formulas. However, work remains to finalize the funding formulas.

Due to the extensive time devoted to finalizing policy recommendations and the complexities of the cost estimating process, as well as correspondence from the General Assembly's Presiding Officers indicating it would be very difficult for the Legislature to consider both policy recommendations and funding formulas in the 2019 legislative session, the Commission's charge will be extended in order to complete its work in 2019. The Commission will resume its work after the 2019 legislative session and task a small group to work over the summer to review and develop formula recommendations to distribute the costs of implementing the policy recommendations between the State and local governments. These recommendations will be considered by the full Commission in fall 2019.

Although the Commission's work is not complete, there are some actions that the Commission believes could be taken in the 2019 legislative session to advance the Commission's final policy recommendations. These actions are included in this report, which include an extension of the Commission's deadline to December 2019 so that we can complete our work on the funding formulas.

The Commission members and I look forward to the submission of our final report to you later this year. Based on the work we have already done, we are confident that our report, if implemented with fidelity, would enable Maryland to develop a school system that performs for the benefit of the State and its students at the level of the best-performing systems in the world.

Sincerely yours,

A handwritten signature in black ink, appearing to read "WE Kirwan".

William E. Kirwan
Chair

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Chancellor Emeritus, University System of
Maryland

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Secretary of Budget and Management

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Interim Report

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A Call to Action:

Building a World-class Education System in Maryland

When the Governor and General Assembly created the Commission on Innovation and Excellence in Education, they recognized that the fate of our State and the opportunities it creates for our children and grandchildren to enjoy successful careers and rewarding lives depends on the quality, equal access, and effectiveness of preK-12 education in every zip code across the State.

The Commission's charge also showed that State leaders understand that in today's interconnected, global economy, the benchmark for education quality is not just what is happening in the top-performing states in this country but also in countries around the world where students are greatly outdistancing ours, achieving at higher levels and with much more equity in outcomes. That is why State leaders asked the Commission to develop new policies, implementation strategies, and updated funding formulas with a strong accountability system that will enable *all* Maryland schools – and schoolchildren – to perform at the level of the world's top education systems.

Given that charge, the Commission began its work by asking: Where are Maryland schools today? We were surprised to learn that in terms of student learning outcomes, we are neither where we thought we were nor where we need to be. To be sure, this State has many fine schools and outstanding teachers, as well as a deserved reputation for innovation, such as being among the first states to provide half-day pre-school for four-year-olds and broader access to Advanced Placement courses for high schoolers. Such smart moves were a major reason why some national rankings placed

Where are Maryland schools today? We were surprised to learn that in terms of student learning outcomes, we are neither where we thought we were nor where we need to be.

Maryland's education system at or near the top for several years. However, the real test for the quality of a school system is what its students are actually learning. On this measure, the picture for Maryland in 2019 is not nearly so bright.

The National Assessment of Educational Progress provides learning outcomes for fourth and eighth graders across the United States in reading and math every two years. In the most recent cycle, Maryland placed near or below the middle in both subjects and at both grade levels. Worse, Maryland was the only state to see scores drop – on all the tests – between 2013 and 2015. That would be bad enough if the United States was a world leader in preK-12 education, but it is not. On the latest round of Programme for International Student Assessment, a highly respected international exam measuring 15-year-old student learning in math, reading, and science, American student performance placed well down in the second quartile among students from 72 countries.

These data forced the Commission to face the inescapable truth: when it comes to actual student learning, Maryland schools perform at a mediocre level in a country that performs at a mediocre level internationally.

But that is not the only troubling fact that Commissioners learned. Like most other states, Maryland has glaring gaps in student achievement based on income, race, and other student subgroups. Less than half of kindergarteners are entering school ready to learn, and fewer than 40% of students are graduating from high school truly “college and

career ready.” These troubling realities are not restricted to specific jurisdictions. There are underperforming schools and underserved students in each of Maryland's 24 school districts. This is unacceptable in a state like ours with substantial means; and it is short-sighted, since the State's future depends on the quality of education all of our students receive.

We also learned of the State's big teacher shortages, especially in science and mathematics, and that schools must recruit over half of their new teachers each year from outside the State. Finally, much to our surprise, we learned that several national studies show Maryland to be “regressive” in its school funding, which means, in effect, that our school finance system is unfair to poor communities and the children who live in them.

Surely we can and must do better on all these dimensions. But to do better, Maryland needs a roadmap for creating an education system that learns from the world's best but can work in Maryland based on our context and needs. That is precisely what the Commission has done.

Toward that end, Commission members, staff, and consultants have labored long and hard with the benefit of marvelous input and feedback from across the State. We benefited, too, from the expertise of the National Center on Education and the Economy (NCEE), which has spent the past two decades doing careful research on the distinguishing features of the world's best school systems. Through this research, NCEE has identified what it calls the “building blocks” of high-performing systems. These top performers can be found in

different regions of the world; they operate under different forms of government; they have different cultures and traditions; and many are as demographically diverse as Maryland. But when it comes to their school systems, they exhibit remarkable consistency in using the building blocks that NCEE identified and the results speak for themselves.

With NCEE's support, the Commission did an extensive and rigorous “gap analysis,” comparing Maryland's present policies and practices with four high-performing international systems and with the states of New Jersey, New Hampshire, and Massachusetts. Based on that analysis, the Commission developed recommendations in five key policy areas:

1. **Investing in High-quality Early Childhood Education and Care:** Significant expansion of full-day pre-school, to be free for all low-income three- and four-year-olds, so that all children have the opportunity to begin kindergarten ready to learn;
2. **Elevating Teachers and School Leaders:** Raising the standards and status of the teaching profession, including a performance-based career ladder and salaries comparable to other fields with similar education requirements;
3. **Creating a World-class Instructional System:** An internationally benchmarked curriculum that enables most students to achieve “college- and career-ready” status by the end of tenth grade and then pursue pathways that include early college, Advanced Placement courses, and/or a rigorous technical

education leading to industry-recognized credentials and high-paying jobs;

4. **Providing More Support to Students Who Need It the Most:** Broad and sustained new support for schools serving high concentrations of students living in poverty, with before-and after-school and summer academic programs and student access to needed health and social services, and increased support for English learner and special education students; and

5. **Ensuring Excellence for All:** An accountability-oversight board that has the authority to ensure that the Commission's recommendations are successfully implemented and produce the desired results.

Changes of this magnitude will require much effort, take substantial time, and require a significant increase in funding. The Commission has developed a 10-year phase-in plan that, when fully implemented in 2030, will cost an additional \$3.8 billion (combined State and local) annually. That amount averages out to less than 3% more per year or a 30% increase over current projected expenditures by 2030. While the increase is significant, the cost of not moving Maryland from its present status – “mediocre with bright spots” – to world class will ultimately prove far greater.

Residents of this State – parents and taxpayers especially – have every reason to ask, what precisely are the benefits from such an investment? Research demonstrates that as a society's education level rises, crime and health care costs decline, the cycle of

inter-generational poverty begins to break, civic engagement improves, and family structures are strengthened. A recent study in Pennsylvania showed that a high school dropout consumes \$2,700 in public health insurance versus just \$170 for a college graduate. Our prisons, too, are disproportionately populated with high school dropouts. The National Institute of Justice estimates that incarceration drains \$450 billion from the U.S. economy annually.

That is not all. As education and skill levels rise, so do personal income and the quality of life. Businesses are more prosperous because they are able to more easily recruit a workforce with the necessary talent and skills in the ever increasing sophistication of the modern workplace.

The Commission's recommendations are carefully constructed to produce exactly these benefits. Investing in full-day pre-K will greatly increase the proportion of students who come to school ready to learn. A top-notch curriculum, coupled with greater resources and timely interventions and support for students who need them most, including schools serving concentrations of students living in poverty, plus a highly qualified professional teaching corps, will ensure the vast majority of students are on track to be college and career ready by the end of tenth grade. The exciting pathways that follow during the eleventh and twelfth grades will enable most students to leave high school with significant college credit – even an associate's degree – or a skill that is immediately valued in the workplace. And, importantly, the recommendations include an independent

While the increase is significant, the cost of not moving Maryland from its present status – “mediocre with bright spots” – to world class will ultimately prove far greater.

accountability process with the authority to ensure the desired results are achieved for all our students.

That is the future Maryland can have if it embraces the Commission's recommendations. But they must be embraced in their entirety. They are an interdependent and synergistic package of recommendations that will not produce the desired benefits if they are broken apart and selectively implemented.

One piece of work remains for the Commission and that is to recommend a fair distribution of the costs of the Commission's recommendations between the State and its 24 local jurisdictions. Leaders of the General Assembly have said the Legislature cannot address both the scope of the policy changes recommended by the Commission and the distribution of costs within a single 90-day session. So they have asked the Commission to continue its work and make funding

recommendations in fall 2019, which it will do. In the meantime, much can be accomplished during the present legislative session. The State has wisely set aside up to \$325 million that could be allocated to "jump start" the Commission's recommendations and the Commission is making recommendations on how these resources should be allocated for fiscal 2020. The legislature can also endorse the Commission's policy recommendations and set aside funding this session for fiscal 2021, the first year of the Commission's 10-year plan.

The Commission's recommendations create for Maryland a once-in-a-generation opportunity to set a bold course and create a bright future for the State and its citizens. The question that remains is, does the State have the will, discipline, and persistence required to make it happen? We believe it must. Nothing less than the future well-being of our State and its citizens is at stake.

Chapter 1:

Background on Commission's Work

Commission's Charge and Preliminary Report

Chapters 701 and 702 of 2016 established the Commission on Innovation and Excellence in Education to, among other charges, (1) review the findings of a consultant's study on adequacy of education funding and its related studies and make recommendations on the funding formula; (2) review and make recommendations on expenditures of local education agencies; (3) review and make recommendations on innovative education delivery mechanisms and other strategies to prepare Maryland students for the 21st century workforce and global economy; and (4) review and make recommendations on expanding prekindergarten, including special education prekindergarten. The Commission began meeting in September 2016 with former University System of Maryland Chancellor Dr. William "Brit" Kirwan appointed to serve as chair of the Commission.

During 2016, the Commission reviewed multiple reports including the *Cost of an Adequate Education* and related reports prepared by consultants Augenblick, Palaich, and Associates (APA). The Commission determined that before it could focus on funding, it must first decide on what policies to recommend to make Maryland's education system world class. In January 2017, the Commission asked the National Center on Education and the Economy (NCEE) to perform a gap analysis to compare Maryland's education system to systems in top-performing countries and states. The gap analysis was designed to help identify policy priorities and implementation strategies for the Commission to consider in conjunction with changes to the State education formulas. The resulting gap analysis performed by NCEE based on its *9 Building Blocks for World-Class Education Systems* was published as the Commission's 2017 Technical Supplement (<http://bit.ly/PrelimTechSupp>). The building blocks represent policy areas that Maryland should pursue to achieve student outcomes that are comparable to those in top-performing systems.

After reviewing the NCEE gap analysis and holding 13 meetings and four public hearings in 2017, the Commission requested an extension to continue its work. The Commission determined that in order to finalize its policy recommendations, the cost of those recommendations needed to be evaluated so that they could be properly folded into funding formula recommendations. However, the Commission was still able to reach consensus on major policy areas. In January 2018, the Commission issued a report with 59 preliminary policy recommendations with the building blocks grouped into five policy areas. In the preliminary report (<http://bit.ly/PrelimRpt>), the Commission requested an additional year in order to fully respond to its charge and included a legislative proposal for the 2018 legislative session to advance the Commission's preliminary policy recommendations.

Accordingly, Chapter 361 of 2018 extended the deadline for the Commission to complete its work to December 31, 2018. It also established and altered several programs and mandated funding for them, consistent with many of the preliminary policy recommendations detailed in the January 2018 report, and established a special fund consisting of \$200 million in income tax revenue that must be deposited in the

fund in fiscal 2019 for use in a future fiscal year to implement the Commission's final recommendations.

Commission's Work in 2018 Interim

Beginning in April 2018, the Commission divided into four working groups based on the following policy areas: (1) early childhood education; (2) high-quality teachers and leaders; (3) college and career readiness pathways (plus a subgroup on Career and Technical Education (CTE)); and (4) more resources to ensure all students are successful. A fifth policy area related to governance and accountability was evaluated by the full Commission. Working with staff, consultants, and other experts, each working group developed further specificity around the assumptions, policy decisions, and implementation considerations necessary to cost out the fiscal impact of the preliminary recommendations. As shown in the chart below, the four working groups met multiple times throughout the spring and summer and into the fall, with stakeholder involvement and participation at each working group meeting. The roster for each working group, including moderators and members of the CTE subgroup, are shown in Appendix 5.

The full Commission held 16 meetings in the 2018 interim. On many of the dates, the full Commission met in the morning and members divided into the working groups during the afternoon session. Throughout this period the Commission also refined its recommendations for a governance and accountability system to ensure that the Commission's policy recommendations are implemented with fidelity and achieve the expected results. In November 2018, the Commission held a public hearing where 77 parents, teachers, students, and other members of the public testified on the work of the Commission and proposed strategies to transform Maryland into a world-class education system. The chart below indicates how many times the full Commission and each working group met during the 2018 interim. The agenda for each full Commission meeting is available in Appendix 4, and links to the meeting materials for each full Commission and working group meeting are available on the Commission's website (<http://bit.ly/MDCCommission>).

Commission Meetings 2018 Interim

Date	Full Commission	Working Group 1	Working Group 2	Working Group 3	CTE	Working Group 4
4/26/2018	✓	✓	✓	✓		✓
5/17/2018	✓	✓	✓	✓	✓	✓
5/29/2018					✓	
6/14/2018			✓			
6/21/2018				✓	✓	
6/28/2018	✓	✓		✓		✓
7/12/2018		✓			✓	
7/13/2018	✓		✓	✓		✓
7/25/2018		✓	✓			
7/26/2018				✓		
8/8/2018			✓			
8/9/2018						✓
8/15/2018	✓	✓	✓	✓		✓
8/23/2018	✓			✓		✓
9/5/2018	✓		✓			
9/14/2018			✓			
9/17/2018			✓			
9/19/2018		✓				
9/21/2018	✓			✓		✓
10/10/2018	✓					
10/16/2018			✓			
10/22/2018			✓			
10/26/2018				✓		
10/31/2018	✓					
11/14/2018	✓					
11/29/2018	✓					
12/6/2018	✓					
12/13/2018			✓			
12/18/2018	✓					
12/19/2018	✓					
1/18/2019	✓					
Total	16	7	13	10	4	8

Starting in September 2018, each working group presented their policy recommendations to the full Commission and received feedback and comments from the other Commission members and stakeholder groups. After another round of working group meetings to consider changes to their recommendations based on the feedback, the working groups presented their recommendations to the full Commission for approval. The final recommendations, including governance and accountability, are discussed in detail in Chapter 4.

In order to fully address a critical piece of its charge, to ensure equity in both funding and student outcomes, the Commission hired an equity consultant, Dr. Ivory A. Toldson, to review the working groups' recommendations and make any suggestions to further address education equity, particularly related to racial disparities. Chapter 3 discusses the Commission's focus on, and approach to, closing the gaps and ensuring educational equity for all of Maryland's students.

Once the policy recommendations were finalized, using the design assumptions and implementation decisions approved by the Commission, staff and consultants estimated the costs of implementing each policy recommendation, with the ultimate goal of translating the costs into funding recommendations. As discussed further in Chapter 5, the costing-out process took into account timelines for phasing in or phasing out certain programs over the 10-year implementation period, and potential administrative and infrastructure costs. It also considered overlaps, offsets, and potential savings across the policy recommendations. After the preliminary cost estimates were finalized, the Commission transitioned to transforming the costs into a potential funding formula for modeling purposes.

Commission Will Complete Its Work in 2019

Due to the extensive time devoted to finalizing policy recommendations and the complexities of the costing-out process, as well as correspondence from the General Assembly's Presiding Officers indicating it would be very difficult for the General Assembly to consider both policy recommendations and funding formulas in the 2019 legislative session, the Commission's charge will be extended in order to complete its work in 2019. The Commission will resume its work after the 2019 legislative session and task a small working group to work over the summer to review and develop formula recommendations to distribute the costs of implementing the policy recommendations between the State and local governments. These recommendations will be considered by the full Commission in fall 2019.

Chapter 2:

Closing Gaps: Starting Early, Continuing Support, and Lasting Results

Every student in Maryland should have access to educational experiences and opportunities that enable them to reach their full potential and be ready for success in college and a rewarding career by the end of high school.

From the beginning of its work, the Commission has been focused on addressing the needs of students who are falling behind – and who are being left behind by the current education system. Every student in Maryland should have access to educational experiences and opportunities that enable them to reach their full potential and be ready for success in college and a rewarding career by the end of high school. This is a fundamental premise of the Commission’s recommendations and a goal that Maryland is a long way from achieving. The Commission learned that student achievement gaps based on race, income, and learning disabilities, among other student subpopulations, persist. Once a student falls behind, it is even harder for the student to get back on track to success. As in other states, many Maryland students who fall behind are identified as requiring special education services, which is a label that often permanently sets lower expectations for these students. In Maryland about 12.5% of public school students receive special education services compared to less than half that amount in the top-performing systems in the world. Compared to many of the top-performing systems, Maryland (and the United States) has a much higher proportion of children and families living in poverty and fewer services and resources available to support them.

Close examination of Maryland student performance on the State’s current assessment of student proficiency, known as the PARCC exams, reveals just how great the challenge is in achieving equitable student outcomes in Maryland. According to data from 2017, just under half (49.3%) of all students taking the English 10 exam received a proficient score (at least 4 out of 5), indicating college and career readiness. Disaggregated data further illustrates how far we are from closing achievement gaps. While 67% of White students and 77% of Asian students scored proficient, only 29% of African American students and 34% of Hispanic students did so. And only 28% of low-income students (eligible for free or reduced-price meals (FRPM)) scored proficient compared to 62% of non-FRPM students. The gaps are significantly larger for English learners and special education students. All of these achievement gaps have widened since 2016. Similar results (although only 36.5% scored proficient) and even larger gaps are seen in the Algebra I PARCC exam.

The Commission also learned that the concentration of students from low-income families in schools affects not just the performance of those students but all students in the school.

The Commission also learned that the concentration of students from low-income families in schools affects not just the performance of those students but all students in the school. Statewide, 43% of Maryland students are FRPM eligible and considered low income, which is at or below 185% of the federal poverty level. In Maryland, about 4 out of every 10 public schools have 55% or more of its students from low-income families. Schools with concentrated poverty are located in all but one jurisdiction in the State. In 15% of all schools, 80% or more of students are from low-income families. While most of these schools with high concentrations of poverty (220 in total) are located in Baltimore City and Prince George’s County, there are such schools in 13 other counties in the State.

All of this is occurring in Maryland, which for over a decade has ranked among the highest (top five) household median income states in the United States. Though the

State is considered in this sense wealthy, as the data above suggests, there is wide variation in incomes, which results in enormous differences in student experiences, support, and opportunities. This has resulted not just in achievement gaps but in opportunity gaps for many of the State's children. From Baltimore City and Central Maryland to the Eastern Shore and the Western mountains, children live in the challenging circumstances resulting from concentrations of poverty, which include cross-generational poverty, neighborhoods and communities with chronically underperforming schools, underemployed or unemployed adults, high crime rates, substandard housing, and inadequate social and health care services. These families are disproportionately people of color and a growing number are non-English speaking. In many cases, their children are the very ones over-represented among students identified as having special academic and/or behavioral needs.

The Commission devoted much of its time and energy to developing a deep understanding of the critically important challenge of ensuring educational equity. In doing so, it benefitted greatly from presentations by leading local and national experts and submissions from national, State, and community organizations on the different experiences of children resulting from their economic, racial, ethnic, and community circumstances. This greatly heightened the Commissioners' understanding of and empathy for the lives of those segments of our citizens facing the most challenging circumstances.

As a result of its extensive efforts on this topic, the Commission has come to an inescapable conclusion: substantial and sustained improvement in Maryland's educational performance requires targeted attention to its lowest performing schools and an integrated set of reforms that will enable its most challenged students to achieve their true potential. One of the overarching principles of the Commission's recommendations is that the instructional system must be designed to quickly identify students who are falling behind grade level and provide the appropriate, individualized instruction and supports needed to get the student back on track for college and career readiness. Many of the Commission's recommendations, described in detail in Chapter 4, are designed to do just that. For example:

- in the short term, provide substantial additional resources for Transitional Supplemental Instruction, to address the needs of students in kindergarten through third grade who are not proficient/on track for college and career readiness;
- phase in high-quality, full-day prekindergarten at no cost to three- and four-year-olds from low-income families (and on a sliding scale for four-year-olds from higher income families) to enable children from economically challenging circumstances to begin kindergarten ready to learn like their peers from higher income families;
- increase teacher preparation requirements so that teachers are adequately prepared to identify students who are falling behind and to design instructional supports to get them back on track;

Substantial and sustained improvement in Maryland's educational performance requires an integrated set of reforms that will enable its most challenged students to achieve their true potential.

- redesign the school day so that teachers have the time to diagnose and deliver individualized supports to students who need them;
- provide additional resources for “at-promise” students, a term that acknowledges that low-income, English learner, and special education students have the potential to be successful if they are given needed supports and opportunities; and
- implement a new concentration of poverty grant to provide a community school coordinator and health services practitioner for every school with 55% or more of its students from low-income families and up to an additional \$3,265 per low-income student to provide support for all students in the school during the school day, before and after school, and/or during the summer.

This last recommendation acknowledges that many economically disadvantaged students are not receiving the critical social services, health care, behavioral/mental health, nutritional, and other needs that students from more affluent families receive as a matter of course. It also acknowledges that these students are living in neighborhoods where they experience traumas that are going untreated. While it should not be the school’s – or the school finance system’s – responsibility to provide these services, the Commission recognizes that students cannot learn properly if these needs continue to go unaddressed. For this reason, the Commission is also recommending:

- 30 new Family Support Centers, with the goal of ensuring there is at least one center in each county (including Baltimore City), to help young mothers living in struggling economic conditions get the pre and postnatal support they need; and
- 135 new Judy Centers across the State to provide early childhood education and family support services to students and families living in communities with Title I schools.

Over time, as the Commission’s recommendations are implemented, more students will enter school ready to learn and fewer students will fall behind, and if they do fall behind they will be identified more quickly and receive the additional instruction and supports to get back on track sooner.

The Commission firmly believes that, as its recommendations are phased in over time, priority must be given to implementing recommendations and allocating resources in low-performing schools and schools with high concentrations of students living in poverty. The Commission cannot overstate the importance of prioritizing these schools for the adoption of new policies and the allocation of additional resources, including additional teachers and the assignment of the most effective teachers to low-performing schools, where they are needed most to reduce achievement gaps.

But these recommendations are not enough. The Commission realizes that there are different factors at play for African American and other racial and ethnically diverse

Priority must be given to implementing recommendations and allocating resources in low performing schools and schools with high concentrations of students living in poverty.

students. While there is a high correlation between race and poverty in educational outcomes, race and poverty are not interchangeable. Racial inequities persist among students of different races and ethnicities with similar family income levels, as shown in data presented to the Commission by the Maryland Longitudinal Data System Center, the Education Trust, and other experts. For example, among students from higher incomes (non-FRPM eligible), 36% of African Americans scored at least proficient on the fourth grade reading PARCC compared to 65% of White students; the gap on the Algebra I PARCC is even wider.

Dr. Ivory A. Toldson, a consultant to the Commission, noted in his report to the Commission that African American and other students of color are dealing with racism and implicit and explicit biases from school personnel that lead to racial disparities in, for example, placement in Advanced Placement courses and disciplinary actions. Racial disparities can be seen in early childhood educational outcomes, which put students far behind their peers from the first day they enter school, and in access to college preparatory opportunities, as shown in the U.S. Department of Education Civil Rights Data Collection. While the Commission adopted many recommendations in its policy area reports that addressed education equity, the Commission adopted additional recommendations based on Dr. Toldson's suggestions. These recommendations were incorporated into the appropriate policy areas of the Commission's report in Chapter 4, including requiring existing and prospective teachers to receive cultural competency training that includes understanding and addressing implicit as well as explicit biases, adopting restorative practices, and recruiting more teachers in the classrooms who look like the students they are teaching.

In addition, the Commission is recommending better and additional data collection so that policymakers and decision makers have the information they need to evaluate the effectiveness of the Commission's recommendations and make data transparent and readily available to parents and the public. Specifically, data should be collected and made readily available on racial disparities not only in achievement but in school attendance, disciplinary actions, school readiness, enrichment opportunities, assignment to special education classes, student and principal satisfaction, and meaningful family involvement. Data metrics to be collected should be clearly defined and developed by the Maryland State Department of Education in partnership with school systems, and the Maryland Longitudinal Data System Center should be consulted, as appropriate.

While the Commission has diligently worked to put into place a system that provides the extra supports students need before, during, and after school as well as during the summer months, the Commission acknowledges that these extra supports are insufficient to fully support families and students grappling with socioeconomic realities that exist in the larger communities surrounding our schools. Strong student performance is achieved by strong students. A strong student is not only someone who makes the highest grades or performs best on exams but someone who is confident, curious, and resilient enough to persist in the face of challenging content and concepts;

Maryland must commit to building strong families and strengthening communities in a way that allows them to grow, nurture, and support strong students.

someone who is able to attend school regularly and comes to school equipped to learn – arriving in good health, having adequate sleep and nutrition, benefitting from nurturing guidance in a supportive home. Strong students come from strong families that are able to support their children in a way that allows them to fully participate in the education program his or her school offers. And strong families are supported by strong communities that have adequate infrastructure, services, and opportunities.

Therefore, in addition to the recommendations put forward by this Commission, Maryland must commit to building strong families and strengthening communities in a way that allows them to grow, nurture, and support strong students. This requires resource allocation, policies, and practices that ensure access to safe and affordable housing; ready access to nutritious food; reliable and efficient public transportation; high-quality and affordable child care, health, and dental care; and meaningful job opportunities that allow families to move beyond functioning on a survival budget and into real and lasting financial stability. Enacting all of the reforms included in the Commission’s report will certainly have great impact on the quality of teaching and learning in Maryland, but unless we also commit the same intentional approach to investing in the State’s communities and families, we will never completely fulfill the goals we have set forward for providing access, opportunity, and achievement for each and every student.

Finally, the Commission also learned that Maryland’s school finance system is regressive, meaning that less State and local funding is going to school systems and schools with greater numbers of students who need additional support and resources. At its best, an equitable school finance system provides greater funding to students with greater needs. As a step toward addressing this issue, the Commission is recommending that most funding provided through enrollment-based formulas follow the students to their schools and be required to be spent for students in their schools, as discussed further in Chapter 4. In its final report in fall 2019, the Commission will recommend changes to the education funding formulas to ensure that the distribution of Maryland school funding is more progressive.

Chapter 3:

Summary of Final Recommendations and Costs

The full Commission adopted final policy recommendations based on recommendations from each of the four working groups covering Policy Areas 1 through 4. The full Commission discussed and developed recommendations for Policy Area 5. These recommendations are summarized below by policy area. The Commission intends that these policy recommendations will be implemented in all public schools across the State, including charter and contract schools. Exhibit 3.1 shows a potential timeline to phase in implementation of the policy recommendations over 10 years. The phase-in schedule refers to year 1 (fiscal 2021) through year 10 (fiscal 2030), with fiscal 2020 representing “year 0” as a planning and start-up year before full implementation begins. To fully implement the recommendations from all five policy areas, total annual expenditures would increase by \$3.8 billion (State and local funds) by year 10 (fiscal 2030). For a more detailed explanation of the Commission’s final recommendations and costs by policy area, see Chapter 4. Total costs to implement the Commission’s recommendations as a system, accounting for adjustments for cost overlaps and savings, are detailed in Chapter 5.

Policy Area 1: Early Childhood Education

High-quality, full-day prekindergarten will be expanded through a voluntary, mixed-delivery system (public school- and community-based programs) at no cost for four-year-olds and three-year-olds from families with incomes up to 300% of the federal poverty level (FPL) (approximately \$75,000 for a family of four in 2018). For four-year-olds from families with incomes between 300-600% FPL (approximately \$75,000 to \$150,000 for a family of four in 2018), some public funding will be provided to families to assist with the cost of prekindergarten based on a sliding scale. Families with incomes above 600% FPL (approximately \$150,000 for a family of four in 2018) will pay the full cost to attend a public prekindergarten program.

Further, increased incentives and technical assistance will be provided to improve the capacity and quality of existing prekindergarten programs, and tuition assistance will be provided to assist staff and teachers in attaining early childhood education credentials at the pace needed to meet workforce demands. All entering kindergarteners will be assessed for school readiness, and the results will be used for lesson planning and identifying students with learning challenges who may need additional assistance. The State will also significantly expand the number of Judy Centers and Family Support Centers, and increase funding for the Maryland Infants and Toddlers Program, to ensure families with young children have access to support services.

Policy Area 2: High-quality and Diverse Teachers and Leaders

In addition to making teacher preparation programs more rigorous, raising licensing standards for new teachers, and rebranding the teaching profession as a more attractive career, Maryland will raise teacher pay to make it equitable with other highly trained professions with comparable education requirements. While teacher wages and salaries will continue to be collectively negotiated at the local level, the State will conduct periodic benchmarking of teacher salaries with other professions. Ultimately, most

increases in teacher salaries will be tied to movement up a teacher career ladder. The career ladder will be based on performance and experience, including certification from the National Board for Teaching and Professional Standards, and there will be two tracks: a Teacher Leadership Track and an Administrative Track. The State will provide uniform design parameters for the career ladder, including titles and criteria for moving up the ladder, and while local school districts will have flexibility to develop ladder pay scales and roles for teachers within the school, districts must remain within these parameters. The school day must also be reorganized to allow teachers to spend less of the working day teaching classes and have more time to improve instruction and plan lessons, tutor students who are falling behind, and participate in collaborative professional learning. Cultural competency and restorative practices training will be required for all teachers, and the State will expand scholarships and loan forgiveness programs for highly skilled and diverse teachers who teach, or agree to teach, in high-need schools.

Policy Area 3: College and Career Readiness Pathways

The prekindergarten to twelfth grade instructional system (curriculum frameworks, course syllabi, and assessments) as a whole must be fully aligned. A college and career readiness (CCR) standard will be established that certifies that the student has, by the end of tenth grade, the requisite literacy in English and mathematics needed to succeed in first-year, credit-bearing courses in open enrollment postsecondary institutions in the State. Students who meet the CCR standard will be able to pursue (1) the International Baccalaureate Diploma program, the Cambridge International Diploma program, or a sequence of Advanced Placement (AP) courses leading to an AP Diploma; (2) a dual-enrollment program to earn college credits while in high school, with the possibility of earning an associate's degree along with or subsequent to high school graduation; (3) redesigned Career and Technical Education (CTE) pathways that include workplace training and lead to industry-recognized credentials, including postsecondary certificates earned through dual enrollment; and (4) a combination of these options. These pathways will be aligned with high school graduation requirements, and the electives, extra-curricular activities, and full range of courses that are typically offered by a high school will still remain available to students regardless of the pathway that the student chooses. For students who do not meet the CCR standard by the end of tenth grade, the State and local school districts will develop eleventh and twelfth grade programs to meet the CCR standard by twelfth grade, including programs with more project- and program-based courses, summer instruction following tenth grade, assignment of a teacher as the student's case manager, and priority access to an enhanced career counseling system.

To keep students on the pathway of CCR, transitional supplemental instruction such as tutoring will be provided to all students in kindergarten through third grade that are identified as struggling learners. This early warning system will serve as a transitional program to provide students with additional academic support while the new system proposed by the Commission is being fully implemented. The State will establish a CTE Committee within the Governor's Workforce Development Board to

build and steer the CTE system, which will be fully aligned with the State's economic and workforce priorities and combine classroom education with workplace training. As part of the redesigned CTE system, every middle and high school student will have access to career counseling to advise them on CTE pathway options.

Policy Area 4: More Resources to Ensure All Students are Successful

To ensure all students have both the academic supports and wraparound services to address their social, physical health, mental health, and family needs, the funding formula weights for special education students and English learner students will be revised, and a new concentrated poverty formula will be added to support intensive, coordinated services for students in schools that have a high concentration of student poverty. For these high-poverty schools, funding in addition to the compensatory education formula will be available to provide a community schools coordinator and a health services practitioner at that school and services such as extended learning time, vision and dental services, behavioral health services, and family and community engagement. For the compensatory education formula and new concentration of poverty formula, direct certification including Medicaid eligibility should be used as the proxy for poverty in the future instead of eligibility for free and reduced-price meals.

For special education students, a placeholder weight will be in place until a special education study required by Chapter 361 of 2018 to evaluate national and international special education funding methodologies is completed and incorporated in statute. For English learner students, in addition to providing language acquisition services, funding will be included to provide supports for English learner students who are also low income, including instructional and intervention support, social and emotional support from counselors and social workers, and extended learning time through before- and after-school programming as well as summer school. Further, as part of the effort to increase school safety and wraparound services for students, school staff should be trained to recognize mental health issues and coordinate access to those services for students and the school-based health center program should be expanded.

Policy Area 5: Governance and Accountability

In order to transform Maryland's education system into a world-class system, the recommendations of the Commission must be implemented with fidelity, through a strong system of accountability where the vast majority of money follows the student to the school, and new funds must be spent effectively to improve student outcomes. An independent oversight board of education policy experts will be established, and will ultimately sunset after the implementation period, to oversee and coordinate implementation of the Commission's recommendations across numerous State and local entities (*e.g.*, Maryland State Department of Education (MSDE); Department of Labor, Licensing, and Regulation; Maryland Higher Education Commission; Department of Commerce; local boards of education; and State Board of Education) over the 10-year phase-in period. With input from State and local agencies charged

with implementing the Commission's recommendations, the oversight body will develop a comprehensive implementation plan with key milestones for year-by-year implementation. The oversight board will also develop guidelines and criteria on which MSDE will review and recommend approval of local school system implementation plans, monitor implementation efforts against the comprehensive plan schedule, and gather and analyze data on the effect of the plans on student performance. The oversight board will have authority to withhold up to 25% of new funds if it finds that the local school system or school is not doing what it should to improve student performance, consistent with the comprehensive implementation plan.

MSDE will oversee and coordinate a system of expert review teams (consisting of expert teachers, principals, and MSDE staff) to help schools with students who are not making adequate progress towards CCR endorsement by the end of tenth grade. The teams will conduct on-site evaluations and interviews and recommend measures to improve the school's performance. The CTE Committee will follow a similar process and organize expert review teams (consisting of representatives of employers and trade unions and CTE educators) to help schools with students who are not making adequate progress toward completion of the CTE pathway. Teacher preparation programs at institutions of higher education and alternative programs will be held accountable for ensuring that the teachers they train are better prepared to meet the higher standards and greater responsibilities called for by the Commission's recommendations. MSDE and the Maryland Higher Education Commission will report to the oversight board on the effectiveness of teacher preparation programs in implementing the Commission's recommendations.

Exhibit 3.1: Potential Implementation Timeline for Commission Recommendations

(Not all program elements represented)
Does Not Include Year 0 (FY 20)

Symbols Key:ⁱ



Phase-in period (expand access to and/or funding for the programs, services, or policies described in the recommendation).



The recommendation has reached the target level of implementation, either all at once or at the end of a phase-in period. Continue until a given end date.



The recommendation has reached the target level of implementation, either all at once or at the end of a phase-in period. Continue indefinitely.



Phase-out period (scale back access to and/or funding for the programs, services, or policies described in the recommendation).

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
POLICY AREA 1: EARLY CHILDHOOD EDUCATION										
Expand voluntary pre-K to provide free, full-day slots for four-year-olds up to 300% of FPL	➤	➤	➤	●						➡
Expand voluntary pre-K to provide full-day slots for four-year-olds between 300-600% of FPL on a sliding scale					➤	➤	➤	➤	➤	➤
Expand voluntary pre-K to provide free, full-day slots for three-year-olds up to 300% of FPL	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤
Increase funding for existing accreditation, credentialing, and other quality improvement programs by 10% each year and add new tuition assistance programs for prospective and current child care professionals	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤
Administer a racially and culturally unbiased assessment to all kindergarteners for diagnostic purposes, training, curriculum development, and early detection of learning challenges	●									➡
Create 135 new Judy Centers and 30 new Family Support Centers and increase funding for Maryland Infants and Toddlers Program	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
POLICY AREA 2: HIGH-QUALITY AND DIVERSE TEACHERS AND LEADERS										
Fund collaboratives (school systems, teacher preparation programs, unions) to develop and implement rigorous teacher preparation programs and practicums; evaluate efforts in final year										
Require all prospective undergraduate teachers to complete 180-day practicum										
Require competency-based licensure tests of teacher skill to receive State teaching license										
Require more rigorous licensure tests of teacher content knowledge (literacy and specialized subject matter)										
Expand financial supports for highly skilled and diverse candidates to teach in high-need schools (e.g., Maryland Teaching Fellows Scholarship)										
Launch statewide public relations and communications initiative to rebrand teaching as an attractive career and attract diverse candidates										
Raise teacher pay to make it equitable with other highly trained professionals with the same amount of education										
Implement career ladder for teachers and school leaders (with gradual opt-in; see below)										
Increase share of practicing teachers opting in to teacher career ladder										
Require all new educators to opt in to teacher career ladder										
Phase in Master Principal positions on school leader career ladder										
Train State, local, and school leaders to enable them to implement the recommendations in the Commission's report ⁱⁱ										
Increase classroom teachers' and teacher leaders' non-instructional time for collaboration, tutoring, etc.										
Design training on the teacher career ladder and effective use of collaboration time										
Train teachers on the teacher career ladder and effective use of collaboration time										

	Year 1 FY21	Year 2 FY22	Year 3 FY23	Year 4 FY24	Year 5 FY25	Year 6 FY26	Year 7 FY27	Year 8 FY28	Year 9 FY29	Year 10 FY30
POLICY AREA 3: COLLEGE AND CAREER READINESS PATHWAYS										
Develop a fully aligned instructional system, including curriculum frameworks, course syllabi, assessments, and clear examples of standard-setting work and formative assessments										
Conduct research to establish and implement a CCR standard set to global standards (determine requirements for success in the first year of open-entry colleges, establish CCR cut scores based on those requirements on the new State test, benchmark the Maryland CCR standard to global standards, and conduct validation study)										
For students who reach CCR by the end of tenth grade, LEAs to offer access to post-CCR pathways for eleventh and twelfth grade students (percent of students reaching CCR increases each year). Revise high school graduation requirements if necessary to accommodate these pathway options.										
For students who do not reach CCR by the end of tenth grade, LEAs to develop and provide tailored programs for eleventh and twelfth grade (percent of students not reaching CCR decreases each year) ⁱⁱⁱ										
Provide Transitional Supplemental Instruction, including tutoring, for all K-third grade students identified as struggling learners while the new system is implemented										
Establish a CTE Committee with dedicated staff, which will monitor and provide annual reports on the performance of the State CTE system, and a Skills Standards Advisory Committee										
Create a State grant program for LEAs and/or county governments to provide career counseling for middle and high school students on CTE pathway options										
POLICY AREA 4: MORE RESOURCES TO ENSURE ALL STUDENTS ARE SUCCESSFUL										
Add per pupil concentration of poverty weight in addition to compensatory education weight in schools with at least 55% FRPM (per pupil amount increases on sliding scale from 0% of the amount for schools with 55% FRPM to 100% of the amount for schools with 80% or more FPRM)										
Provide schools with at least 55% FPRM with funding for a community school coordinator and health services practitioner										

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
Revise funding formula weight for special education students (increase to placeholder weight until study completed to determine new weight) ^{iv}	➡	➡	●							➡
Revise funding formula weight for English learner students (increase to APA-recommended weight plus family liaison position/pupil supports) ^v	➡	➡	●							➡
Train school staff in all schools to recognize mental health issues as well as other issues related to trauma and coordinate access to needed mental health and other services for students	●									➡
Provide State funding for MSDE and LEA behavioral health coordinators	●									➡
Increase and expand school-based health centers	●									➡
POLICY AREA 5: GOVERNANCE AND ACCOUNTABILITY										
Create an Independent Oversight Board with dedicated staff to develop a comprehensive plan for implementing the Commission's recommendations and hold all State and local institutions and agencies involved in that plan accountable	●									●
Establish a system of Expert Review Teams, created by and under responsibility of MSDE and the CTE Committee, to conduct reviews of approximately 10% of all schools annually (with a focus on low-performing schools) and make recommendations for improving performance			●							➡
Participate in the OECD's PISA survey program as state education system	●									➡
Evaluate implementation of Commission's recommendations, with design of this evaluation beginning as soon as possible					●	●				●

APA: Augenblick, Palaich, and Associates

CTE: career and technical education

FPL: federal poverty level

FRPM: free and reduced-price meal

LEA: local education agency

MSDE: Maryland State Department of Education

OECD: Organisation for Economic Co-operation and Development

PISA: Programme for International Student Assessment

i Symbols show implementation of policy recommendations. Funding patterns often, but not always, mirror implementation patterns.

ii Ongoing training for new superintendents and principals not shown here.

iii Prior to full implementation of the Commission's recommendations, students who have not reached CCR may pursue, and LEAs are encouraged to introduce students to, introductory courses in the post-CCR pathways to engage their interest and retain them in school. Once it has been determined that the Commission's recommendations have been fully implemented, students must reach CCR before beginning a course sequence in a post-CCR pathway. There will be a limited number of special circumstances where the industry sponsors of CTE programs require students to start coursework earlier than 10th grade.

iv New weight expected by year 3 (not shown here).

v The pupil supports identified for compensatory education students will be incorporated into the weight for English learner students who are also eligible for compensatory education funding.

Chapter 4:

Final Recommendations and Cost Estimates By Policy Area

Over the past nine months, the Commission has worked intensively to provide the necessary detail and cost estimates for the recommendations contained in the five policy areas identified in its preliminary report:

1. Early Childhood Education;
2. High-quality and Diverse Teachers and Leaders;
3. College and Career Readiness Pathways (including Career and Technical Education);
4. More Resources to Ensure All Students are Successful; and
5. Governance and Accountability.

The final recommendations are described in this chapter with specificity by policy area and within each policy area, by element (or recommendation). Within each element are program design assumptions and implementation decisions related to the proposal. Each policy area begins with an introduction to provide context for the Commission's recommendations and ends with a summary of the estimated additional cost of implementing those recommendations, which were developed by its staff from the Department of Legislative Services and consultants from Augenblick, Palaich, and Associates (APA) and the National Center on Education and the Economy. The total cost to implement all of the Commission's recommendations as a system, including adjustments for costs accounted for in more than one policy area and savings, are detailed in Chapter 5.

A fundamental premise of the Commission's work is that, while the recommendations are grouped by policy area, they cannot be implemented in a piecemeal or "a la carte" menu approach. The Commission, with the assistance of its staff and consultants, has carefully developed a 10-year implementation strategy that weaves all of the interdependent recommendations together as a coherent whole (as shown in Chapter 3). The public prekindergarten-12 education system proposed by the Commission is intended to serve all public school students, regardless of where they live or what public school they attend. Likewise, the recommendations are intended to apply to teachers and leaders in every public school in the State.

Policy Area 1

Early Childhood Education

As the Commission assessed the present state of preK-12 in Maryland, perhaps its greatest concern is the unacceptably large achievement gaps among students based on income and race, as well as other characteristics. The Commission came to understand that a major source of the problem is the deep disparity in family income that affects the early development of children. The distribution of income in the United States, which half a century ago was the most even among all the advanced industrial countries, is now among the least even. Close to half of Maryland's children are in families that qualify for free and reduced-price meals, the most widely used measure of poverty in our schools. Many of these families are highly concentrated into pockets of despair, places often characterized by hopelessness, widespread unemployment, crime, and violence that creates an environment for children that can greatly impede their social and educational development.

As the Commission learned, unlike the United States and Maryland, many of the countries with top-performing school systems provide free or very low-cost and very high-quality child care and early childhood education for all children before they are enrolled in elementary school. In addition, many of these countries provide significant financial supports to a wide range of families with young children, some providing monthly stipends for each child. Many provide free nutritional assistance, in-home assistance to pregnant women and nursing mothers, early screenings for health and learning issues, and parenting support and education. As a result, almost all children – from wealthy families or not – begin school on more or less even footing and ready to learn.

The cumulative effect of these and other differences in policy for the schools in the United States, and Maryland in particular, is dramatic. Research shows that, by the time they are five years old, students in the United States growing up in poverty are exposed to as many as 30 million fewer words and score two years behind on standardized language development tests than their counterparts coming from wealthier families. Not surprisingly, these gaps in readiness are almost impossible to overcome, all the more so since too many low-income students attend schools that simply do not have the resources to provide the additional support and resources needed to close the gaps that existed on the student's first day of school.

If the Commission had a mandate to address these problems at their root, it would have made recommendations that went far beyond its charge to address issues of education policy. But it did not. In keeping with its charge, the Commission has chosen to make recommendations that, among other things, would greatly expand access to high-quality, full-day early childhood education. That expansion would take place over a period of years, starting with four-year-olds and moving to three-year-olds.

By the time they are five years old, students in the United States growing up in poverty are exposed to as many as 30 million fewer words than their counterparts coming from wealthier families.

The plan offered by the Commission gives as much emphasis to quality of early childhood education as it does to quantity and access.

It would give top priority to the families and students living in the greatest poverty, both in terms of access and quality. While high-quality early childhood education will be free for low-income families, middle-income families will also find it easier to afford high-quality early childhood education for four-year-olds because they will be able to get financial assistance from the State, offered on a sliding scale keyed to their incomes.

The plan offered by the Commission gives as much emphasis to quality of early childhood education as it does to quantity and access. While the plan would have the State continue to rely on both public and private providers of services, all providers would have to meet high standards of provision, especially with respect to the qualifications of the staff providing the services. Though the standards will be high, providers will be given reasonable periods of time to meet them and the State will provide incentives for training the additional high-quality staff that will be needed. The recommendations also address the challenge of attracting staff that will be needed not only by increasing the expected compensation but by offering early childhood education staff real careers in this field with the creation of career ladders like those being created for classroom teachers under Policy Area 2. It also requires the schools to assess all children coming into school for readiness, in order to identify any issues early and address them before any child falls off track.

But that is not all. The Commission also proposes to greatly expand the number of Family Support Centers and Judy Centers in the State. These centers coordinate the delivery of a wide range of services offered by the State to low-income families with children and, in some cases, not only coordinate the delivery of those services but co-locate them so that parents can go to one place that offers multiple services. These centers have become national models for the kind of work they do, but there are not enough of them now to serve the families who need them. In addition, the Commission proposes to raise the funding levels for the Maryland Infant and Toddlers program, which provides services for young children identified as having developmental delays.

The principle underlying all of these proposals is very simple and is based on practices common in the top-performing school systems. It is cheaper and far more effective to help families living in challenging financial circumstances to get their newborns off to a healthy start than to address the issues bad nutrition and inadequate pre and postnatal care produce. It is better to help a child develop the vocabulary needed in the first grade before that child gets to the first grade than to cope with the challenges when children cannot understand the language needed for the first-grade curriculum. It is better to help a child feel loved and comfortable in a school setting when entering kindergarten than to deal with a child who enters school deeply distrustful of the teachers because he or she has learned to trust almost no one.

Element 1a: Expand full-day Pre-K at no cost for four-year-olds and three-year-olds from families with incomes up to 300% of the federal poverty level (FPL) (approximately \$75,000 for a family of four in 2018) and for four-year-olds from families with incomes between 300% and 600% FPL (approximately \$75,000 to \$150,000 for a family of four in 2018) using a sliding scale.

Design Assumptions:

Access to publicly funded full-day pre-K will be expanded for free to three- and four-year-olds from low-income families.

1. Research shows that investing in the early childhood learning and development of disadvantaged children yields a high return to society, offsetting taxpayer costs for poor health, dropout rates, poverty, and crime. Other benefits include reductions in special education costs, grade retention rates, teacher turnover and absenteeism costs, and costs for tutoring and other supports.
2. Expansion efforts must be accomplished in partnership with, and with significant investment from, the local jurisdictions and community-based providers.
3. The State, local jurisdictions, and local education agencies will expand access to publicly funded full-day pre-K for four-year-olds so that there will be no charge for low-income families (a family with an income up to 300% FPL/\$75,000 based on a family of four). Full funding will be made available no later than the year in which the full-day pre-K requirement takes effect (*e.g.*, year 4 for four-year-olds). Public funding will be provided to assist with the cost of pre-K for families with incomes between 300-600% FPL/\$75,000-\$150,000 based on a family of four, however, these families will still be expected to pay a portion of the cost using a sliding scale. Families with incomes above \$150,000 will pay the full cost to attend a four-year-old pre-K program. This will be phased in on a 10-year timeline.
4. The State, local jurisdictions, and local education agencies will expand access to publicly funded full-day pre-K for all three-year-olds from low-income families (a family with an income up to 300% FPL/\$75,000 based on a family of four). This will be phased in on a 10-year timeline with full funding made available no later than the year in which the requirement takes effect (*e.g.*, year 10 for three-year-olds from low-income families).
5. Family enrollment in pre-K will be voluntary.
6. All publicly funded full-day pre-K programs will be a minimum of 6.5 hours and at least 180 school days.
7. Provision of publicly funded pre-K will include both public school-based pre-K programs and participating community-based pre-K programs. All participating programs must be licensed to operate in the State. In order to participate in publicly funded pre-K, a provider may not charge more tuition for any student who receives public funding for the 6.5 hour school day than

the total amount of public funding provided for the school year for a student from a low-income family (*i.e.*, “cost of quality” amount).

8. A participating provider may not engage in explicitly religious activities during the portion of the day supported by publicly funded pre-K (6.5 hours), consistent with federal regulations governing use of funds. Any such activities must be offered separately in time or location, and participation must be voluntary.
9. A participating provider will not be required to adopt any rule, regulation, or policy that conflicts with its religious or moral teachings. However, participating providers accepting public funds must agree not to discriminate, and may not discriminate, in either student admissions or retention on the basis of race, color, disability, national origin, or sexual orientation of the student or the student’s parent or guardian. Any provider found to be in violation of this requirement will be required to return any public funds and may not participate in the program. The placement of a student with a disability will be made based on an individualized assessment about where the student may be best served in accordance with federal and State laws and whether the provider can meet the particular needs of the student with reasonable accommodations without fundamentally altering its program or posing an undue burden.
10. In order to access the new public pre-K funding associated with these recommendations, all participating programs, whether based at public schools or in community settings, will be immediately required to meet the definition of a high-quality, publicly funded pre-K program. This will require some changes to the Code of Maryland Regulations. A high-quality, publicly funded pre-K program means an early learning program that includes structural elements that are evidence-based and nationally recognized as important for ensuring program quality, including at a minimum:
 - a. high staff qualifications, including teachers who hold State certification for teaching in early childhood education or a bachelor’s degree in any field pursuing residency through the Maryland Approved Alternative Preparation Program, a State-approved alternate pathway, which includes coursework, clinical practice, and evidence of knowledge of content and pedagogy relating to early childhood; and teaching assistants who have at least a Child Development Associate (CDA) certificate or an associate’s degree;
 - b. high-quality, professional development for all staff;
 - c. a child-to-instructional staff ratio of no more than 10 to 1;
 - d. a class size of no more than 20 with, at a minimum, one teacher with high-staff qualifications as outlined in paragraph (a);
 - e. a full-day program;

- f. inclusion of children with disabilities to ensure access to and full participation in all opportunities;
- g. developmentally appropriate, culturally and linguistically responsive instruction and evidence-based curricula, and learning environments that are aligned with the State Early Learning and Development Standards, for at least the year prior to kindergarten entry;
- h. individualized accommodations and supports so that all children can access and participate fully in learning activities;
- i. instructional staff salaries that are comparable to the salaries and benefits of local public K-12 instructional staff;
- j. program evaluation to ensure continuous improvement;
- k. on-site or accessible comprehensive services for children and community partnerships that promote families' access to services that support their children's learning and development; and
- l. evidence-based health and safety standards.

All new programs will be required to meet the definition of a high quality, publicly funded pre-K program.

- 11. In addition, community providers must publish at least at a level 3 ranking on the EXCELS quality scale with a plan approved by the Maryland State Department of Education (MSDE) to achieve level 5 within five years. Public school-based pre-K programs must publish in EXCELS at least at a level 4 with a plan approved by MSDE to achieve level 5 within five years. Beginning in year 5, all new programs will be required to meet the definition of a high-quality, publicly funded pre-K program outlined in Item #10 and publish at level 5 to participate.
- 12. Although the time it will take for a provider to move up the EXCELS levels depends on individual circumstances, on average, it currently takes a provider one year to move from EXCELS level 1 to 2, up to two years to move from EXCELS level 2 to 3, two to three years to move from EXCELS level 3 to 4, and two to three years to move from EXCELS level 4 to 5.
- 13. Income-eligible families will have access to extended day (before and after care) services through the State's child care subsidy program. Chapters 563 and 564 of 2018 require the State to increase the program's provider reimbursement rates for each region to the sixtieth percentile of child care provider rates by fiscal 2022. Recently promulgated regulations expand the number of families who will be eligible for child care subsidies by updating eligibility for the program to reflect 65% of the State median income.

Implementation Decisions:

1. Expansion of full-day pre-K will be focused on making full-day pre-K available for all four-year-olds from low-income families as half-day slots are being converted into full-day slots and new slots are coming on line. By year 4, all four-year-olds from low-income families will be offered high-quality, full-day pre-K. This will occur at the same time as full-day pre-K is expanded gradually for three-year-olds from low-income families.
2. Full-day pre-K for three-year-olds from low-income families will be phased in over the 10-year period by a minimum of 10% per year. Therefore, by year 10, all three-year-olds from low-income families will be offered full-day pre-K.
3. The State will require that a minimum percentage of full-day pre-K slots in each local education agency be provided in participating community-based settings. This minimum requirement will begin at 30% to reflect the current balance between public school-based and community-based settings. The minimum percentage will increase in 5% per year increments in years 1 through 4 and remain constant at 50% beginning in year 5. It may be met by serving three-year-olds from low-income families and/or four-year-olds. Local education agencies will be given flexibility through waiver provisions if the local education agency annually demonstrates to the State (i) that the agency already provides full-day pre-K to all four-year-olds who enroll in public pre-K or (ii) that not enough community-based providers exist in the jurisdiction to meet the minimum percentage, even after reasonable cross-jurisdiction or regional efforts. A local education agency may receive an annual waiver until the applicable requirement takes effect (*e.g.*, year 4 for full-day pre-K for four-year-olds, year 10 for full-day pre-K for three-year-olds from low-income families).
4. Priority in expansion of high-quality pre-K for four-year-olds and three-year-olds will be given to (a) students from families with the lowest incomes; (b) students with special education needs, regardless of income; and (c) students who are English learners, regardless of income. Public funding to support special education students and English learners will follow the student and go to the provider that is serving the student.
5. Local education agencies will enter into agreements with community-based providers to provide publicly funded pre-K programs to four-year-olds and three-year-olds, including the provision of services for students with special needs, in accordance with federal education laws. The agreements may also include a process for parents to register four-year-olds and three-year-olds for pre-K and to indicate a preference for the program setting, if any (*e.g.*, Denver allows a parent to rank his or her top three program choices).
6. Priority in expansion of high-quality pre-K programs through technical assistance, coaching, and workforce capacity building efforts (Element 1b) will be given to areas and regions where there are fewer providers and programs

Priority in expansion of high quality pre-K will be given to students from families with the lowest incomes, students with special education needs, and students who are English learners.

available to serve the four-year-old and three-year-old populations in the area or region. The State and local education agencies must prioritize these areas as part of accountability requirements. The State and local education agencies will be encouraged to collaborate to explore and possibly replicate innovative ways that may currently exist to address child care deserts, including regional cross-jurisdiction programming and reciprocity with border states.

7. It is assumed that the target participation rate for the voluntary enrollment of four-year-olds in publicly funded pre-K will increase from 70% to 80% over the implementation period as more families take advantage of available publicly funded pre-K programs. However, it is assumed that the participation rate will not exceed 80% as some families will make other child care arrangements or keep children at home until kindergarten.
8. The implementation schedule will use 80% of families as the target for the voluntary enrollment of three-year-olds from low-income families in publicly funded pre-K, as some families will make other child care arrangements or keep children at home.
9. Publicly funded pre-K for four-year-olds will be available at no charge for families with incomes up to 300% FPL/\$75,000 based on a family of four. Beginning in year 5, public funding will be provided to assist with the costs of pre-K for families with incomes between 300-600% FPL/\$75,000-\$150,000 based on a family of four. Even with this public support, these families will still be expected to pay a portion of the cost to attend a pre-K program so that as a family's income increases, the amount of public support decreases (sliding scale). Families with incomes above 600% FPL/\$150,000 based on a family of four will pay the full cost. Income levels will be adjusted for family size. There will be administrative costs associated with implementing the sliding scale.
10. The State will prioritize public school construction funding requests for high-quality pre-K classrooms.
11. Local jurisdictions will be encouraged to partner with the State to develop innovative ways to meet physical space constraints during the phase-in period, such as utilizing available space at senior or community centers for early education programs, while meeting the standards of a high-quality pre-K program.
12. For K-12 students, all school systems are currently required to provide transportation to and from school for all public school students, including disabled students. State aid for K-12 students is currently distributed according to a formula that is adjusted for enrollment. It is assumed that pre-K students will be included in a transportation formula. The State, local education agencies, and community-based providers will partner to address transportation needs for pre-K students. As the State transitions to full-day pre-K that better aligns with parents' working schedules, there may be a reduced need for transportation. In addition, child care subsidy funds will be

Public funding will be provided to assist with the costs of pre-K for families with incomes between 300-600% FPL on a sliding scale so that as a family's income increases, the amount of public support decreases.

available for eligible families to use for before and after care, which may include transportation services to and from a pre-K program.

Phase-in Timeline Decisions:

1. **EXCELS:** To receive full-day public funding, all participating programs will be immediately required to meet the definition of a high-quality publicly funded pre-K program. In addition, a community provider must achieve at least a level 3 with a plan approved by MSDE to achieve level 5 within five years. Public school-based pre-K programs must achieve at least a level 4 with a plan approved by MSDE to achieve level 5 within five years. Beginning in year 5, all new programs will be required to meet the definition of a high-quality publicly funded pre-K program and publish at level 5 to participate. Note: Through the phase-in period, local education agencies must continue to at least meet the current requirement of providing a minimum half-day program for children from families with incomes at or below 185% FPL.
2. **Minimum Percentage of Pre-K Slots in Community-based Settings:** Starting in year 1, there will be a requirement that a percentage of pre-K slots (for four-year-olds and/or three-year-olds) be provided in community-based settings. This minimum requirement will begin at 30% to reflect the current balance between public school-based and community-based settings. The minimum percentage will increase in 5% per year increments in years 1 through 4 and remain constant at 50% beginning in year 5. A local education agency may be able to receive an annual waiver from this minimum requirement in specified circumstances.
3. **Expansion of slots for four-year-olds and three-year-olds from low-income families** (family income below 300% FPL/\$75,000 for a family of four) will be phased in over a 10-year period. One potential phase-in schedule is shown in Exhibit 4.1 below, however, jurisdictions may choose to begin implementing mixed-delivery, full-day programs for four-year-olds and three-year-olds that meet the requirements of publicly funded pre-K beginning in year 1. Pre-K will be available at no charge for four-year-olds and three-year-olds from low-income families. The following will be required in the year it takes effect:
 - a. In year 4, all four-year-olds from low-income families will have access to full-day pre-K.
 - b. In year 10, all four-year-olds from low-income families will continue to have access to full-day pre-K, and all three-year-olds from low-income families will have access to full-day pre-K.
4. **Sliding Scale for Four-year-olds** (family income between 300-600% FPL/\$75,000-\$150,000 for a family of four): Beginning in year 5, public funding will be provided to assist with the cost of pre-K for families with incomes between 300-600% FPL/\$75,000 and \$150,000 for a family of four.

Even with this public support, these families will still be expected to pay a portion of the cost to attend a pre-K program so that as a family's income increases, the amount of public support decreases (sliding scale). To avoid a cliff effect whereby a small increase in income results in a significant loss of public support, there will be approximately 15 steps, with a 6-7 percentage point difference between each step. Families with incomes above 600% FPL/\$150,000 for a family of four will pay the full cost for four-year-old pre-K.

5. Workforce Building for Early Childhood Education (ECE): As the number of slots and students increase, additional capacity building of the early childhood workforce system, including credentialing, recruitment, and retention of educators and staff, will be needed to meet increased workforce demand (Element 1b).

Exhibit 4.1 Potential Publicly Funded Prekindergarten Phase-in Schedule

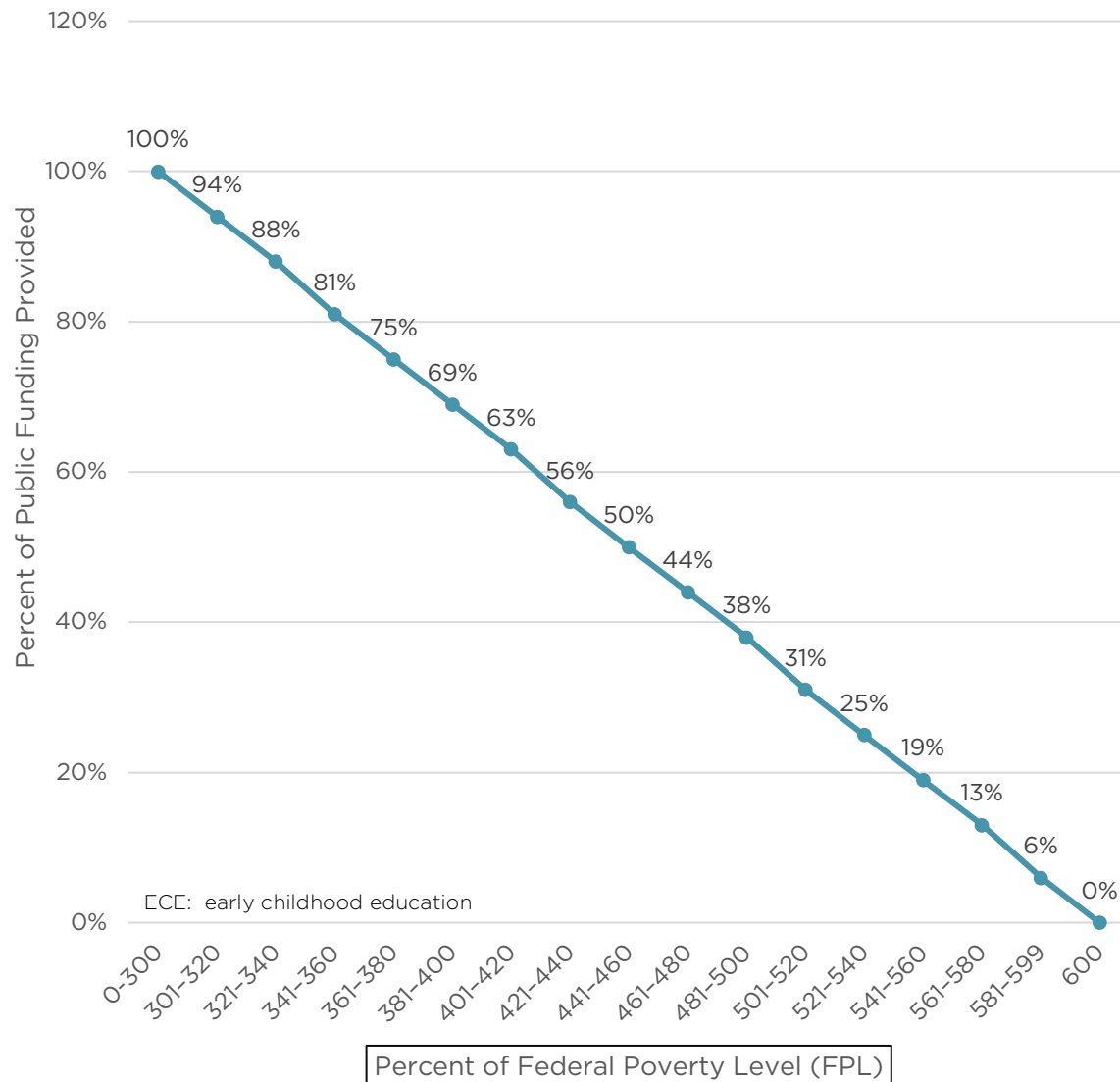
	FY20	1 FY21	2 FY22	3 FY23	4 FY24	5 FY25	6 FY26	7 FY27	8 FY28	9 FY29	10 FY30
4-year-olds	All below 185% FPL offered ½ day	25% of half-day slots convert to full day	50% half-day slots convert to full day	75% half-day slots convert to full day	All below 300% FPL offered full day	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.	All below 300% FPL offered full day. Sliding scale for families between 300% and 600% FPL.
3-year-olds	None required	10% below 300% FPL offered full day	20% below 300% FPL offered full day	30% below 300% FPL offered full day	40% below 300% FPL offered full day	50% below 300% FPL offered full day	60% below 300% FPL offered full day	70% below 300% FPL offered full day	80% below 300% FPL offered full day	90% below 300% FPL offered full day	All below 300% FPL offered full day
Community-based (3- or 4-year-olds)	None required	Min 30% in community-based settings	Min 35% in community-based settings	Min 40% in community-based settings	Min 45% in community-based settings	Min 50% in community-based settings	Min 50% in community-based settings	Min 50% in community-based settings	Min 50% in community-based settings	Min 50% in community-based settings	Min 50% in community-based settings

Note: This exhibit represents a potential phase-in for costing out purposes. The items bolded in blue are the only requirements that will be recommended to be codified in law. A local education agency could choose to phase in these requirements on a more aggressive timeframe. Student participation in publicly funded prekindergarten is voluntary.

Percent of Federal Poverty Level	Approximate Income Level for Family of Four	Number of Four-year-olds (Year 5)
0 - 200%	\$0 - \$49,999	24,663
201% - 300%	\$50,000 - \$74,999	12,733
301% - 400%	\$75,000 - \$99,999	9,988
401% - 500%	\$100,000 - \$124,999	7,836
501% - 599%	\$125,000 - \$149,999	5,470
600% and above	\$150,000 and above	13,491

Source: 2018 Federal Poverty Level Guidelines, U.S. Department of Health and Human Services

Exhibit 4.2: Level of ECE Public Funding for Increments of FPL between 300% and 600% (Based on 15 Steps)



Percent of Federal Poverty Level	Percent of Public Funding Provided
0-300%	100%
301-320%	94%
321-340%	88%
341-360%	81%
361-380%	75%
381-400%	69%
401-420%	63%
421-440%	56%
441-460%	50%
461-480%	44%
481-500%	38%
501-520%	31%
521-540%	25%
541-560%	19%
561-580%	13%
581-599%	6%
600% and above	0%

Element 1b: Capacity building for new and current programs (tuition assistance for prospective staff, training, support of peer networks, integration with career ladder)

Design Assumptions:

1. The State will encourage pre-K programs to invest in helping teachers to become certified in early childhood education (ECE).
2. The State will offer increased coaching and technical assistance through EXCELS and Child Care Resource Centers to support the efforts of community providers in improving the quality of their programs. The State will prioritize supporting providers in high-need communities in meeting the definition of a high-quality publicly funded pre-K program and publishing at EXCELS level 5.
3. The State will support ECE staff and teachers in attaining CDA credentials, associate's degrees, and bachelor's degrees to serve as teachers or aides and assistant teachers in publicly funded pre-K programs. This support will include tuition assistance and financial support to help cover tuition, course and exam fees, and coaching by mentor teachers.
4. Public pre-K teachers will be part of the Maryland K-12 teacher career ladder. Master public pre-K teachers will be a level on the career ladder. In order to become a master teacher on the career ladder, the teacher must earn National Board Certification.
5. A local education agency and a provider may both choose to enter into a Memorandum of Understanding to enable pre-K teachers in community-based settings to participate in the public pre-K teacher career ladder as employees of the local education agency. Such agreements currently exist under the State Pre-K Expansion Grant Program.

Public pre-K teachers will be part of the Maryland K-12 teacher career ladder.

Implementation Decisions:

1. The State will implement initiatives developed under MSDE's Master Plan on Professional Development for Teachers and Providers of Early Childhood Education, such as aligning high school early childhood Career and Technical Education (CTE) program standards with CDA credential requirements and community college ECE programs; expanding online professional development courses with job-embedded coaching; requiring coursework and clinical work in ECE programs to include training in diverse child care environments and working with children with special needs; creating pathways that accept prior learning experience; creating an ECE bachelor's degree program and dual-certification programs; and creating a public awareness campaign for recruiting ECE teaching staff and promoting quality child care.
2. The State will set targets so that the percentage of teachers certified in ECE and staff with CDA credentials increases and keeps pace with the 10-year implementation period. At full implementation of pre-K for three-year-olds

from low-income families and four-year-olds, the State will need 8,800 pre-K teachers and assistants (4,400 each).

To promote a more diverse workforce, the State will also expand access to early childhood programs, focusing on jurisdictions where the greatest disparities exist between student demographics and ECE staff.

3. The State will expand and increase the amount of training vouchers and credentialing bonuses to encourage providers to continue professional development. The amounts of the vouchers and bonuses will be tiered with the credentialing levels to incentivize movement towards higher quality.
4. The State will provide financial assistance for students who complete the high school early childhood CTE program to take the CDA assessment so the student can work as an aide or assistant teacher. To promote a more diverse workforce, the State will also expand access to early childhood programs, focusing on jurisdictions where the greatest disparities exist between student demographics and ECE staff.
5. The State will increase MSDE's capacity to provide technical assistance and professional development to participating and prospective pre-K programs through EXCELS quality assurance specialists, regional offices, and on-site monitoring and licensing staff to keep pace with the increase in participating providers. It is assumed that this additional support will expedite the abilities of providers to move from level 3 to level 5 in EXCELS.
6. The State also will expand the coaching infrastructure model developed by the Child Care Resource Center Network to provide training and mentoring for community providers to meet EXCELS requirements.
7. The State will identify ECE teachers as a workforce shortage area to enable tuition assistance through the Workforce Shortage Student Assistance Grant Program.
8. The State will create a full tuition scholarship program for students who become lead pre-K teachers and commit to work in high-needs schools for a certain number of years.
9. The State will significantly increase funding for the Child Care Center and Professional Development Fund to support ECE staff who are already working in child care programs in obtaining CDA credentials, associate's degrees, and bachelor's degrees.
10. The State will focus outreach and recruitment efforts so that the ECE teachers and staff mirror the diversity of the community.
11. The State will require that all pre-K teachers have training on cultural competency and restorative practices through teacher preparation programs or professional development programs.

Element 1c: Implementation of a school readiness assessment for *all* students entering kindergarten.

Design Assumptions:

1. A racially and culturally unbiased assessment that will be used for diagnostic purposes, curriculum development, and early detection of learning challenges will be given to all kindergarteners as a census.
2. To minimize the amount of duplicative testing for our youngest learners, the State's goal should be for the Kindergarten Readiness Assessment (KRA) or any successor assessment to serve as the sole diagnostic assessment for kindergarten readiness.
3. The State will continue to provide every kindergarten teacher with training or a refresher course on administering the KRA or its successor assessment each year.
4. The State will continue to provide professional development funds for jurisdictions that administer the KRA or its successor assessment as a census assessment.
5. The assessment tool will provide information for kindergarten teachers to use for lesson planning and identifying students who may need additional assistance.
6. The assessment tool will not be cumbersome for teachers to administer and teachers will be given time to administer the assessment within the school day.
7. A protocol will be put in place to enable teachers to use and act on the information produced by the assessment tool, such as referring students for case management or in-class or out-of-class supports.

The assessment tool will not be cumbersome for teachers to administer and teachers will be given time to administer the assessment within the school day.

Implementation Decisions:

1. Since a portion of the KRA requires the teacher to observe how the student interacts with other students in a classroom, the full KRA cannot be administered before students enter kindergarten. Therefore, local education agencies will have flexibility to administer a portion of the KRA or its successor assessment before students enter kindergarten and during the first two months of the school year.
2. The State will require the KRA or its successor assessment to be administered to every kindergarten student as a census and not as a random sample to ensure equity and accountability.
3. The State will extend the administration window from October 10 to October 30 to reduce the operational impact of conducting the KRA or its successor assessment as a census assessment.

4. A survey of kindergarten teachers who administered Version 2.0 of the KRA will be conducted after it is fully implemented in fall 2018 to get feedback on the usefulness and usability of the new version of the KRA.
5. The survey will include questions such as (i) the usefulness of the KRA data to inform kindergarten instruction; (ii) whether the KRA data enhances a teacher's ability to identify challenges that a student may be experiencing, especially those indicating that a child may need special education services; and (iii) whether the teacher administers a separate, locally mandated kindergarten diagnostic assessment and, if so, whether the KRA is duplicative of that assessment.
6. The State (entity to be determined) will review the results of the survey and review Version 2.0 for usefulness and usability and, in consultation with MSDE, make any recommendations for changes, if needed.
7. The data collection system of the KRA or its successor assessment will include a standardized process for reporting a kindergartener's prior care setting.
8. The KRA or its successor assessment will be implemented as a census statewide by school year 2020-2021.

The expansion of Judy Centers and Family Support Centers will be phased in over 10 years, with a priority in opening new centers in the neediest communities.

Element 1d: Expand Judy Centers, Family Support Centers, and the Maryland Infants and Toddlers Program to provide and coordinate access to education and support services for at-risk children ages 0-5 and their families.

Design Assumptions:

1. The State will expand the number of Judy Centers over time, with the goal of matching the number of Title I elementary schools.
2. The State will expand the number of Family Support Centers over time, with the goal of ensuring that every underserved neighborhood has a Family Support Center or similar set of programs and services.
3. The State will increase funding for the Maryland Infant and Toddlers Program that provides support to families with children with developmental delays and special needs.

Implementation Decisions:

1.
 - a. The expansion of Judy Centers will be phased in over 10 years, with a priority in opening new Judy Centers in the neediest communities. MSDE will be required to consider geographic diversity when selecting a Title I school within which to locate a new Judy Center. MSDE will be required to coordinate placement of new Judy Centers in order to serve multiple, closely located Title I schools in a high-needs area or region.

- ## 2.

3. The State will increase funding for the Maryland Infants and Toddlers Program to support the increase in the number of children eligible for these services.

Policy Area 1 includes several elements that carry a cost, most significantly related to the expansion of prekindergarten. The assumptions used to estimate the additional costs associated with implementing each of the elements are summarized below. Elements not included below either do not have additional costs associated with them or their costs are accounted for in other Commission recommendations. Additional detail for each cost element is provided in Appendix 6.

Element 1a. Expanding full-day pre-K for four-year-olds and three-year-olds: Cost estimates, detailed in Exhibits 4.3a-b below, are based on cost of quality figures that represent a per pupil amount of funding to be phased in over years 1 through 5 to account for higher costs as providers progress from level 3 to level 5 on the EXCELS quality rating system. The cost estimates also take into account projected capacity and enrollment, the conversion of half-day slots into full-day slots, increased participation over time as families become aware of and take advantage of publicly funded pre-K programs, and new providers entering the early childhood market and meeting the eligibility requirements to participate in publicly funded pre-K.

Four-year-olds: Total expenditures to serve four-year-olds at or below 300% FPL are \$129.7 million in year 1, \$335.2 million in year 5, and \$392.2 million in year 10. The cost estimates reflect the conversion of all half-day slots to full-day slots by year 4 and assume a participation rate of 70% in years 4 and 5, 75% in years 6 and 7, and 80% in year 8 and subsequent years.

Three-year-olds: Total expenditures to serve three-year olds at or below 300% FPL are \$25.2 million in year 1 and \$199.2 million in year 10. The cost estimates assume a phase-in over the implementation period by 10% annual increments and an 80% participation rate. However, they also reflect the lack of slots in years 5 through 7; thus, no costs are estimated for those years.

Sliding scale for four-year-olds: Total expenditures to serve four-year-olds from families with incomes between 300-600% of FPL are \$55.9 million in year 5 (the first year of the requirement) and \$137.3 million in year 10. The cost estimates take into account the limited capacity in years 5, 6, and 7; thus, expenditures only reflect funding the projected slots available in those years. Even with this public support, families will still be expected to pay a portion of the cost to attend a pre-K program so that as a family’s income increases, the amount of public support decreases (sliding scale).

Support costs: In addition, there will be development and maintenance costs for MSDE or local school systems to collect tuition from families participating in the sliding scale system and to distribute public funds to community-based pre-K providers. Due to the number of providers and the complexity of the sliding scale payment structure, these costs may be significant; however, more accurate costs cannot be reliably estimated at this time. To the extent that pre-K enrollment increases, MSDE will need to hire additional early childhood education staff to monitor and assist program providers. Moreover, more MSDE staff will be required to evaluate and monitor pre-K programs as providers increase the quality of their programing.

Exhibit 4.3a: Prekindergarten Expansion

2019-2020 Cost of Quality Inflated (Cost Per Child):	EXCELS Level 3: \$8,446	EXCELS Level 4: \$11,476	EXCELS Level 5: \$12,804		
Phase-in Cost Of Quality Per Child:	Year 1: \$8,446	Year 2: \$9,576	Year 3: \$10,747	Year 4: \$11,776	Year 5: \$12,804

Element 1b. Capacity building initiatives for new and current programs: MSDE currently administers several programs to encourage child care and pre-K providers to improve the quality of their programs by pursuing accreditation, licensing, and other credentialing and technical assistance opportunities. For community-based settings, these programs are intended for providers to achieve EXCELS level 5 at a pace that matches pre-K expansion as outlined in Element 1a. It is assumed that there will be a 10% increase in funding per year over 10 years. Therefore, new expenditures increase by \$755,000 in year 1, \$4.6 million in year 5, and \$12.0 million in year 10.

Exhibit 4.3b: Element 1a Prekindergarten Expansion

(in \$ millions)

Capacity											
	2017-2018 SY	Year 1 (FY21)	(FY 22)	(FY 23)	(FY24)	Year 5 (FY25)	(FY26)	(FY27)	(FY28)	(FY29)	Year 10 (FY30)
Total Slots (in Public School and Community-based Settings)	38,254	36,393	34,530	32,668	32,345	33,963	38,789	41,992	48,485	55,301	65,322
LEA Half Day Slots	14,899	11,175	7,450	3,725	0						
LEA Full Day Slots	11,633	11,633	11,633	11,633	11,633	11,633	11,633	11,633	11,633	11,633	11,633
Centers	11,722	11,722	11,722	11,722	11,722	11,722	14,701	15,905	20,089	24,272	28,455
Converted Half Day to Full Day Slots		1,863	3,725	5,588	7,450	7,450	7,450	7,450	7,450	7,450	7,450
Accredited (Not EXCELS)											2,863
Cost Estimates to Serve 4-year-olds at or below 300% of Federal Poverty Level											
			Participation Rate:		70%	70%	75%	75%	80%	80%	80%
Students Served with New Public Funding (Participation Rate)	27,588	15,358	19,083	22,808	26,029	26,178	28,226	28,351	30,369	30,499	30,630
Student Population at 300% FPL	38,130	37,075	37,014	37,044	37,184	37,397	37,635	37,801	37,961	38,124	38,288
Total 4-year-old Student Population	75,314	73,434	73,330	73,402	73,724	74,182	74,674	75,020	75,366	75,717	76,072
Total Cost to State and Locals	\$143.6	\$129.7	\$182.7	\$245.1	\$306.5	\$335.2	\$361.4	\$363.0	\$388.8	\$390.5	\$392.2
Cost Estimates to Serve 4-year-olds between 300% and 600% of Federal Poverty Level (Sliding Scale)											
			Participation Rate:		70%	70%	75%	75%	80%	80%	80%
Total Slots (in Public and Community Settings)						7,785	10,563	13,641	18,116	24,802	34,691
Students Served with New Public Funding (Participation Rate)						16,307	16,419	17,675	17,762	19,038	19,134
Student Population between 300-600% FPL						23,294	23,454	23,566	23,682	23,798	23,916
Total Cost to State and Locals						\$55.9	\$75.8	\$97.9	\$127.4	\$136.6	\$137.3
Cost Estimates to Serve 3-year-olds at or below 300% of Federal Poverty Level											
			Participation Rate:		80%	80%	80%	80%		80%	80%
Total Slots (in Public and Community Settings)		21,035	15,447	9,860	6,316	0	0	0	354	5,764	15,557
Minimum Slots Required to be Offered	0	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Full-day Slots Offered to Meet Minimum	0	3,726	7,442	11,172	14,958	18,812	22,715	26,612	30,539	34,498	38,492
Students Served with New Public Funding (Participation Rate)	currently 3574	2,981	5,953	8,938	11,966	15,049	18,172	21,290	24,431	27,598	30,794
Student Population at 300% FPL	38,266	37,258	37,208	37,241	37,394	37,623	37,858	38,018	38,173	38,331	38,492
Total 3-year-old Student Population	76,526	74,691	74,604	74,681	75,026	75,513	76,004	76,341	76,681	77,026	77,376
Total Cost to State and Locals		\$25.2	\$57.0	\$96.1	\$74.4	0	0	0	\$4.5	\$73.8	\$199.2

New tuition assistance programs will be provided for prospective and current child care professionals pursuing a CDA certificate (one year), associate's degree (two years), or bachelor's degree (four years). The average cost of each certificate or degree program is \$2,200, \$6,000, and \$30,000, respectively. For each tuition assistance program, 100 new candidates are assumed to receive a scholarship annually, so the two-year associate's degree program will serve 200 candidates beginning in year 2 and the four-year bachelor's degree program will serve 400 candidates beginning in year 4. Therefore, new expenditures increase by \$1.5 million in year 1, \$5.0 million in year 4, and \$7.0 million in year 10.

Element 1c. School readiness for all entering kindergarteners: Local expenditures in jurisdictions that decide to administer a portion of the assessment during the summer months will increase to compensate teachers at the local per diem rate. It is assumed that it takes an average time of 30 minutes per student to administer the non-observational components of the KRA. Based on an average class size of 21 students, it is estimated that two working days per classroom will be required (630 minutes). Based on an average of 128 kindergarten classrooms in each school system, it will take on average 1,344 hours for a system to administer the non-observational portions of the assessment. Actual costs will depend on the number of classrooms in school systems that administer a portion of the KRA prior to the beginning of the school year and the local per diem rate.

Element 1d. Education and support services for children ages 0-5 and their families:

Judy Centers: Nine new centers will open each year in the first five years and 18 centers will open each year in the next five years for a total of 135 new centers. Assuming an annual State grant of \$330,000 per Judy Center, new expenditures increase by \$3.0 million in year 1, \$14.9 million in year 5, and \$44.6 million in year 10.

Family Support Centers: Three new centers will open each year so that by year 10, the number of Family Support Centers will have increased from 25 to 55. Assuming an annual State contribution of \$330,000 per center, new expenditures increase by \$990,000 in year 1, \$5.0 million in year 5, and \$9.9 million in year 10.

Maryland Infants and Toddlers: Although a funding formula is specified in statute, State funding levels have remained constant at \$10.4 million since 2009. If the State instead funds the program at the statutory level (\$6,210 per child multiplied by 20%, per the statutory formula), expenditures increase by \$1.2 million in year 1, \$6.1 million in year 5, and \$12.3 million in year 10 over current funding levels. This assumes that the number of children being served by the program (18,251) remains constant.

As shown in Exhibit 4.4, the annual new cost for all of the elements in Policy Area 1 is estimated to be \$29 million in year 0 (fiscal 2020) and increases to \$814.4 million by year 10. The costs in the exhibit represent the total cost of this policy area in isolation from other policy areas. See Chapter 5 for an explanation of how overlaps in costs with other policy areas were accounted for and cost savings.

Exhibit 4.4: Total Estimated Additional Cost

Policy Area 1 – Early Childhood Education (in \$ millions)

Year		FY 20 0	FY 21 1	FY 22 2	FY 23 3	FY 24 4	FY 25 5	FY 26 6	FY 27 7	FY 28 8	FY 29 9	FY 30 10
Element 1a	Pre-K Expansion											
	3-year-olds (low income)	0.0	25.2	57.0	96.1	74.4	0.0	0.0	0.0	4.5	73.8	199.2
	4-year-olds (with sliding scale)	29.0	129.7	182.7	245.1	306.5	391.0	437.2	460.9	516.3	527.1	529.5
	1a total	29.0	154.9	239.7	341.2	380.9	391.0	437.2	460.9	520.8	600.9	728.7
Element 1b	Capacity building											
	existing programs		0.8	1.6	2.5	3.5	4.6	5.8	7.2	8.6	10.3	12.0
	tuition assistance		1.5	2.7	3.7	4.7	5.0	5.4	5.7	6.1	6.5	7.0
	1b total	0.0	2.2	4.3	6.2	8.3	9.7	11.2	12.9	14.7	16.8	19.0
Element 1d	Expand Judy centers		3.0	5.9	8.9	11.9	14.9	20.8	26.7	32.7	38.6	44.6
	Expand family support centers		1.0	2.0	3.0	4.0	5.0	5.9	6.9	7.9	8.9	9.9
	Fully fund Infants & toddlers		1.2	2.5	3.7	4.9	6.1	7.4	8.6	9.8	11.1	12.3
	1d total	0.0	5.2	10.4	15.6	20.8	25.9	34.1	42.3	50.4	58.6	66.7
	Total	\$29.0	\$162.3	\$254.4	\$363.0	\$409.9	\$426.6	\$482.5	\$516.0	\$586.0	\$676.3	\$814.4

Note: Costs reflect total costs, which may include State and local funds. Element 1c does not have additional costs.

Policy Area 2

High-quality and Diverse Teachers and Leaders

As discussed further in the Commission's Preliminary Report, in the process of conducting its gap analysis, the Commission learned that in essentially every high-performing school system in the world, teaching is regarded as a high-status profession. In these systems, teachers typically come from the upper ranks of high school graduates, standards for getting into teacher education programs are high, compensation is comparable to that of other occupations requiring the same amount of university education, and, once young people choose a career in teaching, they tend to stay in it as long as those who become doctors, engineers, and attorneys stay in theirs.

None of this is true for teachers in the United States in general or for those in Maryland in particular. Teachers make substantially less than other university graduates with the same number of years of education. They tend to come not from the top of their high school graduating classes. Once in teaching, they stay in teaching half the time that their fellow university graduates stay in the high-status professions they chose instead. And these trends are getting worse. Another major difference between the teaching profession in high-performing systems and the United States is the conditions under which teachers work. For most teachers in the United States, the job on the last day of work is pretty much the same as the job on the first day of work. That job is instructing students, mostly in isolation from other teachers, for as many hours a day as possible.

Structure the work of teachers as professional work, offer them a real career, pay them like professionals and treat them like professionals, and they will do a first-rate job.

That is not how the top-performing systems organize the work environment in their schools. In those countries, teachers' work is organized more like the work of other professionals. They have real careers in teaching. Like other professions, as they gain more expertise, they get more responsibility, authority, status, and compensation. They do not just close the door of their classrooms and work alone; they work in teams, pooling their expertise as they create first-rate lessons, observe and critique each other's teaching, develop strategies to help students who are falling behind and monitor their progress, and much more. The instructional leadership in American schools is expected to come exclusively from principals; in the top-performing countries, most of the leadership comes instead from teachers in leadership positions. The principal's job is to orchestrate this whole complex of activity, from structuring the teams to deciding who leads them to selecting faculty members. The international data are clear: structure the work of teachers as professional work, offer them a real career, pay them like professionals and treat them like professionals, and they will do a first-rate job.

Turning teaching into a high-status profession that top-performing Maryland high school graduates want to pursue will not be easy. The State will have to substantially raise its standards for entering the profession of teaching, provide strong incentives for high-quality high school graduates to choose teaching, make a special effort to make

sure those students reflect the diversity of the school population, raise the standards for accrediting university teacher education programs, increase the rigor of the teacher preparation curriculum, put much more emphasis on including in teacher preparation a high-quality experience for aspiring teachers in real and diverse schools that provide for teachers the same kind of experience that aspiring doctors get in good teaching hospitals, create career ladders for our teachers modeled on the best career ladders in the world, shift from a compensation system based on time in service and courses taken to a compensation system based on advancing demonstrated expertise, reorganize our schools to give teachers the time to work in teams to systematically improve their schools, and make sure that the State teacher education programs are designed to support the whole system envisioned for the schools by this Commission. The Commission is recommending exactly that.

It will take close to a decade to fully implement these initiatives. None of them stands alone.

It will take close to a decade to fully implement these initiatives. None of them stands alone. They constitute one integrated system, a system expected to create a new profession of teaching that yields for Maryland students the best teaching in the world, an indispensable component of a high-performance education system.

Element 2a: Teacher preparation will be much more rigorous, and induction will be integrated with teacher preparation more systematically.

Design Assumptions:

1. Universities offer teacher training programs and evaluate their students' competencies at a level of rigor comparable to the countries with the top student performance by:
 - a. Requiring all future teachers to pass a set of courses and demonstrate competencies in basic research skills and methods and training on how to routinely evaluate and use research and data to help teachers improve student performance.
 - b. Requiring future teachers to take courses and demonstrate competencies, including racial awareness and cultural competence, designed to enable them to teach the Maryland curriculum frameworks, including how to teach students from different racial, ethnic, and economic backgrounds as well as different learning abilities and social/emotional needs and how to implement restorative practices in such a way to enable students to reach the college- and career-readiness standards.
 - c. Requiring elementary teachers to take courses in the core subjects they will teach in order to have deep content knowledge in the core subjects in elementary school.
 - d. Requiring future teachers to take courses and demonstrate competencies to enable them to conduct expert assessment of the typical deficits students have as they work to succeed in courses, as well as the techniques most likely to help students with those deficits.

- e. Requiring future teachers to take courses and demonstrate competencies to enable them to recognize and effectively use high-quality instructional materials (including online) and to adapt existing curriculum to make it stronger using standards-aligned tools, including the ability to use digital resources and computer technology.
 - f. Requiring future teachers to learn the skills necessary and demonstrate competencies to effectively manage student behavior.
 - g. Requiring teacher candidates to pass edTPA, Praxis Performance Assessment for Teachers (PPAT), or a similar performance-based assessment in order to exit a Maryland teacher preparation program no later than five years following implementation of the enabling legislation.
2. The practicum in teacher training will produce teachers whose knowledge and skills are comparable in every way to the knowledge and skills of the teachers produced by the teacher training institutions in the top-performing countries.
- a. Prospective teachers will complete a full school year of practical experience prior to completing an undergraduate teacher education program no later than five years following implementation of the enabling legislation. Master's degree programs in teaching must have a practicum of at least 100 days, but universities are encouraged to offer a full-year practicum.
 - b. All practicum (internship) experiences will be the shared responsibility of the public school district partners, private and nonpublic special education schools, and public and private institutions of higher education. Shared responsibility means that the school districts will share accountability for finding placements for qualified candidates and will compensate qualified "supervising" or mentor teachers (using career ladder criteria as a major criteria for selection). Institutions will collaborate with supervising/mentor teachers to evaluate teacher interns and ensure the interns demonstrate all necessary competencies required of teachers.
 - c. The practicum can be consecutive or occur throughout the teacher training program. Extended induction programs beyond the required practicum are encouraged, with special attention to authentic (financial and accountable) partnerships between universities and school districts. Teacher education majors should have an opportunity to have a classroom observation experience early in the program to determine if they have the aptitude and temperament for teaching, and universities are encouraged to allow students to have experiences in different school settings.
 - d. Institutions and schools/school districts are encouraged to be creative and flexible in incorporating the additional practicum requirement into the existing program of study. Institutions must show cause to expand the

teacher preparation program by up to 12 credits, but in no case should more than 132 credits be required to receive a teaching degree.

- e. Further, the Maryland State Department of Education (MSDE), the Maryland Higher Education Commission (MHEC), and the institutions should review the current State requirements for teacher preparation programs to ensure that they are aligned with the Commission's recommendations. To the extent they are not aligned and are extraneous, redundant, or no longer necessary, those requirements should be eliminated to allow students to complete the practicum within the existing 120 credits required to earn a degree.
 - f. The instructional system and work organization of schools where teachers in training will be placed for their practicum will be designed to reflect the recommendations of the Commission.
 - g. Mentors of practicum programs will be highly competent teachers (*e.g.*, Master Teachers on the career ladder) selected by the district to instill in the next generation of teachers the kinds of skills, attitudes, values, and knowledge they want in the people they hope to attract to teaching in their district.
- 3. Prospective teachers will develop strong action research skills through their university training as well as through completing their practicum.
 - a. The schools in which they practice will have all of their improvement strategies accompanied by research projects designed to gauge the extent to which those strategies achieve their goals.
 - 4. Mentors for induction programs, like those of practicum programs, will be highly competent teachers selected by the district to instill in the next generation of teachers the kinds of skills, attitudes, values, and knowledge they want in the people they hope to attract to teaching in their district. The design of the induction program should build on the Teacher Induction, Retention, and Advancement Pilot Program currently being piloted in the State and utilize teachers in the Teacher Leadership Track of the career ladder.
 - 5. Teacher training programs and districts must collaborate regularly and develop closer working relationships to strengthen teacher preparation, induction, and ongoing professional development, including financial memorandums of understanding. MSDE must increase its capacity to provide technical assistance and support to teacher training programs and develop a systematic means of providing feedback to ensure that the universities are better informed about the content and expectations of preK-12 classrooms.
 - 6. Universities offering graduate-level courses in school administration for certification must ensure (through the MSDE/MHEC program approval process) that they carefully evaluate the potential of candidates to be effective school leaders and that the curriculum will enable graduates to successfully

organize and manage schools and systems in such a way as the top-performing systems, including managing highly skilled professionals in a modern professional work environment and effectively conducting peer observation and evaluation of other personnel. This will include both a clinical experience and an assessment to determine if candidates demonstrate the skills described above.

Implementation Decisions:

1. At first, collaboratives of districts, university-based teacher training institutions, and exclusive employee representatives will be seed grant funded, including an evaluation component, to create 21st century practicums that build on the professional development schools currently in the State but may be offered at a broader, more diverse set of schools that will be affiliated with the universities and organized and managed to provide state-of-the-art professional education for prospective teachers that reflects the best practices of the top-performing countries.
 - a. The schools offering practicums will be organized in a career ladder system with a work organization consistent with the description of high-performance work organizations provided in the Commission report.
 - b. Those members of the school faculty serving as Professor Master Teachers on the career ladder will hold appointments as clinical or adjunct faculty at the university and may teach in both institutions.
 - c. The members of school faculty serving in the Lead Teacher and Master Teacher rungs of the career ladder will be responsible for designing the school's induction program for new teachers and mentoring new and struggling teachers. Districts will be responsible for making time available for Lead and Master Teachers to perform these roles, as described in Element 2i, during the normal work day as part of their professional responsibilities for which they are being compensated under the career ladder.
 - d. Both university faculty and district-based school faculty will be expected to be fully conversant with the policies and practices of professional development schools in the top-performing countries and to have the skills and knowledge needed to adapt those policies and practices to the needs of their own students.
2. The State will initially make seed grant awards available to the strongest applicants who apply to be a collaborative. Future awards will be contingent on strong performance and implementation of the design laid out in the applications.

To create 21st century practicums that build on the professional development schools currently in the State but may be offered at a broader, more diverse set of schools that will be affiliated with the universities and organized and managed to provide state of the art professional education for prospective teachers that reflects the best practices of the top performing countries

3. These schools offering practicums will be public schools with student bodies reflecting the diversity of public schools in the State or, if not possible, the diversity of the geographic area in which the school is located.
4. The State will make additional grants available in years 1 through 4 as word spreads and the initial grantees become proof points for the success of the effort.
5. In year 5, an evaluation will be done. Results of the evaluation will determine whether to continue the competitive grant program or whether to require all institutions throughout the State to meet the grant criteria through legislation, with some modifications based on the experiences of the pilot program grantees.

Element 2b: Raise standards for licensing new teachers in Maryland to levels comparable to the standards for teachers in the top-performing nations.

Design Assumptions:

1. Teachers will be required to pass a test of teaching ability to earn an initial Maryland license (*e.g.*, PPAT, edTPA) no later than five years after implementation of enabling legislation. This requirement applies to all new teachers, including alternative preparation programs, except those who are teaching career and technical education courses. Teachers coming from out of state must pass the assessment within 18 months of being hired by a Maryland district or hold an active National Board Certification (NBC) from the National Board for Professional Teaching Standards (NBPTS). After sufficient data has been collected that demonstrates that one assessment is more valuable than another, the State should adjust the licensure requirement.
2. Teachers will be required to pass State-specific exams of teacher mastery of reading instruction and content that will be at least on par with the rigor of Massachusetts for elementary education (K-6) and for the middle and high school grade levels by a date certain.
3. As new teacher standards and assessments are being developed and implemented, the State should be aware of and monitor any negative impact on the diversity of teacher candidates passing the assessments.
4. The competencies laid out in Element 2a, Design Assumption 1 will also be evaluated throughout the teacher education program and practicum.
5. Teacher candidates who are midcareer changers and taking the one-year alternative certification option will participate in a three-year mentorship and induction program under an experienced mentor.
6. Alternative teacher preparation programs must require a minimum teaching practicum of at least 100 hours within one year of enactment of the enabling legislation (no earlier than the summer of 2020), and at least a full school year

no later than five years after enactment. The teaching practicum includes preparing lesson plans, teaching, debriefing, and observing a class of students to which the student teacher is assigned and must include at least 40 hours of teaching during class periods.

7. The State Board of Education and the State's Professional Standards and Teacher Education Board, under their existing authority, shall adopt regulations to implement these new requirements.

Implementation Decisions:

1. The State will examine whether the current Basic Literacy Skills Test is on par with the rigor of Massachusetts and, if not, will require a new literacy test as soon as the test is developed (first-time pass rate in Massachusetts is currently 84%). Teacher candidates will continue to be able to retake the test as many times as needed to pass.
2. The State will roll out more challenging special subject tests, on par with the rigor of Massachusetts, tailored to the subjects teachers will teach (for example, English for high school, math for high school, history for high school, etc.) after implementation of the new literacy test (if required). The State or the contracted vendor will develop standards for these exams first and release these standards to teacher preparation institutions four years in advance of when the exam will take effect, so that preparation programs can adapt accordingly.
3. Once subject tests are required, test takers can retake the test as many times as needed to pass, if desired. (First-time pass rate in Massachusetts is currently 64%.)

Element 2c: Expand teaching scholarships and loan assistance for highly skilled and diverse candidates to teach in high-need schools.

Design Assumptions:

1. House Bill 1415 of 2018 (Chapter 361) provides funding for the Maryland Teaching Fellows scholarship program, which was created in 2014 but never funded, for prospective teachers who commit to teaching in high-need Maryland schools for at least two years if enrolled in a graduate program or the number of years the candidate received an incentive fund award if enrolled in an undergraduate program.
 - a. The scholarship is available to either high school seniors, current college students, or graduate students who:
 - i. are Maryland residents or attended a Maryland high school;
 - ii. earned either:
 1. a GPA of at least 3.0, increasing to 3.3 beginning after five years;

- 2. a combined math and reading SAT score of at least 1100 with neither reading nor math lower than 500;
 - 3. a composite ACT score of at least 25; or
 - 4. the fiftieth percentile on the GRE; and
- iii. have demonstrated aptitude for teaching or exceptional dedication to teaching.
- b. House Bill 1415 defines a “high-need Maryland school” as one in which 50% of students qualify for free and reduced-price meals.
- c. The incentive fund award covers 100% of tuition, room, board, and fees at a Maryland public institution of higher education, or 50% of these costs at a Maryland private nonprofit institution, and fees for exit and licensure exams.
- d. House Bill 1415 requires teacher training programs that enroll 15 or more fund recipients to develop an enriched program of study for such recipients.
- e. MHEC should make best efforts to award scholarships to eligible students in a manner that reflects the geographic and racial diversity of Maryland’s public school students.
- 2. Enhance the existing loan assistance repayment program to serve more teachers.
- 3. Increase awareness of the availability of these programs for teachers.

Implementation Decisions:

- 1. House Bill 1415 has passed the General Assembly and been signed by the Governor. It requires \$2 million annually for the Teaching Fellows scholarship. Funding should be increased to \$4 million in year 2, \$8 million in year 3, \$12 million in year 4, and \$18 million in year 5 and thereafter. Funding should continue at this level until a sufficient number of qualified teachers are produced and remain in the Maryland teaching profession. At such time that this occurs, the State may consider reducing the required amount of funding, but some level of scholarship funding should be maintained to ensure a diverse and qualified cadre of teachers in the State.

Element 2d: Encourage higher education institutions to take advantage of national foundation efforts **to develop highly qualified teachers and leaders from diverse backgrounds.**

Design Assumptions:

1. The State will provide matching funds, as needed, to institutions that secure grants to increase the quality and diversity of the teacher training applicant pool available to teacher training institutions, up to some maximum amount.
2. Teacher preparation institutions engaged in one of the collaboratives described in Element 2a will be required to apply for these grant funds.
3. The State will provide technical assistance with grant writing to those institutions.

Element 2e: Launch statewide public relations and communications initiative to rebrand teaching as an attractive career and attract students from diverse backgrounds and examine local hiring practices to determine if they are contributing to the lack of diversity in the teaching profession.

Design Assumptions:

1. House Bill 1415 of 2018 establishes a teacher outreach and recruitment campaign to be run by MSDE (requires \$250,000 annually).
2. The outreach program will be targeted toward the top 25% of high school students in each county to encourage them to consider teaching.
3. MSDE shall establish a steering committee and consult with that committee on the outreach program and recruitment campaign. The steering committee must include faculty and student representatives of the State's historically black colleges and universities and other institutions as well as the Maryland State Education Association.
4. Once the campaign is successful, the State may consider modifying the campaign by decreasing the amount of funding provided as recruitment becomes less challenging and prestige increases and targeting or limiting the funding provided to certain critical shortage areas or demographic targets, as needed.
5. The program will include:
 - a. a digital recruitment platform comprising free public service and paid media;
 - b. email and social media;
 - c. targeted outreach to interested candidates, with a focus on talented candidates who are historically underrepresented in teaching, particularly teachers of color, and teacher shortage fields; and

The teaching workforce should reflect the diversity of students in the schools.

- d. opportunities to connect candidates to resources about teaching and supervised experiences in schools to get them excited about teaching, including an increased awareness of racial disparities between student demographics and the teaching population.

- 6. The teaching workforce should reflect the diversity of students in the schools. School systems must be aware of the potential that biases in teacher selection are contributing to the lack of diversity among teachers. The districts should review their hiring practices to determine if they are contributing unintentionally to the lack of diversity in Maryland's teaching staff and make changes as appropriate.

Element 2f: Raise teacher pay to make it equitable with other highly trained professionals with the same amount of education.

Design Assumptions:

- 1. Teacher wages and salaries will continue to be negotiated collectively at the local level including cost-of-living increases and increases beyond the State Framework for the Educator Career Ladder.
- 2. The State will conduct periodic benchmarking studies of teacher salaries to include comparability with other professionals with similar education and experience levels at the State and regional levels based on the Economic Policy Institute's list of comparable occupations. Each county and local union will receive from the State at the start of each collective bargaining process the average salary of comparable professionals as identified by the Commission including accountants, architects, and registered nurses (**see Exhibit 4.5 Maryland Occupation/Salaries Comparable Occupations**) in the State and region.
- 3. Over the first three years of implementation, teacher salaries will be increased by 10% to reach the average salary of teachers in Massachusetts and New Jersey (as of 2017) as a head start to improve teacher salaries and make teaching a more attractive profession prior to full implementation of the career ladder. This salary increase is intended to be a base adjustment and not a replacement for annual cost-of-living increases, which will continue to be the subject of collective bargaining.
- 4. Pay increases above and beyond these initial increases and annual cost-of-living increases will largely be a function of movement up the career ladder, described in Element 2g, with the goal that the average teacher salary will reach the average salary of comparable professions in Maryland.
- 5. The Commission appreciates the value that education support professionals provide in schools. Although the Commission's recommendations are focused on certificated personnel, it urges districts to consider increasing education support professional salaries as teacher salaries increase.

Teacher salaries will be increased by 10% as a head start to make teaching a more attractive profession.

Implementation Decisions:

1. State and local formula funding will support increases to teacher pay in accordance with implementation of the base increase (10%) and the career ladder.
2. Pay increases will go hand in hand with higher teacher standards.

Exhibit 4.5: Maryland Occupation/Salaries
Comparable Occupations

Occupation Code	Occupation Title	Total Employees	Mean Annual Salary	Median Annual Salary
13-1075	Labor Relations Specialists	1,380	\$67,770	\$70,440
13-1151	Training and Development Specialists	1,140	130,630	121,630
13-2011	Accountants and Auditors	26,230	80,930	72,900
15-1131	Computer Programmers	4,710	89,090	82,320
17-1011	Architects, Except Landscape and Naval	2,440	90,740	84,260
19-1031	Conservation Scientists	470	75,940	65,450
25-4011	Archivists	340	68,850	61,750
25-4012	Curators	160	58,670	55,970
27-3041	Editors	2,230	61,870	57,290
27-3042	Technical Writers	2,180	78,260	77,290
29-1122	Occupational Therapists	3,300	85,620	87,750
29-1123	Physical Therapists	4,930	86,840	89,010
29-1141	Registered Nurses	53,700	75,250	74,120
13-1041	Compliance Officers	7,510	76,000	73,530
Mean			\$80,461	
25-2021	Elementary School Teachers, Except Special Education	24,670	\$67,340	\$65,740
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	19,830	69,070	67,830
25-3097	Teachers and Instructors, All Other, Except Substitute Teachers	9,570	58,150	53,290
21-1012	Educational, Guidance, School, and Vocational Counselors	6,170	63,840	61,050
Mean			\$64,600	
Teacher Mean Difference			-24.6%	

Source: Economic Policy Institute, 2017; APA Consulting; Department of Legislative Services

Element 2g: Develop career ladders for teachers and school leaders comparable in design to the career ladders found in Singapore and Shanghai, with respect to standards for advancement and relationship to the system for compensating teachers and school leaders.

Design Assumptions:

1. The State will provide a set of design parameters for the career ladder system. Although districts can implement the ladder in different ways, they must remain within these parameters or they will not be eligible for additional State funding tied to implementing the career ladder (see **Exhibit 4.6 Maryland Career Ladder for Educators**).
2. There are many more teachers at the bottom rungs of the ladder than at the top.
3. Movement up the ladder is a function of performance and experience, (*i.e.*, knowledge, skills, and responsibilities) as well as availability of the position the teacher is seeking.
4. The ladders will have two tracks: Teacher Leadership Track and Administrative Track.
5. Teachers can move laterally across the tracks if their interests change.
6. The first two levels will be common to both tracks: State-licensed Teacher and NBC Teacher.
 - a. Roughly 50% of all teachers will be on one of these two levels and another 20% will be National Board Certified.
 - b. During the first years of implementation, roughly 10% of all teachers will opt not to participate in the career ladder and will continue on the Advanced Professional Certificate (*i.e.*, master's degree/30 credits) path.
 - c. At least 5 years after enactment of legislation implementing a career ladder, *and* when the Maryland NBC pass rate reaches the national average (currently 65%), new teachers receiving a Maryland teaching certificate must participate in the Educator Career Ladder and are not eligible for salary increases based on years of experience and degrees or credits. By the tenth year of teaching, they must achieve NBC. Until NBC is achieved, their salary is frozen except for cost-of-living increases. Teachers with 20 or more years of experience who choose to pursue NBC must complete it within 5 years of the legislation's enactment.
 - d. During the transition period (after enactment of legislation but prior to the threshold requiring all new teachers to pursue NBC), existing teachers may pursue NBC and if they achieve NBC, they will go onto the career ladder, receive the associated NBC salary increase, and are not eligible for salary increases based on years of experience and degrees or credits.

Existing teachers who already hold NBC and are receiving a stipend will immediately receive the NBC salary increase (and no longer receive the stipend).

- e. Teachers for whom there is no assessment comparable to NBC in their subject area may earn a master's degree/30 credits in an approved program of study.
 - f. After the career ladder is fully implemented, and after all new teachers entering the State will be expected to pursue NBC because of its performance-based approach, local education agencies (LEAs) should continue to encourage master's degrees in fields that require special expertise, shortage areas, and enhance educators' professional skills and their qualifications to teach dual-enrollment courses as adjunct faculty at colleges and universities. In appropriate areas, LEAs, through collective bargaining, should provide additional compensation for achieving a master's degree.
 - g. Once the career ladder is fully implemented and all new teachers in Maryland are required to hold NBC, teachers must renew their NBC every 5 years in order to continue to hold a Maryland teacher certificate and to receive the salary increase associated with NBC renewal under the proposed career ladder. (Current teachers who opt not to participate in the career ladder and do not choose to pursue NBC will be required to hold an Advanced Professional Certificate.) NBC teachers who fail to earn renewal will be given a 1-year grace period to complete the recertification (and will not receive the associated salary increase until renewal is completed). If they do not receive NBC, their salary is frozen except for any cost-of-living increase. After 25 years or more of experience, NBC renewal is optional.
7. Roughly 12% of all teachers are on the Teacher Leadership Track.
8. Teachers on the Teacher Leadership Track are responsible for mentoring their peers and serving as expert resources on content and pedagogy for their school, their district, and the State.
- a. There will be three levels on the Teacher Leadership Track: Lead Teacher, Master Teacher, and Professor Master Teacher.
 - b. Districts will draw their mentor teachers for induction programs and teacher training practicums from this track.
 - c. Districts will draw experts to write curriculum and assessment items and develop model lessons from the highest levels of this track.
 - d. For the purposes of costing out, it is assumed that most teachers in the Teacher Leadership Track will be Lead Teachers (level 4A-1), with a small

number of Master Teachers (level 4A-2), and very few Professor Master Teachers (Level 4A-3).

- e. *Lead Teacher:* This step on the ladder certifies that the holder has:
 - i. all the knowledge and skill required for the previous steps on the ladder;
 - ii. the capacity to lead other teachers working in teams to improve the curriculum, instruction, and assessment in the school in an effective and disciplined way;
 - iii. the skills and knowledge needed to mentor new teachers and other less skilled teachers to enable them to develop their skills;
 - iv. sufficient expertise in research, especially action research, to lead teacher teams that will use research to develop programs, curriculum, teaching techniques, and other interventions; and
 - v. conduct formal evaluations to determine the extent to which those interventions are successful, correcting course as necessary to produce the outcomes for students they want.
- f. Lead teachers will teach roughly 50% of their working hours and spend most of the additional time mentoring newer and struggling teachers and leading workshops and demonstrations at the school level. In countries with well-developed career ladders, teachers are not able to ascend the career ladder without showing that they are constantly learning from their fellow teachers and sharing their expertise with others. School leaders in the top-performing countries are held responsible for identifying teachers with leadership potential and giving them opportunities to grow and develop.
- g. Consistent with other professional occupations in which labor and management assume mutual accountability for success, the selection of Lead Teachers will be made from a list of candidates proposed by Master and Professor Master Teachers and, in the short-term until there are a sufficient number of Master and Professor Master Teachers in each school system, by other Lead Teachers, and approved by the school principal and superintendent.
- h. *Master Teacher:* Teachers on this step of the ladder have demonstrated exceptional skill in all the areas described for Lead Teacher to the degree that they are ready to assume responsibility for leading the work of other Lead Teachers. Ways of demonstrating this skill include:
 - i. the people they have mentored will be unusually capable;
 - ii. the teams they have led will have consistently produced unusually effective improvements in curriculum, instruction, and assessment;

In countries with well-developed career ladders, teachers are not able to ascend the career ladder without showing that they are constantly learning from their fellow teachers and sharing their expertise with others.

- iii. their research will be published in refereed journals and they will be in great demand within and beyond their school and district to counsel and guide others on the basis of their achievements;
 - iv. they will have high ethical standards and know how to promote a school culture in which all students are expected to achieve at high levels and all professionals are expected to do whatever it takes to make their students successful; and
 - v. they are widely admired “teachers of teachers” who can inspire, guide, and develop others to achieve real competence.
- i. These teachers will teach roughly 40% of their working hours and spend most of the additional time mentoring Lead Teachers and leading workshops and demonstrations at the school and district level.
 - j. Consistent with other professional occupations in which labor and management assume mutual accountability for success, the selection of Master Teachers will be made from a list of candidates proposed by Professor Master Teachers and, in the short term until there are sufficient Professor Master Teachers in each school system, by other Master Teachers, and approved by the school principal and superintendent.
 - k. *Professor Master Teacher*: The top step on the teachers’ ladder is reserved for a very small number of professionals whose exceptional accomplishments entitle them to very special recognition. They are:
 - i. among the very best teachers, leaders of teachers, and developers of leaders;
 - ii. researchers who have as many published research papers to their credit as university professors, hence the title; and
 - iii. equally qualified to teach in university and in school, and to play leadership roles in both places.
 - l. This step is particularly appropriate for key senior faculty members in professional development schools, particularly senior teachers in those schools that hold a doctorate and are also qualified to serve as clinical professors in the university.
 - m. These teachers will be primarily based at universities, serving as the mentors and instructors of teachers in training, mentoring new teachers in induction, and designing and leading professional development across the State.
 - n. Professor Master Teachers will be selected by LEAs in partnership with institutes of higher education (IHEs).
 - o. Standards for level 4 will be set by a local oversight board made up of advanced teachers and other stakeholders and will use statewide criteria as

minimum criteria and have the option to add additional criteria to their vetting process. To achieve level 4 certification, they must take on additional roles, responsibilities, and utilize advanced knowledge such as:

- i. consulting teachers (those used in peer assistance and review programs);
 - ii. staff development teachers;
 - iii. elementary team leaders;
 - iv. secondary department chairs or resource teachers;
 - v. mentors;
 - vi. curriculum developers; and
 - vii. school-based educators facilitating collaborative efforts.
- p. Serving in these roles requires some continued teaching responsibility (*e.g.*, teaching approximately 40-50% of working time) unless they are out of the classroom (*i.e.*, a consulting teacher providing assistance, doing observation and/or evaluations) for a full year or longer, in which case, after a time specific, they must return to the classroom.
- q. To achieve this level, among other requirements, teachers must have the following competencies:
- i. teaching in diverse communities (this includes low-performance, high-poverty schools or possibly low-performing, high-poverty students within predominantly middle-class schools);
 - ii. leadership in professional development and mentoring;
 - iii. successful passing of objective assessments (grading videos, etc.);
 - iv. demonstrating accomplished instruction (to diverse populations);
 - v. credibility among peers; and
 - vi. demonstrating success in advancing colleagues instructionally.
9. Roughly 5% of all teachers are on the Administrative Track.
10. Teachers on the Administrative Track are responsible for managing administrative functions in the school. This track develops teachers to be school principals.
- a. The primary way to become a school principal is to advance along this track. Similarly, the primary way to become a director-level staff of a district department is to advance along this track. However, districts must allow some flexibility in order to ensure that uniquely talented individuals from backgrounds outside education may still become school leaders. To

that end, assistant principals are required to achieve either NBC or advanced professional certificate for administrators.

- b. There will be two levels on the Administrative Track: Licensed Principal and Master Principal.
- c. Additional levels may be added to this track for district office directors depending on the structure of the district central office and the staffing needs.
- d. For the purposes of costing out, it is assumed that about 4% of teachers will become a Licensed Principal, very few (less than 1%) will become a Master Principal.
- e. *Licensed Principal:* This step on the ladder will be attained by candidates who meet the requirement set by the State for full certification as principals.
- f. This is sometimes not attained until after new principals complete an induction program or training program for newly serving principals.
- g. Like existing and new teachers, all principals must receive training and demonstrate competencies in racial awareness and cultural competence, including how to teach students, and manage teaching faculty, from different racial, ethnic, and socioeconomic backgrounds as well as implementation of restorative practices.
- h. *Master Principal:* Applicants who meet this standard will have shown that they have the skills and knowledge needed to:
 - i. effectively identify, attract, lead, and retain highly professional teachers;
 - ii. organize and manage their school so as to support those teachers in a way that provides them strong incentives and support to do the best work of which they are capable;
 - iii. set high standards for themselves, their faculty, and their students;
 - iv. get all the stakeholders on board with their vision and the strategic skills needed to execute on that vision;
 - v. identify teachers with the highest potential and to help them develop that potential;
 - vi. help students, parents, and teachers embrace the conviction that all of the students can reach internationally competitive standards and do whatever it takes to get there;
 - vii. develop other principals;
 - viii. support other principals; and

All principals must receive training and demonstrate competencies in racial awareness and cultural competence.

ix. lead other principals to very high levels of performance.

11. Master Principals will be selected from a list of candidates who have earned NBC as proposed by teacher leaders and other Master Principals and approved by the superintendent.
12. Teachers can move between tracks with approval from their principal.
13. Teachers cannot be promoted up the ladder without receiving positive evaluation of instruction by at least the principal and others, as required by the district, and unless there is an opening for the position into which they wish to move.
 - a. Promotion requires mutual agreement with their principal or supervisor and others, as required by the district, that they are ready to take on the responsibilities at the next level and the understanding that they must complete those responsibilities to remain in good standing.
 - b. Because promotion happens only when there is an opening for the position in question, promotion is not guaranteed.
14. In general, the highest levels of the ladder should be reserved for exceptional teachers and leaders, with no more than 1% attaining the highest levels.
15. Although individual bargaining units may have different salary scales (and salary sublevels within each rung of the ladder, if needed), the State expects that moving up each level in the career ladder will result in at least a minimum pay increase as defined in the State framework.
16. The State should use its program approval powers to require IHEs that offer programs leading to school leadership certifications to carefully evaluate the potential of candidates to be effective school leaders, including evidence that the identified candidate has a record of successful teaching and has performed well in teacher leadership roles.
17. IHEs wishing to offer graduate-level courses in school administration for certification should present evidence that their curriculum will enable their graduates to (1) successfully organize and manage schools and school systems as recommended by the Commission; (2) manage highly skilled professionals working in a modern professional work environment; and (3) effectively conduct peer observation and evaluation of other school personnel.
18. As the success of a school leader grows as demonstrated by positive evaluations and movement up the career ladder, more autonomy should be provided to that school leader for making school-level decisions.
19. Successful school leaders should have significant experience and success in schools that represent the demographic and socioeconomic diversity of the school system, and in the upper levels of the career ladder school leaders should

Successful school leaders should have significant experience and success in schools that represent the demographic and socioeconomic diversity of the school system.

serve as mentees to new leaders of schools serving large proportions of low-performing students.

20. A critical role for principals is to cultivate a school environment in which teachers develop cultural competence, enhance empathy and respect for students, eliminate biases and stereotypes, and assume that all students regardless of their race/ethnicity/gender, etc. are capable of the highest levels of academic achievement. Principals should be evaluated on their success in fostering such school environments.

Implementation Decisions:

1. The State framework provides design parameters, including titles and criteria for movement up the ladder, to districts as outlined above and described below. Districts and unions are free to implement a wide variety of designs (including determining pay scale, roles for teachers within schools, the process for grandfathering in teachers, and process for posting and hiring for needed positions) as needed as part of collective bargaining, provided they remain within the design parameters outlined by the State, or they risk losing out on State funding.
2. **The guiding principles for the Maryland Career Ladder for Educators are:**
 - a. salary that attracts new teachers to the profession;
 - b. salary that incentivizes existing teachers to opt in to the career ladder (higher salary earlier in career, greater lifetime earnings, meet/exceed master's degree at 30 years of experience);
 - c. progressing in teacher salary as performance increases as demonstrated by achieving NBC;
 - d. career ladder incentivizes teachers to stay in the classroom without moving to the Administrator Track (Lead/Master/Professor Master Teachers); and
 - e. these principles must work in all 24 school systems.
3. Other than a minimum teacher salary of \$60,000 by year 5 of implementation, specific salaries will be left up to districts.
4. NBC fees (including initial and renewal fees) will be provided by State and local funds and the district will serve as the payor to the NBC organization.
5. Existing teachers holding NBC and having received positive performance evaluations can move up the career ladder upon implementation of the career ladder and receive the designated salary increase; current NBC stipends will terminate at that time.

6. Proposed raises associated with the career ladder are shown below:

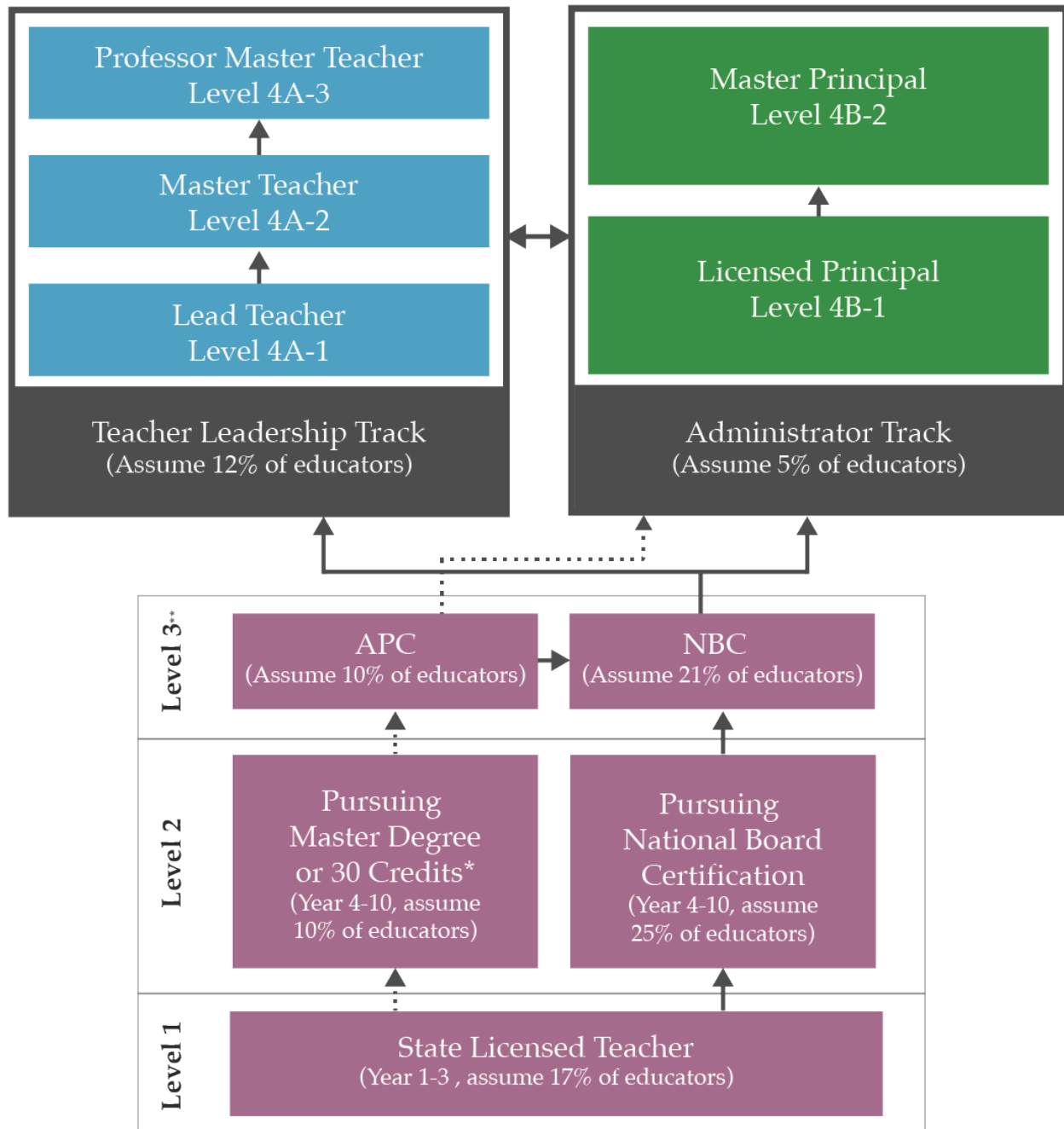
	Salary Increase
Total raise for earning NBPTS certification	\$12,000
Additional raise for low-performing schools	\$5,000
Raise for earning 1 st recertification	\$8,000
Raise for earning 2 nd recertification	\$7,000
Raise for earning 3 rd + recertification	\$6,000
Raise for Lead Teacher	\$5,000
Raise for Master Teacher	\$10,000
Raise for Professor Master Teacher	\$15,000
Raise for earning MA/APC	3.0%
Raise for Master Principal	\$15,000

NBPTS: National Board for Professional Teacher Standards

MA: master's degree

APC: advanced professional certificate

Exhibit 4.6: Maryland Career Ladder for Educators



* 30 Credits in an approved program of study

** Educators in Level 3 include Assistant Principals
Dotted lines are transition plan for existing teachers and administrators.
Teachers pursuing NBC may also be pursuing a Master's Degree.

Element 2h: Train the State Superintendent and the 24 local superintendents; their senior, instruction-related staff; State and local board of education members; and school principals to give them the vision, motivation, skills, and knowledge they will need to implement the recommendations made in the Commission's report.

Design Assumptions:

1. The training program for superintendents should include the following content:
 - a. a review of U.S. education relative to top performers and the implications for students, the country's economic security, and quality of life;
 - b. a model for strategic thinking that will help leaders transform their districts;
 - c. a working knowledge of the research on how students learn and its implications for instructional redesign, curriculum, and professional learning;
 - d. a research-based model for coaching school leaders; and
 - e. lessons in transformational leadership.
2. The training program for school leaders should include the following content:
 - a. understanding of how to organize schools for high performance, including how to build instructional leadership teams; implement career ladders for educators; oversee induction and mentoring systems; and identify, recruit and retain high-quality school leaders;
 - b. a model for strategic thinking that will help the school leaders drive redesign efforts in their schools;
 - c. a deep understanding of standards-aligned instructional systems;
 - d. a working knowledge of the research on how students learn and its implications for instruction, curriculum, and professional development in the content areas;
 - e. a research-based model for instructional coaching;
 - f. an overview of ethical leadership directly tied to the school leaders' responsibility to drive equitable learning in their school; and
 - g. lessons in transformational leadership.
3. Both training programs should include the following characteristics:
 - a. sustained, lasting at least 12-24 months;
 - b. cohort-based so leaders can collaborate and learn from their peers;
 - c. job-embedded, focused on applying learning to problems of practice;

- d. tailored using self-diagnostics and school-level diagnostics; and
- e. evidence-based according to Every Student Succeeds Act guidelines.

Implementation Decisions:

1. After the Commission report is completed and adopted by the State, consider launching a statewide outreach effort to promote all of the Commission's recommendations, including a high-quality media campaign to rebrand teaching as an attractive career. Consider strategies used by top systems such as pro bono services from leading communications firms in the State and region.

Element 2i: Change the way schools are organized and managed to increase the amount of time available for teachers to tutor students who need intensive help and work together in teams to use data and observation to identify students who are falling behind and collaborate on getting them back on track, develop highly engaging and effective lesson plans, mentor new and struggling teachers, and systematically improve the school's instructional program using applied research. This element also includes more support for *existing* teachers, who will not benefit from the comprehensive teacher preparation and induction recommendations made earlier in this report. Professional development and teacher evaluation systems can play a pivotal part in providing that support.

Design Assumptions:

1. Following implementation of the career ladder and reforms to teacher preparation in Maryland, schools will begin to look very different from their current form. The system of work organization in future schools is an advanced leadership development system in which people with more expertise are mentoring those with less expertise (as measured in part by effective evaluation systems) and professional development is primarily embedded within the reorganized school day in which teachers have additional time to engage in professional learning.
2. Effective teacher evaluation systems that provide rigorous, reliable, and relevant feedback for educators is key. An effective system must be aligned with the five core propositions of the National Board for Professional Teaching Standards and include a peer assistance and review model. It must include defined expectations of what evaluators must know and be able to do; calibrated methods to measure performance; and personalized feedback that is aligned with individual strengths, needs, and contexts. To be effective, observations that are used to evaluate teachers should include documented, observable evidence and be linked to student learning and not consist of simple check lists; post-observation conferences that encourage teacher reflection of their teaching practice; requirements to assess observer competency; and full inclusion of stakeholders in developing and understanding the evaluation process, including thorough training for evaluators and parallel training for

Following implementation of the career ladder and reforms to teacher preparation in Maryland, schools will begin to look very different.

Teams of teachers spend substantial time working in teams to develop better lessons and improve their teaching.

teachers who will be observed and evaluated. The implementation plans submitted by each LEA for review and approval must include the teacher evaluation system.

3. In most top-performing education systems, the work of professional teachers demands constant learning, which is mostly woven into the work they do. Teams of teachers spend substantial time working in teams to develop better lessons and improve their teaching. Supplemental professional development opportunities for existing teachers should be provided to support NBC and the content and pedagogical training proposed in Element 2a for new teachers, specifically the training and competencies described in Design Assumption 1.
4. Assumptions for how teachers will allocate their time in an advanced leadership development system within reorganized schools follow.
5. At full implementation, teachers at the Licensed Teacher or NBC level of the career ladder (roughly half of all teachers) will teach classes roughly 60% of their working hours.
 - a. Currently, they are teaching about 80% of their time, so this is a 25% reduction in teaching time.
 - b. The additional time will be used to work in teams with other teachers to improve instruction; identify, work with, and tutor students who are falling behind; manage a caseload of the most challenging students and those from concentrated poverty; and participate in professional learning.
6. Teachers at the Lead Teacher level will teach roughly 50% of their working hours and at the Master Teacher level will teach roughly 40% of their working hours.
 - a. The additional time will enable them to mentor newer and struggling teachers and lead workshops and demonstrations at the school level.
7. Lead and Master Teachers will play a critical role in the induction and mentoring of new teachers and ongoing support of experienced teachers who need help. This work should be guided by partnerships between the school system and teachers' unions such as the successful Peer Assistance and Review (PAR) program, which should be scaled up across the State as quickly as possible. The State should make grants available through the collaboratives (of LEAs, teachers unions, and IHEs) to support the development of PAR programs.
8. Seed funds should also be made available through the collaboratives to support the creation of rigorous professional development programs focused on pedagogy and content knowledge, including training in culturally responsive pedagogy and practice.

9. Teachers at the Professor Master Teacher level on the teaching track (less than 1% of all teachers) will teach roughly 20% of their working hours.
 - a. These teachers will be primarily based at universities, serving as the mentors and instructors of teachers in training, mentoring new teachers in induction, and designing and leading professional development across the State.
10. Assistant principals will teach roughly 20% of their working hours.
 - a. In addition to teaching, they will set priorities for the subject level departments of the school and also fulfill certain specialized roles (for example, the Head of Professional Development at a school would be an assistant principal responsible for monitoring the overall professional learning needs of the school staff and strategizing how to meet those needs).
11. Principals and Master Principals may teach roughly 10% of their working hours in order to keep them connected to teaching and learning within the school.

Implementation Decisions:

1. Phasing in these reductions in teaching time and new forms of work organization will need to be done over 10 years in tandem with implementation of the career ladder and will begin with newly licensed teachers, particularly new teachers in low-performing schools and schools serving a high concentration of poverty. Low-performing schools and schools with a high concentration of students living in poverty and/or large achievement gaps between subpopulations of students will also be a priority during the phase-in, with the phase-in accelerating over time and in coordination with the phasing out of the transitional tutoring program in Element 3c.
2. Teachers will need training in how to collaborate and implement their roles in the career ladder, including:
 - a. how to lead and mentor teams of professionals to promote professional learning among colleagues;
 - b. how to collaborate with colleagues to improve student performance; and
 - c. advanced training in the science of learning specific to individual disciplines.

Developing Total Cost Estimates for Elements in Policy Area 2

Policy Area 2 includes several elements that each carry a significant cost. The cost assumptions used to estimate the additional costs associated with implementing each

Phasing in these reductions in teaching time and new forms of work organization will need to be done over 10 years in tandem with implementation of the career ladder.

of the elements are summarized below. Elements not included below either do not have additional costs associated with them, or their costs are accounted for in other Commission recommendations. Additional detail for each cost element is provided in Appendix 6.

Element 2a. More rigorous teacher preparation that is integrated with induction: The cost associated with making teacher preparation more rigorous and extending the teacher practicum are primarily a repurposing of existing funds by both higher education institutions and school systems. State seed grants of approximately \$2.5 million will be made available to teacher preparation collaboratives of school systems; university-based, teacher-preparation programs; and exclusive employee representatives over two to five years to develop and implement rigorous teacher-preparation programs and practicums. MSDE one-time and ongoing administrative costs increase to build capacity.

Element 2b. Raise teacher licensure standards: MSDE capacity building costs associated with Element 2a are also assumed to cover these costs. Additional costs may be incurred to develop new assessments for prospective teachers.

Element 2c. Expand teaching scholarships and loan assistance for highly skilled and diverse candidates to teach in high-need schools: Scholarship funding increases by \$2 million in year 2 (in addition to \$2 million currently mandated), \$6 million in year 3, \$10 million in year 4, and \$16 million in year 5 and thereafter. It is assumed that funding continues at this level until a sufficient number of qualified teachers are produced and remain in the Maryland teaching profession.

Element 2d. Encourage higher education institutions to take advantage of national foundation efforts to develop highly qualified teachers and leaders from diverse backgrounds and examine local hiring practices: The cost for the State to provide any required matching funds is unknown but assumed to be minimal. Likewise the cost for school systems to examine their hiring practices to ensure bias is not influencing recruitment is unknown but assumed to be minimal.

Element 2e. Launch statewide public relations and communications initiative to rebrand teaching as an attractive career and attract students from diverse backgrounds: No additional cost beyond \$250,000 MSDE currently receives annually for teacher outreach and recruitment.

Element 2f and 2g. Raise teacher pay to make it equitable with other highly trained professionals with the same amount of education and develop career ladder for teachers and school leaders:

1. Minimum salary of \$60,000 for all teachers by year 5 of implementation of the recommendations (10% salary increase in years 1 through 3 plus any cost-of-living increases will also be used to raise the minimum salary to \$60,000).

2. The model includes all teachers, assuming a similar teacher-student ratio to actual ratios from recent years, as well as guidance counselors and librarians/media specialists. It also includes the additional public prekindergarten teachers recommended for expanded prekindergarten for three- and four-year-olds. It does not include administrators or any other expanded staffing, which may be accounted for in other elements.
3. Student enrollment estimates through 2026 from Maryland Department of Planning projections, *Public School Enrollment Projections 2017-2026* (September 2017). Estimates for 2027-2030 based on four-year average enrollment increases for the years 2023-2026.
4. Estimates of the total number of teachers beyond 2018 based on the actual average ratio of all teachers to student enrollment for the years 2014-2018.
5. Statewide average teacher salaries by years of experience and educational attainment calculated for 2018 using MSDE staffing data for all staff categorized as teacher/instructor (implied statewide salary schedule). Base salaries used for career ladder projections are 2018 salaries inflated to 2020 using inflation factor provided by the Department of Legislative Services.
6. Statewide costs of baseline and opt-out teacher salaries are estimated by progressing teachers across the implied statewide salary schedule. The model assumes an annual teacher turnover rate of 7.0%. The implied salary schedule is based on averaged actual staffing data provided by MSDE. The annual number of teachers earning advanced credits and degrees is also based on averaged actual staffing data provided by MSDE.
7. Local teacher retirement rates use State-provided projections through 2030. (State retirement costs will increase by an amount to be determined by the State's actuary.) Nonretirement fringe benefits are estimated to be 11% of salary for all years through 2030 plus \$11,939 for health insurance.
8. The rate at which teachers attempt to complete NBPTS certification, which includes a total of four modules that must be completed and a minimum or combined passing score on the modules must be achieved to receive NBC, is based on data on the distribution of the number of modules purchased by individual teachers in a year provided by the NBPTS.
9. NBC passing rates are assumed to be 50% through 2019 (the current State passing rate), 45% in 2020, 40% in 2021, 45% in 2022, 50% in 2023, 55% in 2024, 60% in 2025, 65% in 2026, 69% in 2027, 73% in 2028, and 75% in 2029 and 2030.
10. The rate at which teachers opt into the NBPTS track starts at 25% in 2021 for all teachers except those with more than 30 years of experience (which is held constant at 1% for all years), increasing to 30% in 2022, 40% in 2023, 45% in 2024, 50% in 2025, 55% in 2026, 65% in 2027, 70% in 2028, and 75%

in 2029 and 2030. It is assumed that 100% of new teachers are required to opt in beginning in 2026.

11. Teachers with 20 or more years of experience who pursue NBPTS certification must complete it within five years of the legislation's enactment.
12. Assumes a maximum of 360 Master Principal full-time equivalents. The number of Master Principals is phased in between 2023 and 2026. Master Principals earn extra pay of \$15,000 annually.

Element 2h. Train the State Superintendent and the 24 local superintendents; their senior, instruction-related staff; State and local board of education members; and school principals: Based on national programs that train school leaders, one-time costs to train existing staff total \$12.9 million spread over five years. Ongoing costs to train new staff are assumed to be \$200,000 annually.

Element 2i. Change the way schools are organized and managed to increase the amount of time available for teachers to tutor students who need intensive help and work together in teams and train teachers in the effective use of the additional collaborative time:

1. Teachers' instructional time is reduced to provide additional time for collaboration beginning in 2021. Classroom teachers' instructional time is reduced by 25% (from 80% to 60% instructional time of the contract day) excluding certain teaching positions, including those without regular classroom responsibilities.
2. Instructional time for teacher leaders is also reduced to the following levels: Lead Teachers – 50%, Master Teachers – 40%, and Professor Master Teachers – 20%.
3. These reductions in instructional time will require an additional 14,685 teachers by 2030 to continue providing the same number of classes (not including prekindergarten).

One-time costs to implement teacher training total \$3 million over three years, with ongoing costs of \$2 million annually.

Exhibit 4.7 provides the annual total cost (State and local) to implement Policy Area 2 elements totaling \$172.8 million in fiscal 2020 and increasing to \$2.8 billion in fiscal 2030. The costs in the exhibit represent the cost of this policy area in isolation from other policy areas. See Chapter 5 for an explanation of deductions of costs that overlapped with costs already identified in another policy area as well as cost savings. In particular, substantial teacher salary costs contained in Policy Area 2 overlap with Policy Areas 1 and 4.

Exhibit 4.7: Total Estimated Additional Cost

Policy Area 2 – High Quality & Diverse Teachers & Leaders – Total New Costs (in \$ millions)

Year		FY 20 0	FY 21 1	FY 22 2	FY 23 3	FY 24 4	FY 25 5	FY 26 6	FY 27 7	FY 28 8	FY 29 9	FY 30 10
2a	teacher preparation	2.5	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
2b	raising standards for teachers	MSDE infrastructure										
2c	teaching scholarships/loans	0.0	0.0	2.0	6.0	10.0	16.0	16.0	16.0	16.0	16.0	16.0
2d	foundation matching grants	indeterminate/minimal										
2e	public relations campaign	existing resources										
2f&g	raise teacher salaries/career ladder	152.0	285.6	546.6	756.6	860.3	943.5	1,007.3	1,118.6	1,212.4	1,306.7	1,482.1
	additional pre-K teachers	9.6	15.1	20.6	22.6	98.6	114.7	131.2	155.2	176.9	198.6	233.7
	principals career ladder	0.0	1.0	1.4	1.7	2.3	3.4	6.8	6.8	6.8	6.8	6.8
	NBTPS Fees	0.4	0.5	2.6	3.0	4.4	4.7	4.7	4.8	5.5	4.9	4.9
2h	training-leaders	1.5	5.2	2.1	2.1	2.1	0.2	0.2	0.2	0.2	0.2	0.2
2i	additional teacher time	0.0	76.7	127.3	183.1	325.4	464.1	601.4	719.3	861.0	969.0	999.4
	training – teachers	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	retirement (local share)	5.9	13.6	25.0	33.9	39.4	45.7	51.2	57.2	63.3	68.0	72.7
Total		\$172.8	\$401.1	\$731.0	\$1,013.6	\$1,347.0	\$1,594.3	\$1,820.9	\$2,080.1	\$2,344.2	\$2,572.2	\$2,817.9

Note: Costs reflect total costs, which may include State and local funds.

Policy Area 3

College and Career Readiness Pathways (Including Career and Technical Education)

This policy area centers around developing a world-class instructional system that will enable Maryland high school graduates to match students in the highest achieving countries in the world in academic attainments, equip them with the complex skills they will need to be successful in a technologically sophisticated economy, contribute to their communities, and play their roles as informed and thoughtful citizens in the world's oldest democracy.

In the United States today, these goals cannot be fulfilled for most adults without at least some postsecondary education, often at the community college level. In that sense, the ability to succeed in the first year of a regular, credit-bearing community college program is the keyhole through which the vast majority of high school graduates will have to pass to achieve their dreams and to make the contributions of which they are capable to their family, their employer, their community, their state, and their nation.

Toward that ambitious but critical end, the State of Maryland will establish a standard of literacy in English and mathematics (and when practicable also science) at the level needed to assure a high probability of success in the first-year programs of the State's community colleges and other open-enrollment postsecondary institutions. This will be called the College and Career Readiness or CCR standard. The Commission believes that its recommendations, if fully implemented, will yield a preK-12 education for Maryland that succeeds, approximately 10 years after serious implementation starts, in getting nearly 80% of the high school cohort to CCR – 65% by the end of grade 10, 75% by the time they are 18, and several percent more before they graduate from high school.

Since a standard of this sort is met by fewer than half of Maryland's students today, the Commission's plan envisions massive improvement in performance, and this will open opportunities to most of our young people that are far out of reach now. It will also provide an enormous boost in the capacity of the Maryland workforce to compete effectively in the State, national, and global economies. If the State continues to implement the Commission's recommendations with fidelity and determination, the Commission believes that, once a cohort of three- and four-year-old children experience the full education system recommended by the Commission and reach high school age, all but the most severely disabled will meet the CCR standard by the time they leave high school.

One might wish that all students could immediately achieve CCR by the end of tenth grade. But it is very important to recognize that today, in Maryland, fewer than half the cohort leaves high school having attained a comparable standard. Data from the

U.S. Department of Education consistently show that Maryland's African American and Hispanic students in particular lack access to, and are underrepresented in, high-quality preschool programs, eighth grade Algebra I classes, and advanced high school math and science classes that would help them achieve the CCR standard. Maryland will not succeed in reaching its goals without a deliberate focus on eliminating these inequalities. More than doubling the proportion of students who achieve the CCR standard within 10 years would be a remarkable achievement and would likely mean narrowing both the opportunity and achievement gaps that currently exist. Sustaining such gains over the following 10 years so that those not able to meet the standard will shrink to a small number of young people with significant disabling conditions would be another remarkable – yet feasible – achievement.

These estimates are deliberately conservative. The targets set forth above are goals that other countries have both met and gone on to exceed. It is entirely possible that Maryland will be able to match, perhaps even surpass them. Typically, reports and legislation of this kind are unrealistic and set lofty goals that have never proven achievable at scale in any U.S. state. (Consider, for example, the “universal proficiency by 2014” goal of No Child Left Behind.) Once everyone concludes that no such thing will actually happen, the entire report's credibility is compromised and many do not even try very hard to carry it out. The Commission does not want its report to fall into this trap of overreaching and thereby dooming its recommendations. To repeat, the goals we have set are credible because entire nations have achieved them – and Massachusetts has approached them.

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It is important to recognize that one's educational achievement depends on more than schooling. Indeed, study after study shows that other factors – in particular, the education and socioeconomic circumstances of a student's parents – greatly outweigh the influence of the school on educational achievement. Closing the gap entirely between what students can achieve and what they actually achieve will, realistically, involve making changes in the environment in which many students grow up, changes that are beyond the reach of the schools. The Commission's goals and recommendations, in total, take this reality into account.

It is also important to bear in mind that many who do not achieve CCR by the end of high school will still be able to receive high school diplomas. In the new system, students will get a diploma by passing high school courses and assessments required for graduation by the State Board of Education. Except for students with severe special needs, there will be no alternative to these requirements.

Many decent jobs in the Maryland economy that enable a person to support a family above the poverty level are available to those who can show that they have the grit, determination, self-discipline, basic literacy, numeracy, and overall work ethic needed to do those jobs. The measures described below will not only greatly increase the proportion of students who leave high school college and career ready, they will also greatly increase the proportion who do not drop out and who go on to earn a high school diploma that employers will value.

The creation of an “early warning system” based on formative evaluations is critical to enable teachers to identify students who are beginning to fall behind and have teachers work together to get such students back on track. This process should be done in all grades but will be particularly important for students who do not meet the CCR standard by the end of tenth grade. They will need additional interventions in eleventh and twelfth grade, building on the State’s current transition course model. Any student who meets the standard before twelfth grade will have opportunities to participate in the post-CCR pathways described below. But those who do not meet the CCR standard even by twelfth grade will still have opportunities to participate in career counseling and hands-on career exploration.

The immediate benefit for those who meet the CCR standard is access to a set of ambitious and rewarding post-CCR pathway programs. These include (1) programs that enable students to earn one of the following: the International Baccalaureate Diploma, the Cambridge Advanced International Certificate of Education (AICE) Diploma, or completion of a comparable program consisting of a series of Advanced Placement courses specified by the College Board; (2) a program that enables students (at no cost to them or their parents) to earn an associate’s degree to be awarded along with or subsequent to graduation from high school, or to commence work towards a baccalaureate degree with the possibility of transferring to a Maryland four-year college; and (3) access to robust career and technical education (CTE) programs offered by Maryland high schools, two- and four-year colleges, and training providers that allow students to explore and prepare for various career options and, via apprenticeships wherever feasible, to acquire technical credentials with significant value in the labor market.

We encourage most students who attain CCR to choose one of the three options described above and energetically pursue the additional endorsement that comes with its successful completion. Others will embark upon a fourth pathway that involves components of some or all of the three pathways: for instance, AP courses, International Baccalaureate (IB) courses, Cambridge AICE courses (Cambridge), and community college courses (academic and/or CTE). This fourth pathway may consist in large part of advanced academics with one or two CTE certificates added, or it may be a strong CTE program that keeps other college options open. Students in this fourth pathway may not achieve an associate’s degree, industry certification, or other advanced CTE credential, but they will obtain some college credit for advanced courses taken (*e.g.*, AP courses or dual-enrollment classes at a postsecondary institution) or some CTE certificates for courses completed and/or successful work experience. Elective courses, extra-curricular activities, and other programs, services, and academic opportunities typically offered by Maryland high schools will remain available to students no matter which post-CCR pathway they select.

Element 3a: Develop a fully aligned instructional system, including curriculum frameworks, course syllabi and assessments, together with clear examples of standard-setting work and formative assessments to ensure that students stay on track.

Design Assumptions:

1. Standards, or curriculum frameworks with embedded standards, in core subjects (English language arts, mathematics, sciences, history/social studies, music and fine arts) that are sensitive to cultural diversity and that map out the core learning goals of each subject at each grade level, laying these out in a logical sequence reflecting the content that students should previously have acquired as well as solid developmental science on how students absorb new skills, knowledge, and ways of thinking.
2. Curriculum resources for each subject at each grade level, built on the aforementioned frameworks and standards. These should include, for each subject or subject cluster:
 - a. State-developed course syllabi for each course at each grade level, with sample lessons for teachers to use as models.
 - b. State-approved model curriculum units for all subjects and grade levels, aligned with the curriculum frameworks. These units may be gathered from courses and units developed by teachers and others in and beyond Maryland, and will be reviewed and approved for quality by the Maryland State Department of Education (MSDE) and the State Board of Education. MSDE will use accepted benchmarks such as approval by EdReports or Tier 1 and Tier 2 evidence-based standards established by the federal Every Student Succeeds Act. Curricula approved by MSDE must be designed as complete courses, which, when properly implemented and taken in sequence, will enable students to meet the CCR standard by the end of grade 10.
 - c. Examples of student work in each grade that meet the standards for each required subject and commentaries explaining why the work meets the standards so that teachers and students know exactly what is required.
3. Schools identified as low performing by their scores on statewide assessments will:
 - a. be visited by expert review teams that are assembled and work under the supervision of MSDE; based on what they find, and consistent with Maryland's Every Student Succeeds Act (ESSA) plan for dealing with such schools, those teams will recommend courses of action for addressing the problems revealed by the review. (See further discussion in Element 5b.)
 - b. In situations where curriculum issues are among the problems, the review teams' recommendations may include requiring a school to use the State-developed syllabi and curriculum units until such time as its students are on track to meet the CCR standards by the end of tenth grade. In such cases, the review team will also recommend appropriate forms of training and technical assistance for the designated schools,

including possibly pairing them with schools that more successfully serve similar students.

- c. Other schools (*i.e.*, those not low performing) will be encouraged but not obligated to use the State-approved curricular frameworks and units.
4. In the core subjects of English, math, science, and history/social studies, an assessment system designed to assess students' acquisition of the qualities specified in the curriculum standards and frameworks must include:
- a. summative assessments that meet federal requirements;
 - b. assessments (which may be State and/or local) that provide means by which to determine whether students have met the State CCR standard and "early warnings" by which teachers and school leaders can identify those who are beginning to fall behind, which will enable them to work together more successfully to diagnose the issues and help get those students back on track to meet the CCR standard (See Element 2 recommendations on use of the school day and teachers' time); and
 - c. evidence of meeting high school graduation requirements.

Implementation Decisions:

1. The work should start with an inventory of the current instructional system and then build on curriculum review processes already in place at MSDE (notably, the Maryland District Curricular Support Materials Collaborative) to develop curriculum frameworks and lesson "seeds," which are lesson outlines for teachers to expand, although much work will be needed to accomplish this goal.
2. Designing this system will be a multi-year effort that will involve the development and piloting of each component by teachers and incorporating their feedback.
3. The system will require an online platform to house this set of tools.
4. The strongest teachers in each content area and grade level should play key roles in this work, which could tie into the teacher career lattice framework discussed in Element 2g.

The strongest teachers in each content area and grade level should play key roles in this work.

Element 3b: Establish and implement a CCR standard set to global standards.

This standard will certify that students have the requisite literacy in English and mathematics (and when practicable science) needed to succeed in first-year, credit-bearing courses in open-enrollment postsecondary institutions in the State. This standard must be periodically reviewed to ensure that it remains internationally competitive.

Design Assumptions:

1. Setting the standard:
 - a. At the outset, the CCR standard will be a score of 4 or higher on the Partnership for the Assessment of Readiness for College and Career (PARCC) Algebra 1 and English 10 exams.
 - b. When Maryland moves from PARCC to the Maryland Comprehensive Assessment Program (MCAP), the State should base its CCR standard on the National Center on Education and the Economy's (NCEE) empirical study of community college curriculum, which can be found here: <http://ncee.org/college-and-work-ready/>.
 - c. The State should subsequently conduct the research needed to establish whether the CCR literacy and numeracy standards set by the NCEE study are comparable to the global standard in top-performing countries for the same-age cohort as in Maryland and whether they also align with the workforce needs of Maryland. This entails doing an equating study in which a sample of Maryland students take the assessments of top-performing jurisdictions as well as Maryland assessments and comparing the results. It also requires continuing coordination (as described in the section below on Career & Technical Education) with Maryland employers and with the bodies charged with economic and workforce development.
 - d. The State should put in place a process for reviewing the CCR standard periodically to ensure that it continues to align with the academic demands of first-year courses of open-enrollment institutions as well as with global standards and the State's workforce needs.
 - e. At such time as it is practicable to include science in the CCR standards, the State should follow similar procedures with respect to standards and assessments.
2. Assessments
 - a. The State will use PARCC until the State's new tests, MCAP, are fully implemented (estimated to be in the 2020-21 school year).

MSDE should develop a communication strategy to explain the new CCR standard to parents, students, educators, and the wider public.

- b. Those designing MCAP should incorporate the findings from NCEE's empirical study of community college curriculum in order to ensure that students have the opportunity to meet the desired CCR standard by grade 10.
 - c. Middle school students and ninth grade students should be able to take the CCR mathematics and English literacy tests at the end of any year they wish and, if they reach the CCR standard, should be eligible to pursue the post-CCR options at any point thereafter.
 - d. Districts should develop accelerated pathways and enrichment programs to support elementary and middle school students who are gifted and talented and others performing above grade level in English and math to enable them to achieve the CCR standard before tenth grade and to pursue the post-CCR options immediately. Special efforts should be made to provide these accelerated pathways in schools with high concentrations of at-risk students, who may not have historically had access to those opportunities. Districts should engage in universal screening in the early grades to identify students for this purpose.
- 3. Once the empirical study has been conducted to establish the mathematics and English literacy standard for the CCR endorsement, Maryland community colleges and other open-enrollment postsecondary institutions should be required by law to enroll – in credit-bearing courses leading to certificates and degrees – students who have met that standard.
 - 4. MSDE should develop a communication strategy to explain the new CCR standard, the new State assessment system, and the implications for college entry and career readiness to parents, students, educators, and the wider public.

Element 3c: Provide Transitional Supplemental Instruction (TSI), including tutoring, for all K-third grade students identified as struggling learners until the new system proposed by the Commission is in place.

As a guiding principle, all students who are below proficiency in the foundational skills of literacy and math should receive additional support using a wide variety of evidence-based programs and strategies. The Commission's Preliminary Report – and the paragraphs above – call for creating an early warning system as soon as possible based on formative evaluations, including school readiness and other assessments, that enable teachers to identify students who are beginning to fall behind so that teachers will be able to work together to get students back on track. This process should be done in all grades. The Commission's Preliminary Report – and this report – also recommends reorganizing schools so that teachers trained to diagnose and address students' learning needs will work collaboratively to monitor students and intervene when they are struggling. Teachers will meet regularly to compare notes on student progress, decide on any needed interventions or additional supports – academic or

referral to services – and assign a single teacher to take responsibility for following the student until he or she is back on track.

As it will take time to put the new system proposed by the Commission in place, it is necessary to develop a transitional program to address the needs of struggling learners in grades K-3 while the systemic approach is being implemented for all students. This transitional program will provide additional academic support through supplemental instruction, using evidence-based programs and strategies in reading. All such strategies should meet the expectations of “strong” or “moderate” evidence as defined in the federal Every Student Succeeds Act and may include tutoring as well as other evidence-based supplements. These are intended to bring them up to proficiency in reading by third grade. Funding will be provided for a lead teacher in each school who will be in charge of this transitional program. The design of the program will be up to the school so that it can determine how best to address the unique needs of its pupils and to take advantage of local resources. MSDE will be responsible for developing a statewide professional development program for the lead teachers.

Design Assumptions:

1. Many components of the Commission’s reform program are intended to provide a deep web of systemic support for students who now achieve far less than they could and should in school. Although many elements of this program will yield results early, it will take years before the new system is fully in place and produces the kind of transformative results envisioned. When that happens, the Commission expects the State to see a dramatic reduction in the proportion of its students assigned to special education because of a dramatic improvement in the performance of many who would now be assigned to special education.
2. The priority for the TSI program should be literacy in grades K-3 since literacy is the gateway to academic success. Reading is the key to achievement, in school and out. Students who cannot read will not be good at mathematics, science, history, or automotive repair and maintenance. Those who cannot decode text and comprehend what they have decoded by the end of grade three will find it extremely difficult to learn to read at grade level by the time they graduate high school. Funds provided through the TSI program may also be used to support supplemental math instruction if a local school system determines that this is a priority need of their students. Other available funds may also support math interventions.
3. Supplemental instruction may include (but is not limited to) one-on-one tutoring using certified teachers; tutoring in small groups by a certified teacher, teaching assistant, or other trained individual; and cross-age peer tutoring. The Commission encourages school and district experimentation and piloting to determine the most promising means of screening, identifying, and addressing literacy deficits. Because students in K-2 do not take the PARCC exam, grade

Reading is the key to achievement, in school and out.

3 PARCC levels will be used as a proxy for estimating resources needed to serve all K-3 students needing additional reading support.

4. As the new system is implemented, school leaders and teachers should be trained in new approaches to supporting students. This will involve three strands of training: (1) for school leaders on the system of supports; (2) for veteran teachers already working in schools; and (3) for new teachers going through preparatory programs.
5. Students who continue to need additional support after the transitional program is phased out will be tutored by their regular teachers, and resources for at-promise students and the formula funds for disadvantaged students will provide funding for additional supports and services.
6. The Commission recommends that the State fund the TSI program based on an estimate of the cost of providing each school with a certified teacher who would be responsible for coordinating it, as well as funds for tutors initially based on a ratio of 1 for every 80 students. The cost of the tutors will be estimated based on a blended tutoring model, *i.e.*, one that includes a range of models in levels 1 and 2 of the ESSA-proven programs, from cross-age peer tutoring models to highly structured models using fully certified teachers.

Implementation Decisions:

1. House Bill 1415 of 2018, which authorizes funding for evidence-based early literacy intervention in grades K-8 with a priority for K-third graders in a school with a high concentration of students living in poverty, has been enacted, so implementation of reading tutors will likely begin this year. The bill mandates \$2.5 million in each of fiscal 2019 through 2022 for the program. Additional funding will be needed to fully fund the TSI program.
2. Because tutors are considered a transitional program, needed until teachers have time and capacity to provide this support themselves, TSI funding will phase down in fiscal 2023 and 2024 with no additional funding required beginning in fiscal 2025.

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 tenth grade that gives them extra time and more supports to help them meet that standard as soon as possible. Such approaches may include allowing students to progress at their own pace, individualized instruction tailored to students' different learning styles, and targeted supports that address barriers to academic success.

Design Assumptions:

1. Given the availability of supplemental instruction in the early grades, the number of students who are not on track to meet the CCR standard when they reach middle and high school will gradually decrease.

Students in middle and high school who are not progressing to meet the CCR standard by the end of tenth grade do not need “more of the same.”

2. Students in middle and high school who are not progressing to meet the CCR standard by the end of tenth grade do not need “more of the same.” Instead, they require alternative approaches that are tailored to their specific circumstances and needs. Differentiation may include culturally responsive lessons, adjustments in pedagogy (especially project- and problem-based applied learning), and varied instructional timing.
3. Such alternative approaches will work towards the *same standards*, but spend *more time* (and supply more varied support on the content) in order to assure student success.
4. Teachers will recommend students for this option, informed by standardized assessments, formative assessments, and their experience in the elementary and middle school curricula. Parents can appeal this recommendation and request that students not be placed in an “extended” curriculum so long as they make adequate progress toward the CCR standard in the standard curriculum.
5. If any student placed in the extended curriculum makes more progress than expected, he or she should be transferred into the standard stream of classes.
6. Students can be placed in the extended/differentiated option for specific subjects, not necessarily the entire curriculum. (As CCR is based on the Early Learning Assessment and math, those are the subjects where such differentiated options are most needed.)

Element 3e: Require all local school systems to provide all students who meet the CCR standard with access to a set of post-CCR program pathways that includes (1) the International Baccalaureate Diploma program, the Cambridge AICE Diploma program, or a comparable program consisting of Advanced Placement courses specified by the College Board; (2) a program that enables students (at no cost to them or their parents) to earn an associate’s degree to be awarded along with or subsequent to graduation from high school, or to commence work towards a baccalaureate degree with the possibility of transfer to a Maryland four-year college; and (3) access to robust CTE programs offered by Maryland high schools, two-year and four-year institutions, and training providers that allow students to explore various career options and (via apprenticeships wherever feasible) to acquire technical credentials with significant value in the labor market. Electives, extra-curricular activities, and the full range of courses and services typically offered by Maryland high schools will remain available to students no matter which post-CCR pathway they select.

Design Assumptions:

1. Local school systems will ensure that all high schools that offer at least one of the selective college preparatory programs will be certified by the organization that provides and scores their examinations, and will train staff to deliver the curriculum.

Schools will be encouraged to introduce students to career and advanced academic options early, beginning in elementary school.

2. All students, especially at-promise students, will have access to appropriate supports, including TSI and alternative educational approaches described in Elements 3c and 3d above, that enable them to achieve the CCR standard and access any of the post-CCR pathways.
3. Local school systems will partner with Maryland colleges, community colleges, and out-of-state institutions approved by the Maryland Higher Education Commission (MHEC) to offer programs leading to associate's degrees or coursework pointed toward four-year degrees. Students can take college credit courses at their high school or at a postsecondary institution, depending on specific agreements between districts and those institutions. There is also the option of using technology (online or distance learning) to assist with delivery of courses in whole or in part to increase student access. Some courses may count for both high school and college credit under dual-enrollment agreements.
4. Schools will be encouraged to introduce students to career and advanced academic options early, beginning in elementary school. During the initial implementation period, this can include giving students the opportunity to take introductory CTE coursework before meeting the CCR standard in order to engage their interest and retain them in high school. It may also include selected AP, IB, or Cambridge courses. When the State has determined, either legislatively or by the independent oversight board, that the Commission's recommendations are fully implemented, continuation into CTE courses required as part of sequences leading directly to approved occupational credentials will be available only to students meeting the CCR standard. There will be a limited number of special circumstances where the industry sponsors of CTE programs require students to start coursework earlier than tenth grade. Similarly, at that time, students who plan to pursue any of the other post-CCR pathways will not be able to begin those programs until they have met the CCR standard.

Implementation Decisions:

1. By the third year of implementation, all local school systems must offer all of their students access to the post-CCR pathways specified above.
2. All middle and high school students should have access to high-quality counseling services that expose them to all postsecondary pathways and help them develop an appropriate program of study to complete their desired pathway.
3. It is the Commission's intent that there should be statewide uniformity in the way postsecondary courses taken during high school, and regular high school courses, are paid for. This includes, but is not limited to, associate's degree programs, certificate programs, and dual-enrollment programs. All such programs should be offered to high school students who have attained CCR at

no cost to the student or the student's parents and without regard to ability to pay. Because many students may be expected to take such programs and courses, the State cannot be expected to pay both the high school and the postsecondary institution for the same instruction, as is sometimes currently the case. A determination must be made as to whether the funds appropriated for this purpose flow to the school district or the postsecondary institution or some combination of these institutions. In addition to tuition, this decision will need to take into account any applicable fees and necessary textbooks.

4. Postsecondary courses and programs offered as part of the high school program may continue to be offered on the postsecondary institution campus or the high school campus, but preference should be given to the latter so as to minimize the need for student travel, accommodate students' desires to participate in sports and other extracurricular activities in their high school, and in recognition of parents' concerns about children who may not yet be ready for the social environment of college.
5. Legislation should require Maryland school boards to give high school graduation credit for college-level courses taught by postsecondary instructional staff if those courses are integral to the post-CCR program options described in this report.
6. Maryland may need to provide start-up funds for AP, IB, and Cambridge programs in situations where these programs are not already available.

Element 3f: The State Board of Education will **revise high school graduation requirements** so that students who achieve CCR will be able to enter any of the post-CCR pathways and still earn a high school diploma. This includes retaining the expectation that students will satisfactorily complete four years of English and math, which is the admission standard for the University System of Maryland. All courses required for graduation, including those in history, science, and social studies, should be organized such that students can, by the end of their senior year, satisfy both the requirement for post-CCR pathways described in Element 3e and the State high school diploma requirements. Students who participate in one of the post-CCR pathways may take as many of the other courses offered by their high school as their schedules will allow and may participate in high school extracurricular activities.

Design Assumptions:

1. Any high school graduation requirements in mathematics or English that go beyond the CCR requirements and that have not been met by the time a student achieves CCR will need to be made available by the providers of the pathway on which the student progresses. Requirements not yet met in other subjects will have to be provided by the high school at times worked out in collaboration with the pathway provider.
2. Students who complete all course requirements will still earn a Maryland high school diploma upon graduation. Award of the high school diploma will

require successful completion of these courses and any tests associated with required courses or otherwise required by the State Board of Education.

3. The State Board of Education is considering whether to create diploma “endorsements” that acknowledge students with attainments that go beyond the course-completion requirements, which could include endorsements for meeting the CCR standard and post-CCR pathway completions such as getting an AP, IB, or Cambridge diploma; getting an associate’s degree; and/or earning an industry-recognized credential or completing a youth or other apprenticeship program.
4. While students pursue any of the post-CCR pathways, they will remain enrolled at least part time in their high school and the high school remains responsible for them until their diplomas are awarded; this includes the range of services that a student may need, such as academic, career, and personal advising.
5. College courses meeting high school graduation requirements and approved by MSDE must also count for high school credit.

Element 3g: Develop eleventh and twelfth grade programs for students who do not meet the CCR standard by the end of tenth grade. At the outset, this will probably include many young people but their number will diminish over time, as the many Commission recommendations take effect that are designed to improve the performance of students at every stage of their education. Yet there will always be some students who do not meet the CCR standard by the end of grade 10 and who may benefit from programs designed to provide the content and develop the skills that they need to reach the CCR standard by the end of twelfth grade.

Design Assumptions:

1. The State and school districts must develop a set of programs and curriculum options specially designed to support and advance students who have not achieved CCR by the end of grade 10. The goal is to equip them to achieve CCR by the end of grade 12. Though aimed at the same standard, these options will be much more applied, experiential, and “hands on,” including curriculum focused on the arts. They should yield courses and curricula that are project- and problem-based and highly engaging. (Consultants from countries that have built highly engaging curriculum of this sort may be engaged to help develop this curriculum.) Students will not be required to retake the courses in which they have not succeeded. It will in that sense not be a remedial curriculum at all. It may be occupationally focused. Many of these courses will be similar to – maybe even the same as – introductory Career and Technical Education courses, but enhanced to provide more opportunities for learning the necessary literacy and numeracy skills, enabling these students both to meet the CCR requirements and to make some progress toward

These options will be much more applied, experiential, and “hands on,” including curriculum focused on the arts.

meeting the requirements for progressing toward a CTE credential. Though helping students to achieve CCR will be a high priority, students will not be focused exclusively on English literacy and mathematics but will have a well-rounded curriculum designed to achieve the CCR endorsement, meet the State board's requirements for a high school diploma, and enable them to take electives that interest them.

2. For students who are close to meeting the CCR standard in tenth grade, the necessary instruction could be provided in the following summer to allow the student to participate in one of the post-CCR pathways beginning in eleventh grade. Such programs must also enable students to satisfy all high school graduation requirements by the end of twelfth grade.
3. Any student who has not achieved CCR by the end of tenth grade will be assigned a teacher who acts as a case manager for that student, with overall responsibility for the success of that student, supported by all the other teachers of that student, assembled as a team under the leadership of the cognizant teacher to monitor that student's progress and do whatever is needed to get and keep that student on track, including visits to the student's parents or guardian and collaboration with public and private agencies providing various forms of support to that student and his or her family. Students who are struggling in schools benefit greatly from individual attention from their teachers and other adults. The Commission's proposals include giving teachers much more time to work with individual students and small groups of students, which will enable their regular full-time teachers to provide extensive one-on-one and small-group tutoring and other forms of assistance to students that is closely tailored to their individual needs.
4. Students who have not achieved CCR by the end of grade 10 will be given priority access to a greatly enhanced career counseling system designed in part to make the connection between the hopes they have for themselves and what they need to achieve in school in order to achieve those hopes. The Commission is proposing to develop a statewide system of career counseling and opportunities for job shadowing and internships that could dramatically increase young people's knowledge about work and jobs and the skills needed to get those jobs and give them solid opportunities to get a first-hand feel for what is out there and what it will really take to realize their dreams. In particular, these students will be provided access to organizations that provide volunteer mentors to young people, especially struggling learners, to help them over the humps and placing them on track for success.

Career and Technical Education:

We envision a world-class career and technical education system for Maryland

Maryland can lay claim to having one of the better versions of career and technical education in the United States. It has dedicated leaders and instructors and one can

find high schools and community colleges that provide engaging programs and lead to rewarding careers.

But the number of students who leave our State's schools with a credential – the kind of credential that employers value enough to pay higher wages to young people who have it – are far too small. In Maryland, as in much of the United States, despite the best efforts of dedicated educators and employers who want to help, career and technical education is widely viewed as the place students go who are struggling academically. Such programs are often viewed as successful if they keep students who might otherwise drop out of school. As a result, too many of today's high school students leave without either a solid work credential to launch them on a career or the academic standing to have a decent chance of going to college and succeeding there.

That is unacceptable. Maryland's economy cannot long remain competitive if half of its workforce is uncompetitive in a labor market that is suffering from surpluses of people with low skills and severe shortages of people with high skills. That is the situation today in our State – as in most other states.

The future of our economy, and of many of our citizens, depends on a massive upgrading of the skills of the workforce.

The future of our economy, and of many of our citizens, depends on a massive upgrading of the skills of the workforce, not so much among those who earn professional degrees in a university as among everyone else, from cosmetologists to medical technicians using advanced medical technology, specialty welders to farmers programming driverless tractors, from people who build and maintain factory automation systems employing advanced robotics technologies to automotive repair and maintenance technicians who are now dealing with computers on wheels.

No economy can long survive employing only university-educated professionals. We envision a Maryland economy in which, by 2030, close to half our students are in apprentice and apprentice-like programs that involve much work-based learning supported by classwork tied to what is being learned in the workplace. Students will constantly apply in the workplace what they are learning in class, using state-of-the-art equipment under the supervision of expert practitioners. These programs will lead to occupational credentials that are gateways to rewarding careers that do not necessarily require professional degrees. Because the standards for these credentials will be defined by employers, students will know that, at the end of their program, there is a good job leading to a rewarding career. Some of these credentials will qualify students to take the first step into a good career right out of high school, while others will choose careers in which the first job comes after a round of postsecondary education. These programs will include registered apprenticeships as well as many other opportunities for advanced technical training.

The distinction will be much clearer than now between what students have to do to make the transition between programs that offer beginning skills in high-skill fields and programs that offer more advanced skills in those (and other) fields. For many careers, students will be able to start that progression earlier and complete it faster and at much less expense to them and their families than they can now.

There will be no dead ends.

There will be no dead ends. Students will have much better opportunities, beginning in elementary and middle school, to learn about the varieties of work that adults do and to explore careers that might interest them. Once they have chosen a path to follow, students will be able to start out getting enough knowledge to begin at the bottom of the ladder, go to work, and then go back to get a more advanced credential if they wish. They will be able to go down one path and then shift to another without returning to square one. They will be able to start out in a CTE direction and then shift to a university path – or start on a university-bound path and pick up a CTE credential too. There will be smooth transitions among high school CTE programs, community college programs, post-high school apprenticeship programs, and university-based technical programs. Far from being a refuge for the academically challenged, the CTE route will be chosen by many academically strong students who prefer a hands-on approach to their education and can see that CTE is as good a route to the board room or corner office as the university.

To produce those outcomes for almost half of Maryland's young people will require a *whole system* that is carefully designed for this purpose. Our purpose here is to describe the essential elements of such a system. Its crucial foundation is the Commission's bold proposal to get Maryland students to a solid college- and career-ready standard by the end of grade 10 (or earlier, or later). At that point, many will be able to pursue credentials that employers will be willing to pay for. When that system is in place, no one will be able to say that CTE is for weak students. It is where you go for compelling, absorbing, and exciting education and training that leads to limitless possibilities. It is where you go to master complex technical skills in an economy that provides rich rewards for people with such skills but also where you go for an education broad and deep enough to enable you to turn your career around on a dime, as well as an education for citizenship.

This is no dream. There are countries that are doing exactly this right now. There is no reason why Maryland cannot do it too. Fortunately, there is much to build on. Officials at MSDE; the Governor's Workforce Development Board (GWDB); the Department of Labor, Licensing, and Regulation (DLLR); the Department of Commerce (Commerce); the Maryland Higher Education Commission; the community colleges; the Maryland Economic Development Commission; the P-20 Council; and many local leaders, employers, trade unions, and professional educators have all been working on pieces of this problem. The highlights of our proposed plan follow.

The Commission recommends designating GWDB as "home" for direction and governance of the proposed new CTE system for Maryland. The GWDB is a business-led board of 53 members that serves as the State's chief policy-making advisory body for workforce development. Federally mandated by the Workforce Innovation and Opportunity Act, GWDB works to address the challenges of Maryland's workforce needs in the 21st century. Members include the Governor, cabinet secretaries, college presidents, the State superintendent of schools, elected

officials, business people, labor organizations, and representatives of nonprofit organizations.

GWDB is already responsible for developing policies and strategies to form a variety of education, employment, and training programs. It is charged to bring together and focus various workforce development partners and stakeholders on two key outcomes – a properly prepared workforce that meets the current and future demands of Maryland employers, and opportunities for all Marylanders to succeed in the 21st century workforce. For GWDB to shoulder the additional responsibility of leading the State's new CTE system, its duties and responsibilities will need to be expanded. It will also require authority to create and/or amend regulations, review agency budget requests, issue grants, and create advisory structures. This will fundamentally alter the board from primarily an advisory role to an executive board but is consistent with the Commission's intention to create a powerful engine of change and leadership for Maryland's future CTE system.

Element 3h: A new committee of GWDB will be created, to be known as the **Career and Technical Education Committee (CTE Committee)**. It will be charged with building a world-class career and technical education system for Maryland, taking into consideration the priorities established by the Economic Development Commission. Its members – drawn from GWDB itself – will include the heads of MSDE, MHEC, DLLR, and Commerce; a representative of the community colleges, which provide much of the State's postsecondary training; the Chair of the Skills Standards Advisory Committee (see below); and will include at least four additional representatives of employers, industry associations, and labor. The Committee's members – and its chair, who should be a business representative – will be selected by the Governor, the President of the Senate, and the Speaker of the House. As future appointments are made to GWDB, consistent with applicable federal and State law, the Commission recommends including additional representatives of K-12 education (including individuals with teaching experience in public schools) and postsecondary education (including community colleges) as well as parents and community leaders, with the intention being to make it possible for such individuals also to serve on the CTE Committee.

The CTE Committee will be tasked with creating a system focused on developing the talent needed for staffing the high-tech industries on which Maryland's future depends, from health care and agriculture to cybersecurity and precision manufacturing. It will take the lead in developing the framework for the State's CTE system, mobilizing the business community to become a central player in developing opportunities for apprenticeship and work-based learning, approving CTE programs and standards, bringing the schools and colleges and universities together to align their offerings, assuring that Maryland's entire CTE system is fully aligned with the State's priorities for economic and workforce development, and benchmarking that system against the best CTE systems in the world, to make sure that Maryland's workforce is – and can remain – among the most competitive in the world.

Design Assumptions:

1. The CTE Committee chair will be selected jointly by the Governor, the President of the Senate, and the Speaker of the House. The chair of the Committee will serve on the Governor's P-20 Leadership Council, which will be tasked with paying heightened attention to the improvement and coordination of CTE throughout Maryland's education system. The CTE Committee will have the authority to issue whatever regulations are required to implement the statewide framework that it develops for CTE, allocating roles and responsibilities to agencies, mandating required offerings and resolving conflicts that arise among agencies in the course of carrying out those responsibilities. This includes, but is not limited to, deciding which institutions set qualifications for instructors and whether credit is awarded for a course or program. The Committee will issue regulations describing all approved course sequences for CTE.
2. The CTE Committee will address operational issues incident to the development of a modern work-based learning system, such as transportation to and from work-based learning venues and insurance for firms providing places for young people.
3. The CTE Committee will (in transparent, public meetings) review all agency budget requests for CTE-related programs and make recommendations to the Governor and General Assembly.
4. The CTE-related programs include middle and high school career exploration and development programs, comprehensive CTE high school programs (where every student is in a focused program of study leading to an approved credential), and postsecondary career pathway options, including college credit bearing certificate programs, two year associate's degree CTE programs, and four year technical CTE degree programs. It also includes postsecondary nondegree, noncredit options, including workforce training programs, noncredit certificate and licensure programs, registered apprenticeship training, and other programs that lead to credentials approved by the CTE Committee.
5. The CTE Committee will have a budget of its own, intended to give it the capacity to make start-up grants, invest in promising innovations and experiments, contract for needed research and analysis, and more.
6. Assisted by its staff, the CTE Committee will monitor the progress of Career and Technical Education in Maryland, including timely implementation of this Commission's recommendations, and will obtain and analyze data on the CTE system's performance and that of participating students. See also element 5C.
7. The CTE Committee may create such advisory structures as necessary to ensure essential input from educators, parents, community organizations, local

workforce boards, and other key stakeholders such as local school boards and superintendents.

8. The CTE Committee, through GWDB, will provide annual public reports to the Governor and the General Assembly on the performance of the Maryland CTE system and, in those reports, will recommend statutory, regulatory, budgetary, and structural changes based on its analysis of Maryland's needs and the performance of the evolving CTE system.

Element 3i: The CTE Committee will **create an advisory group to provide advice on skills standards** that can be used to drive the new Maryland CTE system. To be called the Skills Standards Advisory Committee, it will be comprised primarily of employers from a diverse mix of industries, leaders of industry associations, and labor groups.

Employers and labor organizations will be asked to play the key role in defining Maryland's system of occupational standards.

It will be charged with setting the standards for a greatly strengthened statewide system of work-based learning and apprenticeships that will form the backbone of the new system. Employers and labor organizations will be asked to play the key role in defining Maryland's system of occupational standards. They will also take the lead in creating a robust array of opportunities for students to earn such credentials in workplace settings provided by employers all over the State and creating a quality-assurance system to ensure that those employers supply the experiences that students need to earn the credentials they seek. Finally, they will be asked to play a key role in developing a coherent framework for occupational standards and, within that framework, organize appropriate industry groups to establish the standards and criteria by which candidates will be evaluated for credentials. When the CTE system is fully operational, all programs leading to credentials needed for rewarding mid-level skill jobs will include major work-based learning/apprenticeship components, offered either on the students' high school or community college campus, or, preferably, at the work site of a private- or public-sector employer or provider of registered and/or youth apprenticeships.

Design Assumptions:

1. The Skills Standards Advisory Committee will be comprised of senior business executives, association leaders, a representative of the Maryland Apprenticeship Training Council, and representatives of labor, all to be appointed by the Chair of the CTE Committee. Insofar as possible, the membership of the Skills Standards Advisory Committee will consist of GWDB members who are not already on the CTE Committee but it may also include others, such as educators, parents, and community representatives.
2. The Skills Standards Advisory Committee, supported by the staff of the CTE Committee, will adopt and, where appropriate, develop and regularly update a comprehensive, cohesive system of occupational skills standards to drive the Maryland CTE system, including a comprehensive array of career progressions, standards for each occupation and steps in those progressions, for the

credentials to be issued to individuals when they achieve the standards, and the criteria to be used for awarding those credentials. The Advisory Committee need not develop new standards for occupations or industries that have already developed standards (such as registered apprenticeships) that the Committee finds well-matched to Maryland's needs but should strive to build a system of standards which, when taken together, is coherent and makes it possible for students and workers to move between careers with credit given for relevant skills and knowledge they already possess.

3. Standards and other components will comprise a comprehensive, unified system of career progressions for a wide range of occupations at various skill levels that embrace grades 11 through 14 and beyond, with particular attention to the industries and occupations prioritized by the CTE Committee.
4. The Skills Standards Advisory Committee will recommend to the CTE Committee whatever regulations may be needed to determine which credentials will be approved for award by Maryland high schools and postsecondary institutions; it will set the standards and criteria by which those credentials will be awarded to individuals, based, wherever possible, on performance assessments conducted (and, where necessary, developed) by expert industry practitioners. The standards (specifying both technical skills and generic employability skills) approved by the Skills Standards Advisory Board will, wherever possible, represent not average industry practice but state-of-the-art practice, designed to keep Maryland globally competitive.
5. The Skills Standards Advisory Committee will recommend to the CTE Committee the criteria under which employers will be authorized to offer various forms of work-based learning experiences, except that the existing authority vested in the Maryland Apprenticeship and Training Council and DLLR to regulate registered apprenticeships will not change.
6. The Skills Standards Advisory Committee will be responsible for regularly updating all the skills standards components to reflect changes in technology and work organization.

Implementation Decisions:

1. The first phase of this system will focus on high-priority occupations and industries and will be in place no later than two years after passage of the enabling legislation.
2. Local workforce development boards will be expected to interpret State policies and priorities in light of local needs.

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. This can happen in several ways.

One option is a school counselor in every middle and high school whose primary focus is on those students who might be interested in pursuing some combination of CTE and further education. These counselors must be deeply knowledgeable about career options, have strong links to employers and apprenticeship providers, and understand all of the available CTE pathways.

A second option is offered by the State's American Job Centers, community colleges, public libraries, and other sources of information and counseling such as Junior Achievement. The American Job Centers were created to provide information to adults about job openings, careers, training opportunities, and financial support for further occupational training. Properly resourced, these Job Centers could also serve high school students and graduates to provide information on jobs and careers and make connections for young people to employers offering opportunities for work-based learning, youth and registered apprenticeships, internships, and job shadowing. Today, however, these centers are under-resourced for their current task and do not have the bandwidth to offer their services to school-age youth. Nor are all middle and high schools located near Job Centers.

The State should create a grant program under the CTE Committee that local school districts and/or county governments would apply for, describing their approach to providing career counseling to their middle and high school students. This program would encourage districts and counties to determine how best to deploy available funds from federal, State, and local sources for these purposes, including, for example, an additional counselor position at the high school or augmenting a local American Jobs Center, community college, or other entity to develop the capacity to serve area students. Alternatively, the district and/or county could develop innovative approaches that best meet its students' needs in other ways. Every district and/or county would have access to the dollars but would be able to frame the delivery of counseling services as they like. Schools providing direct services to their students would also be encouraged to use data from career assessment tools such as Naviance and the Armed Services Vocational Aptitude Battery. The grant funds would be sufficient for communities using nonschool services to provide for student travel between their schools and Job Centers, community colleges, etc.

Design Assumptions:

Districts and/or county governments will be responsible for ensuring that grant recipients:

1. arrange to have firms, associations, apprenticeship sponsors, and other representatives of the employer community make presentations to students in the schools at appropriate times;
2. arrange to have students (with parent permission) visit the Job Centers or community colleges for presentations, counseling, and information gathering;
3. provide counseling to individual students;
4. arrange with firms for exploratory visits from students, internships, apprenticeships, and other work-based learning opportunities; and
5. obtain and create materials and software programs for students enabling them to access a wide range of information about jobs and careers.

Element 3k: The Commission's CTE proposals contemplate a CTE system in which classroom education and training (the theory) is combined with learning in a workplace (the practice). The schooling would take place in high schools, community colleges, and other postsecondary institutions.

The Commission encourages the continued development of Comprehensive CTE high schools, of which there are many examples in the State, that provide both the theory portion of the technical training leading to credentials approved by the Skills Standards Board and the academic training needed to assure that the student leaves high school with the knowledge and skills needed to be a responsible citizen, learn quickly throughout his or her life, and develop fully as a person. The Commission recommends that funds to create more such schools, whether within individual districts or jointly operated by several districts, be given priority in future capital budgets, along with funds to enable the conversion of existing schools and CTE centers into Comprehensive CTE high schools.

Design Assumptions:

1. The workplace-learning or apprenticeship portions of the CTE learning experience will be provided outside the school in an authentic job setting wherever possible. In most cases, students in CTE programs will be expected to spend at least two days a week in workplace settings in structured workplace training leading to the relevant Skills Standards Advisory Committee-approved credential program. When that is not possible, the workplace-based or apprenticeship portion of the program will be provided by the school.
2. The CTE Committee, in partnership with DLLR and State and local workforce development boards, will be responsible for engaging employers and

developing employer-based opportunities for apprenticeship and workplace-based learning throughout the State and for issuing regulations governing the provision of workplace-based learning.

3. The CTE Committee will also be responsible for working with employers, apprenticeship sponsors, and secondary and postsecondary educators to define a system of course and program progressions that incorporate the standards developed by the Skills Standards Advisory Committee. These progressions will be used to develop course sequences that begin in high school and continue seamlessly through community college and other postsecondary occupational programs (and sometimes into the programs of four-year institutions). The sequences will be designed so that students can earn credentials at various points, get a job with that credential and then, if they wish, go on later to acquire a more advanced credential in the same sequence.
4. Students in Comprehensive CTE high schools will be able to take community college certificate programs in their high schools, so they can do college-level CTE work while remaining involved in high school courses and extracurricular activities while they earn both a high school diploma and a credential leading toward a rewarding career. These programs will include both youth and registered apprenticeship programs of the kinds already offered in Maryland.
6. The Commission recognizes that the CTE system it proposes will take years to implement fully. It envisions full implementation of the structures, programs, and policies that it is proposing – including a complete system of occupational standards and credentials, a full complement of institutions, a full set of course progressions defined, and a full set of approved courses on offer – within about 10 years of the enactment of enabling legislation. Its goal for Maryland is for 45% of high school graduates to earn CTE Committee-approved credentials, to be awarded along with the high school diploma and the CCR endorsement (in most cases along with college credits for courses taken in high school). Of that 45%, the Commission expects more than half to be in Comprehensive CTE high schools, with a greater proportion in later years.
7. The Commission is recommending (see Element 3m below) formula funding for CTE at an enhanced level to cover the cost of specialized instructors, equipment, and facilities. At the same time, the Commission places a high priority on provision of these specialized instructors, equipment, and facilities by employers at the workplace wherever possible. The CTE Committee should consider the need for additional financial incentives (*e.g.*, tax credits, direct subsidies) to encourage employers to scale youth apprenticeship opportunities in rapid fashion.

Element 3l: The entire CTE system will be informed by a close relationship between CTE providers and the State’s economic development, workforce development, and labor agencies.

While the CTE system will continue to prepare future carpenters, auto mechanics, and cosmetologists, it will also prepare young people with the complex skills needed for success in an economy permeated by artificial intelligence, robotics, neural networks, and machine learning. This will involve not just the technical skills specific to an occupation but also the generic employability skills that cut across occupations. But mastery of these skills will be just part of a student’s career and technical education. The curriculum will also emphasize ethics, the qualities needed to collaborate with others in teams but also to work independently on finding solutions for real problems, as well as the habits of mind needed to learn new things quickly and well. Not least, the CTE programs will be designed to provide the insights and skills needed to play an active role as an informed citizen, engage with our cultural world, and be a fully contributing member of society.

Element 3m: Funds from local, State, and federal sources will be used to support development and delivery of course and program progressions approved by the Committee that lead to industry credentials.

Funding formulas will need to be modified to provide more money for CTE students to pay for costlier facilities, equipment and – sometimes – required faculty. In addition, special grant programs (currently established in law as CTE Innovation Grants) will need to be expanded to make funds available to teams of schools, community colleges, apprenticeship sponsors, employers, and others, often building on good work already going on, to develop occupational standards, curriculum, and new forms of assessment that will be needed as key parts of the infrastructure of the new system. The aim, as much as possible, is to grow the new system from the bottom up, building on the points of excellence already present in Maryland, guided by the framework provided by the CTE Committee and meeting the standards established by the Skills Standards Advisory Committee.

Developing Total Cost Estimates for Elements in Policy Area 3

Policy Area 3 includes several elements that each carry a cost. The cost assumptions used to estimate the additional costs associated with implementing each of the elements are summarized below. Elements not included below either do not have additional costs associated with them, or their costs are accounted for in other Commission recommendations. Additional detail for each cost element is provided in Appendix 6.

Element 3a. Fully Aligned Instructional System: Estimates of the cost of developing (in years 1 and 2) and maintaining a fully aligned instructional system, including curriculum frameworks, course syllabi, model instructional units, and examples of student work, were developed by MSDE and reviewed by Commission staff. Funds for a new State assessment program are outside of the Commission’s recommendations.

Additional funding is projected to hire 12 school inspectors to serve on expert review teams, beginning in year 3.

Element 3b. Establish CCR Standard Set to Global Standards: Periodic funding is required to conduct empirical studies of the CCR standard to ensure that it is aligned with international standards.

Element 3c. Funding for Transitional Supplemental Instruction: The funding projection is based on a student:tutor ratio of 80:1 and tutor:coordinator ratio of 11:1. Funding is phased in beginning in fiscal 2020, with full funding provided in fiscal 2021 and 2022, and then phasing down over the next three years.

Element 3e. Post-CCR Pathways: \$1,000 is assumed to be provided to local school systems for each student who achieves the CCR standard, to develop and implement post-CCR pathways, including program fees. The estimate assumes 30% entering high school juniors are CCR in year 1 based on current achievement levels, increasing to 65% by year 10 with additional students reaching CCR before the end of high school.

Element 3g. Alternative Programs for Juniors and Seniors Who Do Not Achieve CCR: \$500 is assumed to be provided to local school systems for each high school junior or senior who has not achieved CCR, to implement alternative programs to help students achieve CCR by the end of twelfth grade. Funding levels assume 70% of eligible students in year 1, phasing down to 35% by year 10 (the inverse of estimates for students reaching CCR in Element 3e).

Elements 3h and 3i. CTE Committee and Skills Standards Advisory Committee: The funding estimate assumes five staff, including an executive director, to support both committees. CTE Innovation Grants required in current law terminate after year 4 (fiscal 2024).

Element 3j. Career Counseling: This estimate is based on the assumption that every middle and high school is assigned a full-time career counselor, although actual service delivery models may vary by school system.

Exhibit 4.8 provides the annual total cost (State and local) to implement Policy Area 3 elements totaling \$46.6 million in fiscal 2020 and increasing to \$149.7 million in fiscal 2030. The costs in the exhibit represent the cost of this policy area in isolation from other policy areas. See Chapter 5 for an explanation of deductions of costs that overlapped with costs already identified in another policy area as well as cost savings.

Exhibit 4.8: Total Estimated Additional Costs

Policy Area 3 - College & Career Readiness Pathways - Total New Costs (in \$ millions)

	Year	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
		0	1	2	3	4	5	6	7	8	9	10
Element	3a aligned system inspection teams	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3a State model curriculum		7.5	7.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	3b equating study	0.2	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	3c Transitional Supplemental Instruction	46.0	87.3	89.3	59.5	29.7	0.0	0.0	0.0	0.0	0.0	0.0
	3e post CCR Pathways	0.0	36.7	41.9	47.1	52.3	57.5	62.6	67.6	72.8	78.1	82.1
	3g non-CCR 11th & 12th grades		42.8	40.6	38.4	36.1	33.7	31.3	28.8	26.4	23.9	22.1
	3h&1 CTE Committee & Skills Board	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	3j career counseling	0.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
	3k CTE capital costs	n/a										
	3l CTE collab w/ econ/labor agencies	minimal/indeterminate										
	3m CTE innovation grants						-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
	Total	\$46.6	\$220.1	\$224.8	\$192.5	\$165.6	\$136.8	\$139.4	\$141.9	\$144.7	\$147.5	\$149.7

Note: Costs reflect total costs, which may include State and local funds.

Policy Area 4

More Resources to Ensure All Students are Successful

The education system proposed by the Commission is driven in large measure by the twin goals of elevating overall student performance to an international standard *and* eliminating opportunity and achievement

The education system proposed by the Commission is driven in large measure by the twin goals of elevating overall student performance to an international standard *and* eliminating opportunity and achievement gaps. This includes equity in the rate at which students are successful in achieving the college and career readiness (CCR) standard by the end of tenth grade and pursuing post-CCR pathways. Most emphatically, equity in student outcomes is a crucial linchpin of the Commission's recommendations. This goal is not the focus of any one policy area, it permeates all of the recommendations.

Achievement of the Commission's recommendations for an internationally benchmarked curriculum requires significantly ratcheting up the standards for all students. This will be challenging for many students at even our best schools. For low-performing schools, many of which are schools with high concentrations of students living in poverty, it will require extra resources and a determined, persistent, and comprehensive effort on behalf of these students, many of whom are being left behind in our current system.

The alternative – continuing to do what we have been doing – is indefensible. It would mean that a large and growing fraction of Maryland students, those who are currently being failed by the system, will fall even further behind. That is an unacceptable outcome, unacceptable for those students and unacceptable for a State that will increasingly depend on the contributions all of its citizens can make to the economy, political health, and quality of life in our State. This is why, from the beginning of its work, the Commission placed special focus on addressing the needs of students who are being left behind by the current education system.

The alternative – continuing to do what we have been doing – is indefensible.

The Commission is recommending that more resources – staffing, funding, attention – be directed to the students who need it the most. Data shows that the State has made little progress in addressing their needs. Large gaps persist in student achievement among subgroups of students, and in many cases the gaps are growing. The largest gaps exist between all students and students from low-income families, those who do not speak English fluently (English learners), and students receiving special education services. Previously referred to as students “at risk” of failing to succeed in school, the Commission is proposing to refer to these subgroups of students as “at-promise” students, meaning that they have the promise and potential to be successful in school if the education system is designed to meet their needs.

This is not simply a change in language. It is a change from the long-standing view in this country dating back to the Elementary and Secondary Education Act of 1965 that

there was something wrong with the students who were performing poorly, not the education system itself. The Commission takes a very different view. After examining the education systems of countries in which all students, across the board, including students who typically perform poorly in our country, are performing much better than in the United States, the Commission concluded that the problem is not the students. The problem is the system, meaning the school system and the system of social, health, and income supports outside the school. Thus, to fully understand what the Commission is proposing, to vault those least well served by the current system to much higher levels of performance, the answer will not be found simply in this policy area describing a series of special initiatives designed exclusively for at-risk students. That approach to education reform has produced an education system built on different expectations for different groups of students. The system the Commission has designed insists on high expectations for all students and, in the totality of its recommendations, provides the supports that all students will need to reach those expectations. These recommendations are intended to consign the old sorting system, so long in place, to the dustbin and to replace it with a system that will hold everyone involved accountable for getting all students to achieve high standards and provide the resources needed to accomplish that goal.

Having said that, it is clear that students who come to formal schooling who might be homeless, who need and cannot get basic physical and mental health care, who live in a neighborhood or in a family surrounded by poverty and constant violence, whose English is poor, whose vocabulary is so small that they have difficulty understanding what is going on in the classroom, or who have a disability, will need access to resources other students do not need to get the full benefits of the new system.

The Commission is recommending a new system that will work to greatly improve the achievement of those who up to now have achieved the least. It is also recommending additional financial resources that will be distributed to schools in a way that is not only fair on its face but is calculated to close the gaping holes between the current achievement levels of our low achievers and the standards the Commission is setting. Some of those financial resources will be distributed through funding formulas matched to characteristics of the students. Some will be distributed through categorical programs that describe particular services for which those funds must be used. In some cases, schools and districts will have wide latitude in deciding how the formula funds will be used, but in other cases that latitude will be constrained to make sure that the funds are used in ways consistent with what research says will work. Throughout, the Commission has carefully considered how much additional resources will be needed by particular groups of students to get from their average current performance to the performance levels the Commission believes they can and must achieve.

Element 4a:

- **Add a concentrated poverty weight to the funding formula** to support intensive services, for students and their families to enable them to succeed in school, that are coordinated and able to meet the additional needs of students in schools located in distressed communities.
- **Add fixed, categorical funding amounts for each school with concentrated poverty** to be used to (1) establish or enhance community schools and (2) establish or enhance school health and behavioral services.

Design Assumptions:

1. Achievement gaps between socioeconomic and racial populations are far too large in Maryland. Funding from the compensatory education formula and the concentration of poverty formula should be used to implement programs and provide resources that will close the achievement gap that exists between many student demographic populations.
2. Maryland provides substantial funding for students through its foundation and compensatory education funding formula which many schools utilize to provide wrap-around services to students in need of additional supports. However, top-performing systems around the world provide additional funds to provide a greater degree of additional services for those students that are at the highest risk of not succeeding in school.
3. Providing additional funding to schools with concentrated poverty will allow Maryland to provide funds to schools with high concentrations of poverty to enhance or establish programs and services to support the needs of students in those schools. The funding would be comprised of a fixed amount and a per pupil amount.
4. This additional funding will be available to every school with a concentration of at least 55% of its students living in poverty. This percentage is set high enough so that the students with the most need will benefit.
5. A fixed amount would be provided for each school that meets the 55% threshold. This fixed funding must be used to provide a community schools coordinator and a health services practitioner, who may work under a school health services program, school-based health center, or community-partnered school behavioral health services program. In addition to the fixed amount of funding there will be an amount per student enrolled at the school. This per pupil funding (in combination with the compensatory education funding) will be used to provide programs and services identified in a school's needs assessment. This includes, but is not limited to:
 - a. additional extended learning time including before and after school, summer, and extended school year;

Additional funding for schools with concentrated poverty will allow those schools to enhance or establish programs and services to support the needs of students in those schools.

- b. safe transportation to school;
- c. vision and dental care services;
- d. additional social workers, counselors, psychologists, and restorative practice coaches;
- e. physical wellness including providing food for in-school and out-of-school time and linkages to community providers;
- f. behavioral health services such as mental health practitioners and providing professional development to provide trauma-informed interventions;
- g. family and community engagement and supports including informing parents of academic course offerings, opportunities for children, and available social services as well as educating families on how to monitor a child's learning;
- h. linkages to Judy Centers and other early education programs that feed into the school;
- i. student enrichment experiences;
- j. improving student attendance;
- k. improving the learning environment at the school; and
- l. other professional development for teachers and school staff to quickly identify students who are in need of these resources.

The per pupil allocation will be provided on a sliding scale based on the concentration of students living in concentrated poverty so that a “cliff” effect is minimized.

- 6. The per pupil allocation will be provided on a sliding scale based on the concentration of students living in concentrated poverty so that a “cliff” effect is minimized. This means that schools with 55% of its students living in poverty will receive 0% of the per pupil amount steadily increasing to 100% of the per pupil amount for schools with at least 80% of its students in poverty.
- 7. Schools may use existing staff to be the community schools coordinator or the health services practitioner. This will provide more flexibility for how a school can implement this item particularly if a school already is a community school or already provides health services.
- 8. The State will provide the full resources for the fixed amount while the per pupil amount will be wealth equalized as are all other per pupil formulas under current law.
- 9. The requirement to establish a community school will be phased in as follows: (1) in fiscal 2020 a needs assessment will be completed and the fixed amount for a coordinator and health care practitioner will be provided for the schools with at least 80% of students living in poverty; (2) in fiscal 2021 a coordinator and health care practitioner will be provided for the remaining schools with at least 55% of students living in poverty.

10. The per pupil funding amount will be provided beginning in fiscal 2022 and is phased in reaching full funding by fiscal 2023.
11. The Maryland State Department of Education (MSDE) will need to hire a director of community schools coordinator to provide professional development for staff at the school level as well as disseminate information on and coordination of best practices.

Implementation Decisions:

1. For community schools, each school or school district will submit an implementation plan based on an assessment of need. School or district-level implementation plans should include, but are not limited to:
 - a. a community-based needs assessment process that may be conducted in partnership with a local capacity building organization to develop an implementation strategy for addressing the needs of the students and their families, building on and strengthening community resources near the school;
 - b. ensuring that an experienced and qualified community schools coordinator at the appropriate administrative level is hired;
 - c. inclusion, if possible and practicable, of community partners in geographic proximity to the school who can assist in meeting the needs identified;
 - d. ensuring that time is made available to train staff on the support available, the need for the supports, and how to engage with the community school coordinator in accessing these supports; and
 - e. development of strategies to maximize external non-State or local education funding.
2. Local school systems must demonstrate that funds provided under the weight are being provided to the schools in which the weight is applicable and are being used for the purpose of implementing the needs and implementation plans.
3. Local governments will be expected to demonstrate support through meaningful partnership and support that is supplemental to and does not supplant existing efforts.
4. Partner agencies such as local management boards should participate at the State level and provide necessary funding and support to enable local agencies to participate as partnering organizations.
5. Accountability measures should focus on indicators identified in the implementation plan that include, but are not limited to, successful implementation of the plan, number of students served and not served, time

to receive services, attendance, enrichment opportunities, reduction in disciplinary actions, student and principal satisfaction, and meaningful family involvement. It is important that accountability measures and data points be clearly defined and developed locally in partnership with each school district.

6. Every year, districts will be required to report on their program including progress on indicators.
7. Schools with a lower poverty threshold could still provide wrap-around services, organize a community school, and/or provide health and behavioral health services using their compensatory education funding.

Element 4b: Train school staff in all schools to recognize mental health issues as well as other issues related to trauma and coordinate access to needed mental health and other services for students, as part of the effort to increase school safety. (See Senate Bill 1265 of 2018 – signed into law as Chapter 30)

Design Assumptions:

1. Dedicated staff at MSDE will be responsible for close collaboration with other youth-serving agencies to establish shared goals, processes to collect and share data, and identify ways to leverage and blend funding to support behavioral health in schools. Dedicated staff at MSDE will coordinate with the school behavioral health coordinator and staff in local education agencies (LEAs).
2. Each LEA will have at least one licensed behavioral health coordinator dedicated to support school behavioral health with a master's degree and behavioral health training and experience in schools (mental health coordinator in each LEA required under Senate Bill 1265).
3. Staff in all schools will be trained to recognize student behavioral health issues, as well as students experiencing trauma or violence outside of school and how to refer students to behavioral health services.
4. Schools will develop and implement systematic screening to identify students with behavioral health needs using an evidence-based measurement approach.
5. School-based health centers (SBHC) should be established or enhanced in schools with high poverty rates.
6. Scale up school behavioral health service availability to ensure that all students have some exposure and access to behavioral health programming and services and to ensure that schools without an SBHC will organize response plans to connect all students to community-partnered school-based or community-based behavioral health and other services, as needed.
7. Schools will be required to develop partnerships with available community resources and experts in order to develop an active and comprehensive referral network for community-partnered school-based or community-based behavioral health services.

Staff in all schools will be trained to recognize student behavioral health issues and students experiencing trauma or violence outside of school and how to refer students to behavioral health services.

8. School staff will also be trained in protocols for how to support any student needing these services while enrolled in school.

Implementation Decisions:

1. Funding streams that currently exist through federal grants, State grants, local dollars, nonprofit grants and support, commercial insurance reimbursement, and Medicaid reimbursement are complex.
2. Current funding streams are viewed as inadequate.
3. Currently there is a lack of capacity and access in many communities to behavioral health services and behavioral health providers.
4. Need to identify adequate staffing ratios to support student behavioral health including staffing of psychologists, social workers, professional counselors, and occupational therapists (the federal Individuals with Disabilities Education Act (IDEA) and other educational funds can help support these staff members).
5. Services needed include activities that cannot be billed to commercial insurance or Medicaid including prevention, training, case management, behavioral health promotion, teacher consultation, and team meetings.
6. Needs assessment for SBHCs is needed to determine the need to expand capacity through existing SBHCs and new SBHCs and the amount of funding needed to expand based on the assessment.
7. Parent/guardian engagement is necessary to reduce stigma, permit access for students to services, enhance parenting skills and improve social, emotional, and educational outcomes for students.

Element 4c: Revise funding formula weight for special education students.

Design Assumptions:

1. State and federal law require school systems to identify, locate, and evaluate all students who have or are suspected of having disabilities and are in need of special education and related services.
2. To ensure students are not misidentified as being disabled, the law defines a list of eligible disabilities, and students must meet one of those criteria.
3. The timeline for identifying, locating, and evaluating students for special education and related services is established in State and federal law and regulation. Parental consent is required for students to be evaluated. An Individualized Education Plan (IEP) must be developed within 30 days of the date a student is identified as a student with a disability.
4. Federal law (IDEA) requires that schools provide a free appropriate public education (FAPE) to students identified as having a disability. Federal law defines FAPE as the provision of special education and related services that are

provided at public expense and without charge to the parent, that meet standards set by the state education agency, and that are provided in conformity with IEPs that meet the requirement of IDEA.

5. The United States Supreme Court, in *Endrew F. v. Douglas County School District*, 137 S. Ct. 988 (2017), held that FAPE must be tailored to the unique needs of a particular student and that the school system must offer an IEP that is reasonably calculated to enable a student to make progress appropriate in light of the student's circumstances. The court ruled that a student's education program must be "appropriately ambitious" in light of his or her unique circumstances. The court also held that a student's IEP must include a statement of measurable annual academic and functional goals and enable a student to be involved in and make progress in the general education curriculum.
6. House Bill 1415 was enacted in the 2018 session and it required MSDE, in consultation with the Department of Budget and Management and the Department of Legislative Services, to contract for an independent study to evaluate funding methodologies used nationally and internationally and make recommendations regarding the appropriate level of funding for special education students in Maryland.
7. Differentiated weights are preferred in principle, but Augenblick, Palaich, and Associates (APA) proposed a blended weight. It is anticipated that the special education study required by House Bill 1415 of 2018 will propose differentiated weights. In the meantime, the Commission will propose a single placeholder weight.
8. To provide special education resources, local school systems spend more than the current funding formula provides.
9. Total State and local expenditures on special education equaled \$1.567 billion in fiscal 2015. Of this, the State provided \$272 million, or 17.3% of the total. Thus the local funding accounted for the remaining \$1.296 billion.
10. Given this data, and accounting for foundation funding for the education of special education students, a weight equivalent to \$13,619 in fiscal 2020 dollars is recommended as a placeholder until the completion of the special education study required by House Bill 1415 and until any recommendations of the study are implemented in law. For context, this amounts to about 2.5 times more funding than the current law weight.
11. This placeholder weight will result in greater parity in State and local funding for special education.

It is anticipated that the special education study required by House Bill 1415 of 2018 will propose differentiated weights. In the meantime, the Commission will propose a single placeholder weight.

Implementation Decisions:

1. Because a special education study required by House Bill 1415 is due by December 2019, the new weight may be revised again in response to the study recommendations. It is anticipated that the placeholder weight recommended by the Commission may be in place for up to three years while the completed study is being reviewed and incorporated into State law.
2. Although school districts will have discretion in repurposing local funds as increased State funding becomes available, they are encouraged to reinvest in special education as appropriate to provide a robust level of services to meet the needs of the special education students. If there are other savings, school districts should direct the funds toward implementing the goals of the Commission.

Element 4d: Revise funding formula weight for English learner students.

Design Assumptions:

1. The Commission's preliminary report recommends increasing support for at-promise students, including special education, low-income, and English learners.
2. The Commission is concerned that changes at the federal level relating to the immigration status of documented and undocumented students will result in an undercounting of students for compensatory education formula purposes. Because these students and their families may not apply for federal benefits for which they are eligible, including free and reduced-price meals, they would not generate additional resources under the compensatory education funding formula. The Commission addressed this concern by increasing the amount of resources initially proposed by APA for English learner students (currently 76% of English learner students are also eligible for compensatory education) to ensure that students who would otherwise qualify for compensatory education receive the resources they need to be successful.
3. This will be done by incorporating the cost of providing the same instructional and intervention support, social and emotional support from counselors and social workers, and extended learning time through before- and after-school programming as well as summer school (collectively referred to as "pupil supports") that are included in the compensatory education weight into the English learners weight. This would require a concomitant adjustment for calculating the compensatory education formula such that the compensatory education formula will not include students who are also English learners (*i.e.*, an unduplicated count), as discussed below in Element 4e.
4. This weight will be provided for each student who is determined to be an English learner.

The English learner weight should be sufficient to allow for the provision of a family liaison or services specific to supporting families and connecting home to school.

5. The English learner weight should be sufficient to allow for the provision of a family liaison or services specific to supporting families and connecting home to school. The services that a family liaison would provide or coordinate could include translation services for communication between school personnel and parents through a bilingual liaison, cultural competency training for school personnel, other family support and family engagement, and referrals to outside resources that a school may not be able to directly provide. A school can determine what services would best meet the needs of their students.
6. English learner teachers must have specialized training, proficiency in the other language(s), and cultural competency.

Element 4e: Revise the funding formula for compensatory education using students living in poverty as the proxy.

Design Assumptions:

1. Provides additional resources for instructional and intervention support, social and emotional support from counselors and social workers, and extended learning time through before- and after-school programming as well as summer school (collectively referred to as “pupil supports”).
2. The following table shows the additional resources identified by APA under the evidence-based and professional judgement study panels and adopted by the Commission. These are resources in addition to the resources identified in the recommended base per pupil amount.
3. Total funding generated by all free and reduced-price meal students calculated under current law amounts to \$5.4 billion including the base per pupil amount.
4. Because the Commission decided to include pupil supports in the English learner weight under element 4d, the compensatory education weight will be applied to low-income students who are *not* also English learners.

	Elementary School of 450 students 50% Comp. Ed. (225 students)	Middle School of 720 students 50% Comp. Ed. (360 students)	High School of 1,200 students 50% Comp. Ed. (600 students)
Personnel (FTE)			
<i>Instructional Staff</i>			
Teachers	2.0	3.0	5.0
Instructional Facilitator (Coach)	1.0	1.0	2.0
Teacher Tutor/ Interventionist	1.0	2.0	3.0
<i>Pupil Support Staff</i>			
Counselor, Social Worker, Pupil Personal Worker, Behavior Specialist, etc.	2.0	3.0	5.0
<i>Administrative Staff</i>			
Dean		1.0	1.0
<i>Other Staff</i>			
School-based Site/Service Coordinator	1.0		
Other Costs (per student amounts)			
Supplies, Materials, and Equipment	\$100	\$100	\$100
Additional Programs (Summer School, Before and After School, etc.)	\$1,537	\$1,537	\$1,537
District-level (Alternative School)	\$125	\$125	\$125

Element 4f: Determine proxy for poverty to be used in the compensatory education formula and new concentration of poverty formula. While Maryland should continue to use poverty as a proxy count for educationally disadvantaged students in its compensatory education formula, it should transition away from its current practice of using free and reduced-price meal (FRPM) eligibility to determine counts and instead use direct certification including Medicaid eligibility.

Recent developments have created difficulties in continuing to use FRPM counts for education aid formulas around the country. Most significant has been the implementation of the Community Eligibility Provision (CEP) of the federal Healthy, Hunger-Free Kids Act, under which entire schools or school districts that meet a specific poverty threshold may provide free meals to all students, regardless of income level. This means that the individual counts that are required for the compensatory education formula are no longer available for participating schools and school districts. The Maryland Hunger-Free Schools Act (Chapter 665 of 2017) established a

methodology to determine the compensatory enrollment count for schools and school districts participating in CEP, for fiscal 2017 through 2022, as a stopgap measure. Currently, Baltimore City and Dorchester and Somerset counties participate in CEP districtwide and schools participate in CEP in several other districts.

The Commission was charged with recommending a new proxy to be used in the education formulas and reviewed the report from APA, which recommended either continuing to collect FRPM certification forms, which imposes an administrative burden on school systems and may not provide an accurate count, or to use direct certification counts plus a multiplier. The Commission also explored another option to use direct certification and Medicaid eligibility as a more accurate replacement for FRPM.

Direct certification refers to federal programs that certify income eligibility for participants, including the Supplemental Nutrition Assistance Program, Temporary Assistance for Needy Families, foster care, Head Start, Even Start, migrant students, and homeless students. These programs use eligibility thresholds that are below 185% of federal poverty level (FPL), which is the income limit to receive a reduced-price meal (free meals are provided to students with family incomes at/below 130%). Thus, using direct certification alone will produce lower enrollment counts than the current FRPM count unless a multiplier is used to approximate the actual FRPM count. However, establishing a multiplier that accurately estimates a FRPM count for each school system and for each school is not possible.

Design Assumptions:

1. The Commission recommends that Maryland transition to using counts of students whose families qualify for certain thresholds of Medicaid, while also including students identified through Maryland's direct certification system.
2. Medicaid is appropriate to be included because one of its eligibility thresholds equates to 185% FPL, which matches the maximum FPL threshold for FRPM. This will enable the new proxy to count students living in similar poverty levels to the current FRPM count. Statewide, Medicaid has a 0.994 correlation with FRPM.
3. Medicaid data also meets many additional criteria required for an alternative count; it is accessible, transparent, student-level, updated annually, does not require the use of a multiplier, and distributes funding in similar proportions by school system to the FRPM method.
4. Several states (*e.g.*, Illinois, Indiana, Massachusetts, and Michigan) have already begun using Medicaid and direct certification counts for their own compensatory programs.
5. A new direct certification information technology system is currently under development by MSDE, which will allow MSDE to verify student eligibility for the school systems.

Maryland should transition to using counts of students whose families qualify for certain thresholds of Medicaid, while also including students identified through Maryland's direct certification system.

6. While Medicaid and FRPM counts are highly correlated statewide, the Medicaid counts are somewhat higher than FRPM counts. This is due to various reasons, including the fact that not all children whose families qualify for Medicaid in Maryland attend *public* schools. Therefore, in order to determine the public school Medicaid count, the State will have to perform a match between its Medicaid counts and enrolled students.
7. Medicaid may undercount in instances when families with incomes below 185% FPL do not enroll in Medicaid, resulting in these students being excluded from the enrollment count. However, most if not all of these students would ultimately be included in the count through the direct certification system assuming they have enrolled in other assistance programs.

Implementation Decisions:

1. The State will need to ensure that MSDE and the Maryland Department of Health (MDH) can securely exchange student-level data. Therefore, the Commission recommends that MSDE and MDH complete a memorandum of understanding on how and when student data will be exchanged so that this data may be used in a safe and secure way to determine enrollment counts.
2. Maryland will need to modify its new direct certification system so that it can receive and process Medicaid data, while not double counting students who appear in Medicaid counts and counts for other categories. Under its current contract, Maryland's direct certification system is scheduled to be fully operational for school year 2019-2020. However, in order to add a Medicaid function for the system, this contract will need to be expanded.
3. Until the direct certification system is ready to handle the Medicaid counts, the Commission recommends that the State continue to use its current methodology of using FRPM counts as a proxy count for its compensatory aid formula, along with its alternative method for CEP districts.
4. Additionally, if the State's direct certification system is not able to handle Medicaid data before the end of fiscal 2022, legislation should extend the State's ability to calculate compensatory enrollment counts for CEP districts as it does currently under Chapter 665 of 2017 to a year in which the system is ready to handle Medicaid.

Developing Total Cost Estimates for Elements in Policy Area 4

The design assumptions and implementation considerations were used to guide the process of estimating the additional cost for each element. Total costs include State and local funding. The following is a summary and the full detail of the assumptions and methodology for costing out each element is in Appendix 6.

Element 4a. Concentration of Poverty: Actual data for the 2016-2017 school year was used to identify all public schools in the State with at least a 55% poverty level. The data used the actual poverty level and the number of students at each of these schools. The salaries for both the community school coordinator and the health services practitioner were based on actual salaries in Maryland of a social worker and a physician's assistant, respectively. Benefits including pensions were estimated and included. A per pupil amount was determined that would provide the services that a community school would provide. This amount was then linearly plotted such that it increased from \$0 for schools with 55% poverty to \$3,265 for schools with at least 80% poverty.

Element 4b. Health and Behavioral Health: Estimating the cost of this element was done as follows: (1) estimating salary and benefit amounts for the required coordinators at MSDE and in each LEA; (2) estimating training costs; and (3) expanding school-based health centers. For the remaining items under this element, it was determined that existing resources would be sufficient.

Element 4c. Special Education: Estimating this element involved a comparison of current law costs via the weight alone to the costs under the proposed placeholder weight alone, using the same enrollment assumptions in both cases. The estimate accounts for the placeholder weight of \$13,619 per pupil in fiscal 2020 dollars, exceeding the current law per pupil weight of \$5,631 by \$8,258 per pupil. However, the estimate involves a three-year phase-in of costs. Though it is assumed that the placeholder weight will be altered by fiscal 2023 (following the study required by House Bill 1415 of 2018), cost estimates are shown through fiscal 2030.

Element 4d. English Learners: Estimating this element was done by comparing the total funding generating for an English learner, including both the base per pupil amount and the amount generated by the weight for these students, under current law and under the APA-recommended base and weight as identified in this element. Under current law, a total of \$14,416 per English learner in fiscal 2020 dollars would be generated. Under this element, a total of \$18,614 would be generated. The difference of \$4,198 was then multiplied by the estimated number of English learners in the State to reach the total new cost.

Element 4e. Compensatory Education: A method similar to that used for English learners was used for estimating compensatory education. Total funding under current law including the base per pupil and the amount generated with the weight was compared to funding under the APA recommended base and weight as identified in this element. It should be noted however that the APA recommended base was

multiplied by all students eligible for free and reduced-price meals whereas the weight was only applied to the number of students who are eligible for free and reduced-price meals but who are *not* also eligible for the English learner weight. This unduplicated count is important to use given that pupil support resources are also included in the English learner weight.

As shown in Exhibit 4.9, the annual new cost for all of the elements in Policy Area 4 is estimated to be \$331.5 million in year 0 (fiscal 2020) and increases to \$2.2 billion by year 10. The costs in the exhibit represent the cost of this policy area in isolation from other policy areas. See Chapter 5 for an explanation of deductions of costs that overlapped with costs already identified in another policy area as well as cost savings.

Exhibit 4.9: Total Estimated Additional Costs

Policy Area 4 More Resources to Ensure Success for All Students

Year		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
		0	1	2	3	4	5	6	7	8	9	10
Element	concentration of poverty:											
	4a local community school coordinators	23.4	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
	local physician asst.	31.1	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
	per pupil	0.0	0.0	241.7	483.4	483.4	483.4	483.4	483.4	483.4	483.4	483.4
	concentration of poverty total	54.5	138.6	380.3	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	4a MSDE community school coordinator	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	4b health/behavioral health	2.0	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
	4c special education placeholder weight*	275.0	451.1	908.4	914.5	917.4	920.4	921.9	921.5	923.3	925.1	926.9
	4d English learners weight	0.0	191.6	409.7	439.1	464.0	495.2	527.7	561.2	598.8	639.1	682.4
	4e compensatory education weight	0.0	92.7	169.2	151.2	134.6	113.4	90.5	65.8	39.3	10.9	-19.6
Total		\$331.5	\$884.4	\$1,877.8	\$2,137.2	\$2,148.4	\$2,161.4	\$2,172.4	\$2,180.8	\$2,193.7	\$2,207.4	\$2,222.0

Note: Costs reflect total costs, which may include State and local funds.

*For FY 20, the commission is proposing \$137.5 million in State funds for special education; the \$275 million shown includes local funds. Total costs are also shown in the out-years.

Policy Area 5

Governance and Accountability

How funds for education are spent is at least as important as how much is spent in determining student achievement and funding equity.

Research shows that, beyond a threshold level, how funds for education are spent is at least as important as how much is spent in determining student achievement and funding equity. The Commission's recommendations call for a substantial increase in funding for Maryland schools in order to implement strategies for greatly improving student achievement and equity. These recommended strategies have proven to be highly successful in the top-performing countries and, for the most part, in Massachusetts, the only state in the United States that performs at a high standard internationally.

Almost two decades ago, a predecessor commission, the Thornton Commission, recommended increased funding for preK-12 education in Maryland. While there was some increase in student achievement on State standardized tests as the funding was phased in, unfortunately this funding did not produce significant increases in student outcomes, especially on the National Assessment of Educational Progress where Maryland students continue to rank in the middle of the pack in comparison to students in the other 49 states. Despite Thornton funding, significant student achievement gaps still persist. This must not be replicated with the Commission's recommendations. It is imperative that a strong system of accountability be put in place to give the public confidence that its increased investment in preK-12 education will lead to a system that performs as well as the best education systems in the world.

Fundamental changes in institutional culture and in established ways of doing things will be required.

The recommendations of this Commission amount to a proposal to substantially redesign Maryland's education system for high performance. Many agencies and institutions at all levels of Maryland government have key roles to play in bringing this new system into being. Fundamental changes in institutional culture and in established ways of doing things will be required. All of the institutions and agencies involved will have to work in concert within the context of one coherent plan and be held accountable for playing their respective roles in implementing the Commission's redesign of the preK-12 education system in Maryland. The governance and accountability proposals that follow are based on the idea that this will happen only if there is an Independent Oversight Board with the authority to make certain that the new funds are used to implement the Commission's recommendations with fidelity and effectiveness and achieve the desired results.

Element 5a: There will be an **Independent Oversight Board with authority to develop a comprehensive plan for implementing the Commission's recommendations** and then hold all the State and local institutions and agencies involved in that plan accountable for carrying out their assigned roles. It will monitor the implementation of the 10-year plan, evaluate the outcomes achieved by all involved agencies against the goals set by the Commission, and sunset at the end of the implementation period specified in the enabling legislation.

Design Assumptions and Implementation Decisions:

1. **Membership and appointments:** The Oversight Board will consist of seven members, appointed by the Governor with the consent of the Senate. The members will include experts in preK-12 and postsecondary policy, including individuals with public preK-12 teaching experience, with knowledge of the strategies used by the top-performing states and countries to get to world-class performance, and leaders with proven records of implementing systemic change in complex organizations. The seven individuals will be chosen from a slate presented by a nominating committee of six individuals, two appointed by each of the Governor, the President of the Senate, and the Speaker of the House of Delegates. Members of the nominating committee should also have knowledge of preK-12 policy, the strategies used by the top-performing states and nations, and systemic change in complex organizations. Should any member of the Oversight Board be unwilling or unable to serve until the body sunsets, the same procedure would be used to select replacements as was used to create the initial membership.
2. **Staffing:** The Oversight Board will have an executive director and a staff of about 15 people with sufficient funding to hire expert consultants to fulfill its duties.
3. **Authority and functions:** The Oversight Board is not intended to usurp the operational authority of the Maryland State Department of Education (MSDE); Governor's Workforce Development Board (GWDB); Maryland Higher Education Commission (MHEC); Department of Commerce; Department of Labor, Licensing, and Regulation; higher education institutions; or any other State agency or entity that will be involved in implementing the legislation. Likewise, it is not intended to replace day-to-day decision making by local boards of education and superintendents, nor is it intended to abrogate lawful collective bargaining processes and agreements. Responsibilities and authorities not assigned to the Oversight Board through the Commission's proposals and enabling legislation are reserved to the State and local institutions in accordance with current law. It is instead intended to develop, with input from those State and local agencies and entities, a comprehensive plan for implementing the legislation and then to hold these State and local agencies and entities accountable for their assigned roles in implementation by reviewing and approving the policies, plans, and operations

of each agency and entity for compliance with the overall plan; monitoring implementation; and gathering and analyzing data on results. It will also assess the adequacy of resources available to achieve the plan's goals on student achievement. The Oversight Board will report on those results and recommend appropriate actions to the Governor, the General Assembly, local governments, and the public. If, in the judgement of the Oversight Board, action by the Governor and legislature is needed to improve implementation of the enabling legislation while implementation is underway, it will say so.

Specifically, the Oversight Board will:

- a. with input from the State and local agencies and entities charged with implementing the legislation, including those named above, develop a Comprehensive Implementation Plan – including a timeline with key milestones for the year-by-year implementation of the enabling legislation;
- b. develop guidelines and criteria for State agencies, local school systems, and other entities to submit detailed implementation plans consistent with the Comprehensive Implementation Plan to the Oversight Board;
- c. review and approve State agency, local school system, and other entity implementation plans and related instruments for consistency with legislative intent and the Comprehensive Implementation Plan. Among such plans and instruments will be, *for example*:
 - i. plans from MHEC and MSDE for (i) redesigning the process for accrediting teacher education programs in the State using criteria consistent with the Commission's proposals for strengthening teacher education in Maryland and (ii) making awards to collaboratives of teacher education institutions and school districts for the purpose of working jointly on improving the quality of beginning teachers in Maryland;
 - ii. MSDE's plans for expansion and coordination of Judy Centers and Family Resource Centers and for building capacity to expand pre-K for four- and three-year-olds;
 - iii. MSDE's plan for the selection, assembly, deployment, and oversight of Expert Review Teams (see Element 5b) to, among other responsibilities, review in detail the operation of schools and districts in which the average student or groups of historically underserved students are not making progress at a rate likely to enable them to achieve a college- and career-readiness (CCR) endorsement by the end of grade 10;
 - iv. criteria on which MSDE will review and recommend approval (or disapproval) of local school system implementation plans and

release of funds, including how local education agencies (LEAs) plan to adapt curriculum, instruction, and the organization of the school day to enable more students to achieve the CCR endorsement by the end of grade 10 and to identify students who are falling behind and develop a plan to get them back on track for CCR endorsement (see Element 5e);

- v. MSDE's plan for training Maryland teachers, school leaders, administrators, school boards, superintendents, deans of teacher preparation programs and members of the Professional Standards Board on the Commission's recommendations; and
 - vi. GWDB/Career and Technical Education (CTE) Committee standards and strategies for the development of rigorous CTE pathways, including apprenticeships or other meaningful workplace experiences leading to industry-recognized credentials, integrating and redeveloping high school and postsecondary career and technical education programs into rigorous and articulated pathways, and benchmarks and targets to measure the success of CTE programs against State CTE goals and international standards;
- d. monitor implementation efforts against the comprehensive plan and schedule, coordinate between agencies, and work with the respective agencies and entities to resolve implementation issues as they arise;
- e. gather and analyze data that reflects how the implementation plans are being implemented and their effects on student performance over time, with special emphasis on progress in closing achievement gaps based on income, race, ethnicity, and disability, including the authority to investigate whether local education agencies or schools are making sufficient progress; the Oversight Board should also review and analyze disaggregated data on student outcomes and other related metrics, such as absenteeism, disciplinary actions, enrichment opportunities, and meaningful family involvement; the Oversight Board will have authority to gather and use data from all related government agencies, including the Maryland Longitudinal Data System; the Civil Rights data collection from the U.S. Department of Education, and the Mid-Atlantic Equity Consortium should also be used in developing appropriate indicators to be measured. Any additional data needed to support the accountability system called for by the Commission should be collected by MSDE or other appropriate agencies for analysis;
- f. contract, as necessary, with independent experts;
- g. report progress at least annually to the Governor, legislature, and the public; describe implementation problems as they arise, and make recommendations as to changes in legislation, including on the adequacy of resources and accountability necessary to ensure the strategic plan will

- h.** coordinate through MSDE the State’s participation in the Organisation for Economic Co-operation and Development’s (OECD) Programme for International Student Assessment (PISA) survey program; and
- i.** conduct or contract with others to conduct a study to strengthen the capacity of MSDE to assume the roles and responsibilities assigned to it in the enabling legislation.

Element 5b: MSDE will track and report on the progress of students in each Maryland school, as a whole and by and within subgroups, based on income, race, ethnicity, and disability, regarding their progress toward the CCR by the end of tenth grade and the closing of achievement gaps. MSDE will use this data to identify schools in which students, especially groups of historically underserved students, are not making adequate progress toward CCR.

Design Assumptions and Implementation Decisions:

1. MSDE will create and have sole responsibility for a system of Expert Review Teams (see 5a above) to conduct on-site investigations of the causes of poor student performance and make recommendations for correcting the problems identified to the school faculty, the school board, the community, and MSDE on measures that need to be taken by each of these bodies to improve the performance of these low-performing schools.
2. Members of the Expert Review Teams will, when the career ladder is well established, be selected from among expert teachers and principals from those in senior positions on the career ladder and others whose expertise is directly relevant. Prior to that, MSDE will select Expert Review Team members from the ranks of highly regarded teachers, school leaders, and senior department staff members. These teams will be assembled, directed, and report to MSDE. They, along with measures already underway as part of the statewide Every Student Succeeds Act (ESSA) plan, should be regarded as a key element of MSDE's overall system for monitoring school and system performance and for taking corrective action where necessary.
3. All people appointed as members of Expert Review Teams will receive extensive training in the performance program described in the Commission's report and on the rationale for that design, including extensive knowledge of the way similar systems work in the top-performing systems elsewhere in the world.
4. The purpose of these reviews will be to conduct interviews, observe classes, and use other data to analyze the extent to which the recommendations of the Commission are being implemented, and in collaboration with district and school-based staff, determine reasons why the student progress is insufficient and develop recommendations, measures, and strategies that need to be taken to address the issues identified by the Expert Review Team. While the reports of the Expert Review Teams will ultimately be used for accountability purposes and possible corrective actions, these outside reviews are intended to provide a strong, credible source of expertise that will prove supportive and helpful to the schools and districts they advise.
5. Expert Review Teams will begin to review school performance in year 3 of implementation and will be staffed sufficiently to conduct comprehensive visits at approximately 10% of public schools each year (about 150 schools). The

lowest performing schools (including schools with the lowest overall performance and those with subgroups of students performing poorly on State accountability tests or based on other data produced by the new data monitoring system under ESSA) will be visited every year, with other low-performing schools visited less often but regularly. All other schools will be subject to visits from Expert Review Teams at intervals determined by a randomized selection process. Once the Expert Review Team system has been established, and prior to year 5, schools that might not otherwise be selected for review may request a review from MSDE.

6. From year 3 through year 4, the Review Team reports and recommendations will be strictly advisory and will have no consequences for the schools and districts in terms of funding. They will be intended to provide collegial advice from peers that the schools and districts can use to improve their performance. The review team will be expected to work with school and district staff to develop recommendations to the schools and districts for strengthening the program and management of both the schools and districts.
7. Beginning in year 5, the reports and recommendations made by the Expert Review Teams will be used by MSDE as a basis for a recommendation to the Oversight Board as to whether or not a portion of new (*i.e.*, annual increase) funds should be withheld in year 6 until the schools and districts produce satisfactory plans for the use of those funds. MSDE recommendations on funding will go to the Oversight Board for action. The aim should be to give the schools and districts every opportunity to submit a satisfactory plan before an adverse recommendation is made. Once such an action has been taken, MSDE will be expected to work as quickly as possible with the schools and districts to address the outstanding problems, so the funds can be released.

Element 5c: The CTE Committee will **track and report on the progress of students in each Maryland school with a CTE pathway**, as a whole and by and within subgroups based on income, race/ethnicity and disability, regarding their progress toward achieving meaningful industry credentials and related employment upon graduation or in successful transfer to a community college CTE program or accredited, recognized apprenticeship program.

1. The CTE Committee will establish performance metrics for schools with CTE programs and pathways.
2. The CTE Committee will use State accountability data to identify schools in which insufficient numbers of students or groups of protected classes of students are not making adequate progress toward completion of its CTE pathway. The Committee will organize and be responsible for Expert Review Teams of representatives of employers, trade unions, and other apprenticeship sponsors when appropriate, and CTE educators to visit those schools and employer sites to analyze the problems preventing adequate student progress

toward successful completion of the CTE pathway and issue recommendations to the school board, the school community, and the State for actions needed to correct those problems. This whole process will parallel the process described for the review of schools by MSDE above in Element 5b.

3. The CTE Committee will schedule the visits of the Expert Review Teams to inform the annual decisions made by the CTE Committee and MSDE on the release of school funds conditioned on student performance. Schools, districts and employers will be given adequate time to respond to the recommendations of the Expert Review Teams before any funds to which the schools would otherwise be entitled are sequestered.
4. The local school board, the school, and the relevant employers and employer associations will review the Expert Review Team's recommendations, which may include recommendations that require State action and submit a plan to the CTE Committee for addressing the Expert Review Team's recommendations.
5. Among the recommendations that might be made by these Expert Review Teams to the school, school board, and the State would be pairing the struggling school with another school with similar demographics but considerably better performance with its CTE pathway in a way that would involve the principal of the high-performing school taking responsibility for sharing his or her expertise and that of his or her staff with the faculty of the struggling school.

Element 5d: MSDE and MHEC will **track and report on the progress of the teacher preparation programs in the State in upgrading the quality and standards of their programs** in response to the Commission's recommendations.

Design Assumptions:

1. MSDE and MHEC will prepare for the Oversight Board and the Governor and General Assembly an annual joint report on the progress made in implementing the Commission's recommendations on teacher education in Maryland. That report will include data on trends in (1) teacher quality as measured by the grades, class standing, and accountability test performance of students applying to and admitted to Maryland teacher education institutions and alternative programs that prepare educators; (2) the number of applications to and acceptance by those institutions, as a whole and by gender and racial and ethnic background; (3) the proportion of graduates of teacher education programs (including those graduates expecting to teach at the elementary school level) who have majored as undergraduates in the subjects they plan to teach; (4) the proportion of new teachers hired in the State who were trained out of state to those trained in the State; and (5) the satisfaction of school district officials with the new teachers they

hire who have just graduated from Maryland institutions as determined by their responses to questions on a form they helped to develop.

Holding teacher preparation programs accountable for the success of the teachers they train is critical to achieving the Commission's goals.

2. The Commission recognizes that success of the new education system that the Commission is recommending depends on teachers who are better prepared to meet the higher standards and greater responsibilities called for by the Commission. Holding teacher preparation programs accountable for the success of the teachers they train is critical to achieving the Commission's goals. The Oversight Board must monitor the performance of higher education institutions and alternative teacher preparation programs and, if it finds that a program is not effective, the Oversight Board will have the authority to recommend that the program's accreditation be reviewed.
3. MHEC and MSDE were recently authorized by the General Assembly to approve teacher preparation programs at Maryland higher education institutions. The Oversight Board will develop criteria for MSDE and MHEC to use in reviewing plans of teacher preparation programs to increase proportions of highly qualified candidates, incentives to attract high-quality high school graduates, and metrics and goals to increase the number and diversity of better trained, more effective teachers.

Implementation Decisions:

1. The annual report by MSDE and MHEC on the effectiveness of teacher preparation programs and measures taken during the prior year by the programs to implement the Commission's recommendations concerning teacher quality in Maryland shall include the following:
 - a. measures taken to increase the proportion of highly qualified applicants to teacher education institutions who come from minority backgrounds;
 - b. measures taken to increase the proportion of high school graduates with very strong academic backgrounds selecting teaching as a career;
 - c. measures taken to make teacher education in the underlying disciplines more rigorous;
 - d. measures taken to better align the programs of the teacher education institutions with State curriculum frameworks;
 - e. measures taken to improve the background of beginning teachers in research and research techniques;
 - f. implementation of more rigorous licensing standards and measures for new teachers in both mastery of the subject or subjects being taught and the methods for teaching them;
 - g. implementation of incentives to attract high-quality high school graduates into careers in teaching;

- h. trends in the rates at which teachers are acquiring the credentials needed to go up the new career ladders, including National Board Certification and higher steps on the ladder;
- i. trends in the distribution of teachers along the steps of the new career ladder;
- j. trends in longevity in teaching in Maryland schools and, in particular, in service in schools serving high proportions of historically underserved students;
- k. trends in the number of teacher candidates of color hired by school systems broken down by higher education institution/alternative teacher preparation program and the systems in which those new teachers were hired; and
- l. trends in the number of teachers certified through alternative preparation programs that meet the Commission's recommendations related to a longer practicum by school system.

Element 5e: Not less than 25% of new funds (*i.e.*, “new funds” means the increase in State education formula funds over the prior fiscal year) available to the schools and school systems for *initial funding of implementation plans* will be released subject to approval by the Oversight Board, after consideration of the recommendations made by MSDE and the CTE Committee and recommendations made by Oversight Board staff, of the implementation plans submitted by the school systems to implement the Commission recommendations.

Beginning in year 6, not less than 25% of new funds will be released only on approval by the Oversight Board, after consideration of the recommendations made by MSDE and the CTE Committee and recommendations made by Oversight Board staff, that (1) the schools and district are appropriately implementing the Commission's recommendations; (2) the plans for the upcoming years are fully responsive to those recommendations; and (3) the student body as a whole and student subgroups are making adequate progress toward CCR.

Design Assumptions and Implementation Decisions:

1. This recommendation is intended to provide school districts and school faculties with strong incentives to implement the policies and practices the Commission believes will greatly improve student performance and close performance gaps between historically underserved populations of students and others. This recommendation is paired with the preceding recommendation concerning Expert Review Teams. MSDE and the CTE Committee are expected to field Expert Review Teams in schools and districts in which data gives them good reason to believe that students are not making reasonable progress toward earning diplomas, CCR, and meaningful industry credentials. It will be up to the Expert Review Teams to gather data and testimony from many sources and to produce sound recommendations for

actions to be taken by the school, district, employers (where appropriate in the case of CTE), and the relevant State agencies.

2. The Commission expects that MSDE and the CTE Committee, when making recommendations about not releasing a portion of new funds in response to inadequate performance and plans, will lean heavily on the advice they receive from the Expert Review Teams. The Commission does not believe that funds should be withheld from any school or district simply because of poor student performance. Poor student performance should instead be used to trigger more intense monitoring including by Expert Review Teams.
3. A portion of new funds should be withheld only when the district or school is not doing what it should be doing to improve student performance and for only so long as it takes to produce a plan which, in the judgment of the Expert Review Team, is consistent with the Commission's plan and likely to lead to the improvement that is needed. The Oversight Board has the final authority to withhold funds after consideration of the recommendations of MSDE/CTE Committee and Oversight Board staff and based on its own judgment.
4. A recommendation to the Oversight Board from MSDE or the CTE Committee to withhold funds will be made only after an Expert Review Team has made recommendations for changes, the school or district has had sufficient time to respond, and MSDE and/or the CTE Committee has determined that the response from the school and district is inadequate.
5. In no case will allocated funds be reduced once the Oversight Board determines, based on the recommendations of MSDE and the CTE Committee and its own staff, that a school or district plan is satisfactory. However, MSDE and the CTE Committee may, with the approval of the Oversight Board, release some funds while continuing to withhold others if some parts of a plan are satisfactory and others are not.
6. The process will be mindful of local budget cycles. An initial warning will be given by the Oversight Board to the school principal and local superintendent regarding the potential for funds to be withheld for the upcoming school year by December 1 of the current school year. A final decision regarding withholding funds for the upcoming school year will be made by February 1 of the current school year. The principal and superintendent will be notified immediately of any recommended withholding of funds.

The Commission does not believe that funds should be withheld from any school or district simply because of poor student performance.

The majority of all State and local formula funds allocated to school systems on the basis of student enrollment and student needs should follow students to their school.

Element 5f: Not less than 75% of enrollment-based formula funds allocated to school systems or schools on the basis of the needs of students enrolled in the school will flow down to the school for use by the school to educate the children in that school.

Design Assumptions and Implementation Decisions:

1. It is the intention of the Commission that the majority of all State and local formula funds allocated to school systems on the basis of student enrollment and student needs should follow students to their school for use in educating those students and providing the extra resources they may need.
2. The Oversight Board will monitor school-level spending (which will necessitate LEA reporting of student-level spending by school and likely a new financial reporting system for MSDE and LEAs) by LEAs and may develop an appeal process by which LEAs may request flexibility in meeting this requirement, at least in the transition period as full implementation of the Commission's policy and funding recommendations are phased in.

Developing Total Cost Estimates for Elements in Policy Area 5

The design assumptions and implementation decisions were used to guide the process of estimating the additional cost for each element. For Policy Area 5, costs are State costs. The following is a summary and the full detail of the assumptions and methodology for costing out each element that has a cost is in Appendix 6.

Element 5a Independent Oversight Board: The recommended Oversight Board consisting of 15 staff is estimated to cost \$1.75 million annually. The 15 staff in the estimate include 1 executive director, 2 lead professional staff, 2 assistant Attorney General legal staff, 8 professional staff, and 2 support staff. The estimate also includes \$200,000 in annual consultant fees for program evaluations totaling \$2 million over 10 years. After 10 years it is assumed that the oversight board will be dissolved.

Element 5f Monitor school level spending: A new financial reporting system for MSDE is needed to collect and report on the financial data related to the recommendations in this report. Costs to develop and maintain the system will depend on implementation choices. Under one set of assumptions, for example, it would cost approximately \$5 million over two years to develop the financial database system. After the system is developed there may be an annual maintenance fee of approximately \$100 per user.

As shown in Exhibit 4.10, the annual new cost for all of the elements in Policy Area 5 is estimated to be \$750,000 in year 0 (fiscal 2020) and increasing to \$4.25 million in years 1 and 2 (fiscal 2021 and 2022) and then remains constant at \$2 million annually beginning in year 3.

Exhibit 4.10: Total Estimated Additional Costs

Policy Area 5 Governance and Accountability (in \$ millions)

Year		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
		0	1	2	3	4	5	6	7	8	9	10
Element	5a Oversight Board	0.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	5b Expert review teams (costed under element 3)											
	5c CTE committee (costed under element 3)											
	5e Oversight Board		2.5	2.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total		\$0.8	\$4.3	\$4.3	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0

Note: Costs reflect total costs, which may include State and local funds. Element 5d has no additional cost.

Chapter 5:

Total Cost, Funding Priorities, and Next Steps for the Commission

This chapter provides the total estimated cost of the Commission's recommendations after adjustments were made for cost savings and overlaps between elements and policy areas.

State and Local Cost to Implement Policy Recommendations

The total estimated costs to implement the policy recommendations described in Chapter 4 were developed by the Commission, staff, and consultants based on a 10-year implementation timeline. The potential phase-in timeline of the policy recommendations proposed by the Commission, as shown in Chapter 3, was used to estimate the costs that would be incurred each year in total – State and local funding combined – in addition to what is currently being spent by the State and local school systems on preK-12 education.

A brief description of how the cost of each element was determined can be found in Chapter 4. A more detailed explanation of the cost assumptions is included in Appendix 6. This chapter provides the total estimated cost of the Commission's recommendations after being adjusted for cost savings and overlaps between elements and policy areas. The Commission went to considerable effort to analyze and eliminate any duplication of costs among the policy areas. It also carefully and thoughtfully incorporated savings from current expenditures that would accrue as present practices are phased out and the impact of new policies and practices are realized. Approximately \$100 million in cost overlaps and savings are estimated in fiscal 2020, increasing to a reduction of \$2.2 billion by fiscal 2030, as discussed further below. In total, the adjusted cost of the recommendations, after taking into account cost overlaps and savings across the five policy areas, amounts to \$480 million in fiscal 2020, increasing to \$3.8 billion by fiscal 2030 as in Exhibit 5.1. The assumptions used in estimating the costs and savings are described further below.

Exhibit 5.1: Total Estimated Cost Increases to Implement Policy Recommendations

(in \$ millions)

		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30
		0	1	2	3	4	5	6	7	8	9	10
Policy Area	1 Early Childhood Education	\$29.0	\$162.3	\$254.4	\$363.0	\$409.9	\$426.6	\$482.5	\$516.0	\$586.0	\$676.3	\$814.4
	2 High-quality & Diverse Teachers & Leaders	172.8	401.1	731.0	1,013.6	1,347.0	1,594.3	1,820.9	2,080.1	2,344.2	2,572.2	2,817.9
	3 College & Career Readiness Pathways	46.6	220.1	224.8	192.5	165.6	136.8	139.4	141.9	144.7	147.5	149.7
	4 More Resources to Ensure Success for all Students	331.5	884.4	1,877.8	2,137.2	2,148.4	2,161.4	2,172.4	2,180.8	2,193.7	2,207.4	2,222.0
	5 Governance and Accountability	0.8	4.3	4.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cost Savings/Offsets		-100.5	-173.2	-408.6	-629.4	-879.2	-1,087.6	-1,294.0	-1,519.9	-1,754.9	-1,961.0	-2,174.4
Net Total Costs		\$480.2	\$1,498.9	\$2,683.7	\$3,078.8	\$3,193.6	\$3,233.5	\$3,323.1	\$3,400.9	\$3,515.6	\$3,644.3	\$3,831.7

Note: Costs reflect total costs, which may include State and local funds.

Costs are reflected as total, public funding amounts with no distinction between State and local share.

Process for Estimating the Total Cost

To estimate whether a set of policy recommendations incurred a cost or savings, general overarching rules were established for consistency of process. First, for each policy recommendation, an assumption was made whether the element incurred a new, additional cost above current amounts, or instead required a shifting of existing resources. Second, an assumption was made whether the cost was a one-time or ongoing cost. Third, adjustments were made for overlapping and interacting costs to eliminate double counting or inaccurately inflating costs. Adjustments were also made for cost savings that are expected to be realized as the recommendations are implemented.

Costs are expressed in fiscal 2020 dollars and are held constant through fiscal 2030 (not adjusted for inflation). Costs are reflected as total, public funding amounts with no distinction between State and local share. Across all policy areas, fiscal 2020 was “year 0” as a planning year as jurisdictions gear up and develop plans to implement the Commission’s recommendations, with some recommendations targeted to begin immediately. This is discussed further in “Funding Priorities for 2019 Legislative Session” below. Full implementation will be complete by year 10, or fiscal 2030. Several policy recommendations have different phase-in and phase-out schedules that affect implementation, as shown in the timeline and described further in Chapter 4.

Adjustment for Cost Overlaps

As noted earlier in this report, the policy areas are closely intertwined and interdependent. This close linkage means that, in several cases, costs identified in one policy area were also identified in another policy area. The largest overlap is between Policy Areas 2 and 4. The cost of implementing the career ladder, additional teachers, and salary increases in Policy Area 2 overlap with the costs identified in Policy Area 4. By year 10 (fiscal 2030) this overlap is estimated to be \$1.3 billion. A similar overlap exists between Policy Area 2 and Policy Area 1, estimated to total \$33.1 million in year 10. These amounts for each of the years of the Commission’s plan are shown in Exhibit 5.2.

Exhibit 5.2: Total Estimated Cost Savings/Overlaps

(in \$ millions)

	FY 20 0	FY 21 1	FY 22 2	FY 23 3	FY 24 4	FY 25 5	FY 26 6	FY 27 7	FY 28 8	FY 29 9	FY 30 10
Policy Area 2 & 4 Overlap	\$71.5	\$166.0	\$309.0	\$432.8	\$581.8	\$694.4	\$799.3	\$918.4	\$1,043.6	\$1,154.9	\$1,276.3
Policy Area 1 & 2 Overlap	\$29.0	\$1.9	\$6.6	\$14.8	\$16.9	\$17.8	\$19.9	\$20.9	\$23.7	\$27.3	\$33.1
Decline in Special Education Costs	\$0	\$0	\$83.2	\$167.6	\$252.2	\$337.3	\$422.3	\$506.5	\$592.1	\$678.0	\$764.3
Eliminating Current NBPTS Stipends	\$0.0	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4	\$5.4
Potential Reduced Current PD Costs	\$0.0	\$0.0	\$2.6	\$5.3	\$7.9	\$13.2	\$18.4	\$26.3	\$34.2	\$39.5	\$39.5
Potential Reduced Central Office Staff	\$0.0	\$0.0	\$1.8	\$3.6	\$15.1	\$19.6	\$28.7	\$42.3	\$55.9	\$55.9	\$55.9
Total Potential Savings	\$100.5	\$173.2	\$408.6	\$629.4	\$879.2	\$1,087.6	\$1,294.0	\$1,519.9	\$1,754.9	\$1,961.0	\$2,174.4

Note: Costs reflect total costs, which may include State and local funds.

NBPTS: National Board for Professional Teaching Standards

PD: Professional development

The primary reason for the overlaps with Policy Area 2, in particular, relates to how the cost estimates will ultimately be incorporated into education funding formulas. Although the Commission has not yet recommended a distribution of the costs between the State and local jurisdictions, some preliminary assumptions about how the costs may be incorporated into the funding formulas was necessary in order to more accurately estimate the costs for certain types of students. Policy Areas 1 and 4 each independently identified the total amount of funding needed to support certain populations of students, (prekindergarten students in Policy Area 1, and targeted student populations in Policy Area 4), that included an assumed foundation (or base) per pupil formula amount as well as the amount of additional resources needed for these student groups that will then be translated into a student weight. Since many of Policy Area 2's recommendations pertain to base or general costs that apply to or benefit all students (*e.g.*, the number of teachers and teacher salaries), they will likely be incorporated into the foundation formula, which results in significant overlap in the identified costs. Therefore, this overlap is deducted from the total cost of all policy areas.

Adjustment for Cost Savings

Throughout the process of establishing assumptions and implementation decisions, the Commission also identified areas of likely cost savings. These include a decline in the need for special education services and related funding, eliminating NBC stipends for teachers, a decline in professional development costs, and a decline in central office staff. Another potential savings discussed further below, although not incorporated in the adjusted cost, is the possibility of increasing class sizes for grades 4 and higher.

Also not incorporated in the adjusted costs are teacher recruitment savings due to higher retention rates and teacher recruitment costs for hiring more teachers. As the Commission's recommendations are implemented and more teachers choose to remain in the profession longer, there will be less teacher turnover and teacher induction costs. However, because the Commission is also recommending a substantial increase in teaching staff, there will be new recruitment and other hiring costs. Therefore, the Commission assumed that the combination will ultimately result in no net additional administrative costs to the school systems.

Special Education Enrollment Decline Expected

When looking at the Commission's recommendations holistically, that is, once all five policy areas have been implemented in part or in full, the Commission recognized that the identification of students in need of an individualized education program (IEP) would decline. This decline is expected to occur due to the early warning systems that will be in place to identify students who are struggling to learn and the immediate interventions that will be available to put the students back on track towards achieving college and career readiness. The Commission made assumptions about the number of students who would no longer be identified as needing an IEP in order to quantify an amount of cost savings.

Throughout the process of establishing assumptions and implementation decisions, the Commission also identified areas of likely cost savings.

When the Commission's recommendations are fully implemented, the proportion of Maryland students assigned to special education is expected to decrease by 50 percent or more.

When the Commission's recommendations are fully implemented, the proportion of Maryland students assigned to special education is expected to decrease by 50 percent or more. This estimate is based on evidence from the top-performing countries, where students in these countries assigned to what is called special education in the United States only represent about half of the corresponding proportion in the United States and the gap between the lowest and highest quintiles of performers is smaller. It is also supported by extensive research showing that the proportion of students assigned to special education in the United States who have specific clinical disabilities is less than half of the total students assigned to special education. Researchers have estimated that between 50% and 75% of struggling learners are unnecessarily placed in special education. Therefore, the Commission assumed a reduction by fiscal 2030 consistent with the lower end of this range, or 50%. This decline is linearly phased in beginning in fiscal 2022 at 5.6% each year. To calculate the dollar amount of savings associated with this expected decline in enrollment, the same per pupil amount that was developed for Element 4c in Policy Area 4 as the placeholder weight, \$13,619, was multiplied by the decline in enrollment. This figure represents the total funding that would be saved and amounts to \$83.2 million in fiscal 2022, rising to \$764.3 million by fiscal 2030.

Eliminating the National Board Stipends

The State and local jurisdictions currently provide annual matching stipends of up to \$4,000 each (for a total of \$8,000) for teachers who earn NBC and teach in schools with comprehensive needs. The average stipend paid by the State in fiscal 2018 to match local stipends was \$2,300. As the career ladder is phased in and new teachers are required to earn NBC and receive an increase in base salary, the funding currently provided for stipends (\$5.4 million annually) is assumed to be eliminated and rolled into the cost of implementing the career ladder. The State and local school systems will realize these savings.

Reduction in Professional Development Costs

As the recommendations in Policy Area 2 related to the reorganization of the school day and use of teachers' time are implemented, teachers will regularly engage in professional learning communities in their school buildings with their grade-level and subject-matter colleagues, and professional development will largely be integrated into the school day. Therefore, the approximately \$52.8 million that school systems currently spend to deliver professional development sessions budgeted in the central office is expected to decrease over time by 5% in year 2, increasing to 25% by year 5, and 75% by year 9. This results in annual savings of \$39.5 million beginning in fiscal 2029.

Reduction in Central Office Staffing

As the career ladder is implemented and teachers and principals take on greater roles and responsibilities, and more administrative decisions are made at the school level, it is anticipated that the number of central office staff needed will be reduced by 21%,

or about 460 positions, by year 8 with associated annual savings of approximately \$56 million beginning in fiscal 2028.

Class Size Increase

The Commission based its recommendations for advancing the quality of preK-12 education in Maryland on the proven practices of the best-performing school systems in the world. A common element of these systems is a well-prepared professional teaching faculty, appropriately compensated, with ample time for collaboration with other teachers and development of curricula and teaching strategies based on best practices. The Commission proposes that Maryland adopt this model and transform teaching into a high-status profession as top-performing systems have.

Once all of the Commission's recommendations are implemented, there will be a significant reduction in the teacher-student ratio (*i.e.*, fewer students for every teacher), meaning there will be many more teachers in the school and in and out of the classroom while another teacher is leading the class. This is how top-performing systems are organized and staffed, and as a result, they are able to have much larger class sizes (30-40 students, even higher in some countries) than in the United States where the national average is 26.

While some U.S. education research supports the premise that smaller class sizes are beneficial for student achievement up to third grade, essentially none shows that modest increases in class sizes in grade levels above third grade result in a negative impact on student performance. In Maryland, the average class size in the 2016-2017 school year was 20.5, well below the U.S. average.

As the State adds substantial numbers of new teachers in schools in the coming decade, which will allow school systems across the State to redesign the way they deploy teachers so that students that need the most help get it and teachers have the time to work with their colleagues to improve their practice, a modest adjustment in the average class size may be possible. For every one student increase in class size excluding K-3 classes, the estimated cost savings is \$118 million statewide. This savings has not been factored into the total cost estimate but could be realized by school systems as the Commission's recommendations are fully implemented.

Funding Priorities for the 2019 Legislative Session

In a series of day-long meetings in December 2018, the Commission finalized its policy recommendations and their estimated total cost. With these decisions completed, the work to determine the distribution of the costs/additional funding between the State and local jurisdictions can now begin. However, the amount of time necessary to make informed and thoughtful decisions about complex formulas means that this work cannot be completed in time for action in the 2019 legislative session. As the Presiding Officers of the General Assembly indicated in correspondence to the Commission dated December 18, 2018, even if the Commission had included funding formula recommendations in this report, it would be very difficult for the legislature to address

Once all of the Commission's recommendations are implemented, there will be a significant reduction in the teacher-student ratio, meaning there will be many more teachers in the school and in and out of the classroom while another teacher is leading the class.

The Commission believes firmly that, if its recommendations are implemented faithfully, the State will have an education system comparable to the best systems in the world.

both the Commission's major policy recommendations and the distribution of their costs between the State and local jurisdictions during the 2019 session. As a result, the Presiding Officers have asked that the Commission be extended to December 1, 2019, in order for it to make recommendations on fully developed funding formulas and distribution of costs.

While work remains for the Commission in 2019, the bulk of the Commission's work has been completed and includes a set of far reaching policy and total funding recommendations. The Commission believes firmly that, if its recommendations are implemented faithfully, the State will have an education system comparable to the best systems in the world.

There is much that can be accomplished in the 2019 session despite the continuation of the Commission's work. During the session, the Commission recommends that the Governor and General Assembly adopt a policy blueprint that outlines the key policy areas, recommendations, and goals proposed by the Commission. The Commission has identified total costs of \$480 million for fiscal 2020 and \$1.5 billion for fiscal 2021 to implement the recommendations. As a down payment on implementing the Commission's recommendations, the Commission recommends \$325 million in State funding for identified priorities in fiscal 2020. As shown in Exhibit 5.3, the priorities include additional funding for full-day prekindergarten for four-year-olds; first-year funding for the new concentration of poverty school grants; transitional supplemental instruction support to help students in the early grades who have fallen behind to get back on track; the State share of a 3% increase in teacher salaries to begin to raise salaries to levels comparable to benchmark states (Massachusetts and New Jersey); and additional special education funding as part of a three-year placeholder plan to increase special education funding until the study required by Chapter 361 of 2018 is completed.

Exhibit 5.3: Fiscal 2020 Funding Priorities

(\$ in millions)

Program	State Costs	Use of Funding
Expand full-day pre-K for 4-year-olds	\$29.0	Expand full-day pre-K funding formula to include all 4-year-olds being served in full-day setting by public school systems
Fund seed grants for teacher collaboratives	\$2.5	Voluntary collaboratives of school systems, teacher preparation institutions, and others to implement higher teacher standards
Teacher salary increase	\$75.0	State share of 3% increase – require local match
Begin Transitional Supplemental Instruction	\$23.0	State share (roughly half) of year 0 estimated cost
Begin Concentration of Poverty grants	\$55.0	Fund community school coordinator and health service practitioner for schools with 80% or more concentration of poverty
Increase health/behavioral health funding	\$2.0	Fund local education agencies mental/behavioral health coordinators
Special education placeholder weight	\$137.5	State share (roughly half) of year 0 recommended funding – about 30% of recommended total State increase
Oversight board/training/public outreach	\$1.0	Start-up funding for the oversight board and for training/outreach
Total	\$325.0	

Notes: 2019 legislation should also extend declining enrollment grants and full-day pre-K formula through fiscal 2021.

The Commission also recommends that, in the 2019 session, \$750 million in additional funding above what is otherwise required by the statutory formulas should be required to be included in the fiscal 2021 State budget to implement the Commission's recommendations in fiscal 2021. This will ensure that the State funding will be available to fund the State's share of the categorical programs and funding formulas that will be finalized by the Commission in fall 2019. These funds could be set aside for fiscal 2021 in the Commission on Innovation and Excellence in Education Fund that was created in 2018, with the use and distribution of the funds to be determined in the 2020 session.

Remaining Work and Next Steps for the Commission

With the total estimated cost of implementing the Commission's policy recommendations finalized, the Commission must now determine the distribution of the costs between the State and local jurisdictions. The Presiding Officers of the General Assembly have asked the chair of the Commission to recommend membership of a small working group that will work with staff to develop recommendations for the Commission to consider in fall 2019.

The small working group and the Commission will be considering, among others, issues related to enrollment, wealth, equity, and local effort, as discussed further below. It also must determine how the costs will be incorporated into existing or new funding formulas (*e.g.*, foundation per pupil amount), and whether costs will be wealth equalized and shared between the State and local jurisdictions or will be distributed as categorical programs funded by the State. Commission staff and APA presented preliminary formula recommendations on the allocation of costs in December 2018; however, these figures must be further reviewed and finalized. The Commission was also asked to make a recommendation for the 2019 session on the appropriate regional inflationary index to be used in adjusting education aid formulas.

Education Aid Formulas: Regional Consumer Price Indices

The Budget Reconciliation and Financing Act (BRFA) of 2018 required the Commission to make recommendations on the appropriate inflationary indices to use in the education aid formulas for action in the 2019 legislative session. Two of the State education aid formulas use measures of regional consumer price indices (CPI) in the calculation: the Foundation Program formula and student transportation formula. The regional CPI is defined in statute as the consumer price index for all urban consumers for the Washington-Baltimore metropolitan area.

The foundation formula annually inflates the target per pupil funding amount by the lesser of the increase in (1) the implicit price deflator for State and local government expenditures for the second prior fiscal year; (2) the regional CPI for the second prior fiscal year; or (3) 5%. For the student transportation formula, the base grant is increased by the growth in the regional CPI for private transportation as of July of the preceding fiscal year, subject to the limitation that it cannot be less than 1% or more than 8%.

In 2018, the U.S. Department of Labor ceased publishing the Washington-Baltimore CPI and substituted separate indices for the Washington metro area and the Baltimore metro area. The Washington metro area includes Calvert, Charles, Frederick, Montgomery, and Prince George's counties in Maryland. The Baltimore metro area includes Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's counties. The combined Washington-Baltimore CPI was reported in odd-numbered months. The new Washington metro CPI is also reported in odd-numbered months and the Baltimore metro CPI is reported in even-numbered months.

The BRFA of 2018 required the Departments of Legislative Services, Budget and Management, and Education to jointly determine the appropriate regional CPI to replace the discontinued combined Washington-Baltimore index for fiscal 2020 funding. The departments agreed it would be best to use the Washington metro CPI for fiscal 2020 for several reasons. First, the student transportation formula requires the use of the index for July, and only the Washington metro CPI reports data for odd-numbered months. In addition, based on an analysis of the data shown in Exhibit 5.4, the Washington index more closely tracks the historical growth of the combined Washington-Baltimore index.

Consistent with the joint determination made by the departments for fiscal 2020, the Commission recommends continued use of the Washington metro CPI measure for fiscal years after fiscal 2020 for the foundation formula and the student transportation formula.

Exhibit 5.4: Regional Consumer Price Index:
Urban Consumer – All Items

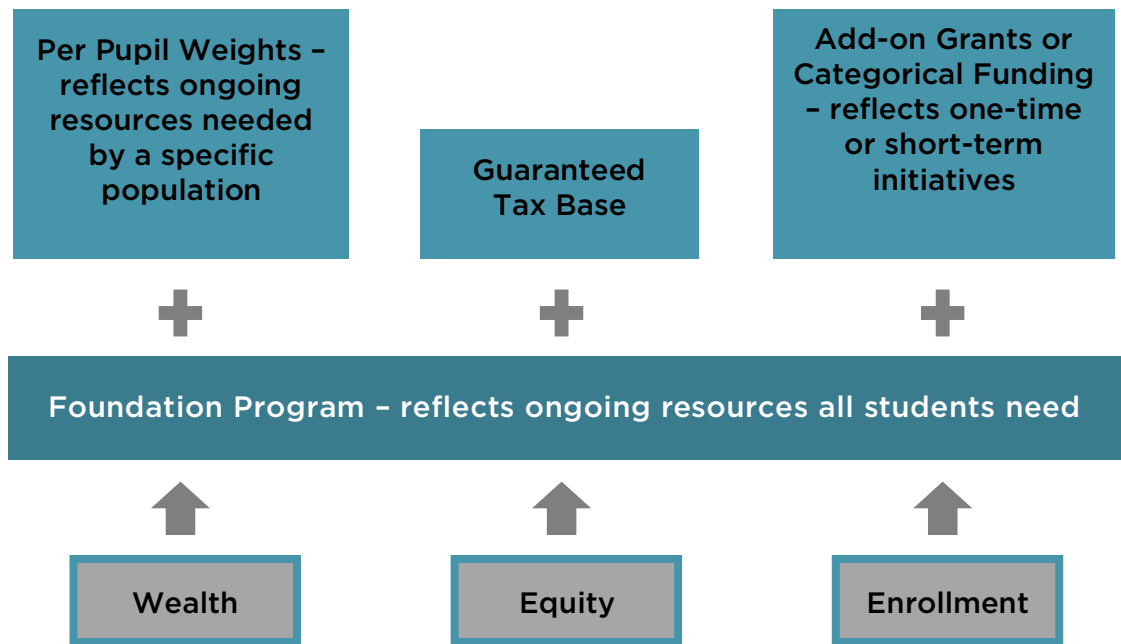
FY	Washington-Baltimore	% Change	Washington	% Change	Baltimore	% Change
2000	105.7		170.5		163.5	
2001	109.1	3.2%	176.0	3.3%	168.3	2.9%
2002	111.5	2.2%	180.9	2.7%	170.2	1.2%
2003	114.6	2.8%	186.5	3.1%	173.5	1.9%
2004	117.5	2.5%	191.5	2.7%	177.2	2.1%
2005	121.6	3.5%	198.3	3.5%	183.4	3.5%
2006	126.5	4.0%	205.6	3.7%	192.3	4.9%
2007	130.8	3.4%	212.4	3.3%	199.6	3.8%
2008	136.4	4.2%	220.3	3.7%	210.8	5.6%
2009	139.7	2.4%	224.9	2.1%	217.7	3.3%
2010	141.2	1.1%	227.4	1.1%	220.0	1.1%
2011	144.3	2.1%	232.5	2.2%	224.2	1.9%
2012	148.6	3.0%	239.8	3.1%	229.9	2.5%
2013	151.2	1.8%	244.0	1.8%	234.0	1.8%
2014	153.8	1.7%	248.2	1.7%	238.3	1.8%
2015	155.0	0.8%	250.0	0.7%	240.3	0.9%
2016	156.2	0.8%	252.2	0.9%	241.7	0.6%
2017	158.1	1.2%	254.5	0.9%	246.4	1.9%
2018	N/A		258.9	1.7%	251.1	1.9%

Note: Fiscal year figure reflects an average of the monthly data for each year.

Source: Bureau of Labor Statistics, U.S. Department of Labor

Funding Formula Decisions to Make in 2019

In order to develop the education aid formulas that are used to calculate the State and local funding requirements for public schools in Maryland, multiple decision points exist. The graphic below represents the larger decision points, each of which has its own subset of decision points. Below is a discussion of some of those decision points, but it is not an all-inclusive list. Several of the decisions also interrelate to each other.



Determining Local Wealth

Wealth is the formula that incorporates a county's property base and net taxable income in order to develop a measure of a county's wealth in relation to the wealth of other counties in the State. This, in turn, results in how much of a particular formula the State is responsible for and how much is the responsibility of the local governing body, depending on whether the formula has a floor. Particular questions related to calculating wealth include:

- Of the total local wealth amount, what proportion should be property wealth and what proportion should be income wealth?
- Should income wealth be measured as of September 1 or November 1 to coincide with the deadline to file for a federal income tax extension?
- Should an adjustment for tax increment financing districts be incorporated into the wealth calculation or remain as an add-on grant as it is in current law?
- Because wealth is calculated on a per pupil basis, should the enrollment count used to calculate wealth be the same as the count used in the foundation

formula or something different? (as discussed below under “Counting Enrollment,” this relates to the rolling three-year average that is currently being used to calculate the foundation formula if it is higher than the most recent September 30 count)

- With the expansion of prekindergarten and the recommended enrollment-based funding formula, should these students be included in the wealth per pupil calculation?

Equitable Funding

Funding equity is a concept that goes hand in hand with funding adequacy. It aims to distribute State funds so that each child has a substantially similar opportunity to meet performance standards regardless of where they live. Among the issues to be decided related to equity are:

- Should the funding floors (*i.e.*, the requirement that, regardless of a county’s wealth, the State provides a minimum amount of funding) for the foundation, compensatory education, English learner, and special education programs be eliminated?
- Should local jurisdictions be required to provide their share of the funding for compensatory education, English learner, and special education programs? What about the new concentration of poverty formula?
- What index should be used to adjust for regional cost differences: the current geographic cost of education index (a formula that accounts for the additional cost that some geographic locations bear in providing an education where the State pays both the State and the local share) or the comparable wage index? Should the index be used to adjust for below-average costs as well as above-average costs?
- Should maintenance of effort, the law that dictates the minimum amount a county must provide to the school system from year to year, phase in the new costs for implementing the policies recommended by the Commission and include prekindergarten students in its calculation?
- If the Commission determines that the local governments will be required to fund the local share of targeted student formulas, should that amount also be included in the maintenance of effort calculation above?
- Should the guaranteed tax base program, which provides additional funding for low-wealth counties making an above-average effort in funding education, be continued or perhaps expanded?

Counting Enrollment

Enrollment is used not only as part of the per pupil wealth calculation but also in determining the amount of funding to be provided for the foundation program and for each of the per pupil weights. The following are some questions related to enrollment:

- In order to dampen the impact of declining enrollment in a county, should the enrollment count permanently be changed to be the “greater of” (1) the average of the prior three years or (2) the most recent September 30 enrollment count?
- Should prekindergarten students (three- and four-year-olds) be included?

Foundation Program

The Commission will need to determine the per pupil foundation amount to be used in the foundation formula as well as the phase-in schedule. To that end, the policy elements and costs that will be included in the foundation formula will need to be finalized. Commission staff and APA presented preliminary allocations and per pupil foundation amounts to the Commission in December 2018 for modeling purposes.

Per Pupil Weights for Targeted Formulas

Once a per pupil foundation amount is finalized, then weights must be finalized to provide the additional resources needed to implement the recommendations of the Commission for compensatory education, English Learners, special education, and the new concentration of poverty formula.

Prekindergarten

The Commission preliminarily recommended that funding for the expansion of prekindergarten should be determined by a separate formula based on three- and four-year-old enrollment in public full-day prekindergarten. Such a formula must still be developed with numerous other decision points to be addressed related to wealth, equity, and local effort.

Add-on and Categorical Grants

For each of the various recommendations of the Commission that have a cost and are not incorporated into the foundation or the weights, a determination must be made as to whether the cost is borne entirely by the State (categorical) or shared with the local governments as an add-on grant. Potential examples include funding for students who are college and career ready (CCR) to pursue post-CCR pathways and career counseling.

Individual Statements

Individual Statement of Chester E. Finn, Jr.

The Commission is pushing Maryland in a necessary and truly exciting direction with huge potential for a brighter, more prosperous and more equitable future. That is why I voted to support the Commission's final report. But I did so with several serious reservations and worries, beginning with the fact that every vested interest in the state will oppose changes of this magnitude, while clinging to the bits that advance their own interests. What Maryland needs is a "grand bargain" that includes changes for all, gains for all and sacrifices by all, but that's going to be a huge challenge for policymakers. If they're able to pull it off at the policy level, then implementation and accountability will be even greater challenges. I'm not confident that all this can get done in a state with a long history of putting adult interests ahead of children's, parents' and taxpayers'.

- Children and parents should be especially troubled—as I am—by the Commission's *refusal* to endorse or recommend any form of school choice, whether within and between districts, to charter schools, or to private and alternative schools. It could barely agree to recommend that a portion of the many additional dollars it is recommending should "follow" students to the schools they actually attend—and that is going to be fought bitterly by district interests. The many forces of "local control" in Maryland relentlessly insist on district-level control of everything, and are loath to devolve any real authority or resources to the building level, much less to families. It is no coincidence that, for example, Maryland has America's worst charter law! The state's charters beseeched the Commission to give them a pat on the back and ensure that they partake in full of all its recommendations but all that appears in the Interim report is a very subtle statement that when we say "public schools" we mean *all* public schools. That is intended to include charters (and other non-traditional forms of public school) but few will notice.
- Taxpayers should be especially troubled—as I am—by the Commission's reluctance to make significant financial trade-offs, taking advantage of the many improvements it's recommending and the huge additional expenditures sought for those improvements to recoup the off-setting savings that the improvements would enable. The most obvious example is class size. The Commission is proposing a vast increase in Maryland's corps of professional teachers, a big reduction in the number of lessons that teachers must handle each day, and additional changes to the state's education program that will boost student achievement from the earliest years and across the board. Our consultants made clear that the "world-class" education systems we seek to emulate are able to afford those worthy improvements—with no harm to children—by placing more students in most classrooms. Maryland's current average class size is 20.5 students. Once the Commission's other recommendations are properly implemented, that number could easily rise to 25—and the estimated savings to state/local education budgets would be approximately half a billion dollars (in

year 10). That's a trade-off that should be made—and there are many others, such as reducing the huge number of non-teaching personnel employed by the state's public schools. I'm ashamed by the Commission's blindness to taxpayer concerns.

- Maryland's education governance system needs a total overhaul. The Commission hints at that by stating that, before it concludes its decade-long work, the proposed Oversight Board should make recommendations in that realm. Bravo. But a decade is a long time to wait. At present, education in Maryland is handicapped by (a) the disconnect between preK-12 and postsecondary education, (b) the disconnect between the providers of academic instruction and many providers of CTE experience (e.g. apprenticeships) and (c) an archaic, inequitable yet rigid "local control" structure that denies Marylanders a fair, uniform and high-quality education, that denies the state the authority to intervene in chronically failing schools and districts, that denies school leaders the authority to make essential decisions, and that denies families the right to place their children in the schools that will best serve them. If Maryland had a well-functioning governance system for PK-20 education, it wouldn't need the proposed Oversight Board!



January 23, 2019

Chairman William E. Kirwan:

As the representative of the Maryland State Education Association—representing more than 74,000 public school educators—I write to provide context for my vote in favor of the Commission on Innovation and Excellence in Education interim report.

In recent years, educators have withstood many attacks on public education from those who work to redirect taxpayer resources to privately operated schools. We have withstood efforts, especially from those who have never worked in a public school, to reduce our work to test scores and take away our autonomy over curricula and teaching methods. We have withstood flat funding while our voices in decision-making have been diminished.

We see the work of the Commission as a welcome new direction, one that focuses on how to empower educators to improve our public schools. Many of the strong recommendations in this report are exciting and reflect best practices from educators right here in Maryland, including:

- Closing gaps in salary between certificated educators and other high-skill industries, like architects and accountants, in order to boost demand to enter and stay in our professions;
- Hiring approximately 15,000 additional educators to improve working and learning conditions, create manageable caseloads, and provide students with the individualized instruction they deserve;
- Creating clear pathways to success for every single child, starting with accessible pre-kindergarten for three- and four-year-olds through high school when more students will have access to meaningful training in career and technical education;
- Focusing on equity by prioritizing schools in areas of concentrated poverty during phase-ins, as well as a significant scaling up of the community school model; and
- Establishing more independent and effective accountability through the creation of the new oversight board, an entity that will hold districts accountable for implementing these important strategies.

Of course, these ideas are merely that without building and sustaining a culture of respect and trust among the state, counties, districts, and educators. There is still no assurance that the lack of fidelity to the Thornton funding formula—a large reason why our schools are now underfunded by \$2.9 billion annually—will not happen again. Accountability is a two-way street: just as educators and districts are held accountable for implementing these recommendations, counties and the state must be held accountable for providing the funding to help improve our schools. Unfortunately, meaningful language to ensure that adequate funding is a prerequisite of these recommendations is not included in Policy Area 5.

Our most urgent concern is the Commission's delayed timeline in addressing the billions of dollars in annual underfunding will continue to hold back our students and their schools. With this in mind, Maryland educators strongly support the Commission's request to the legislature that \$325 million be dedicated to initial implementation in FY2020 and at least another \$750 million be required in the FY2021 budget so that we do not fall behind the current implementation schedule.

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Executive Director

We have several other concerns, many of which are linked to a lack of respect for the professional autonomy of our highly-trained educators:

- The report does nothing to address the more than 24,000 educational support professionals in our schools, who, despite dedicating their careers to our students just as much as other educators, do not earn a living wage;
- The recommendations call for a 10th grade college and career readiness assessment that could become an impediment to access to a rigorous academic program for students who do not perform well on the test, and make it more difficult for students deemed not ready for college to achieve industry certification in a career and technology education specialization;
- The recommendation to turn the Kindergarten Readiness Assessment into a census test does not address the very reasons the legislature changed it to a sampling test, especially in the lack of language stipulating a significant role for kindergarten teachers to create a more effective assessment; and
- The Commission recommends requiring all teachers to achieve National Board Certification—while diminishing the value of a master’s degree or equivalency—despite the fact that this process has never been applied to an entire system or state’s workforce. There will be significant, possibly insurmountable challenges in providing the necessary support needed to achieve NBC to more than 70,000 teachers by 2030 and could fail to adequately address the professional development of individual teachers who may need more significant improvement in content than in pedagogy.

Thank you for the opportunity to speak on behalf of Maryland educators and serve as an advocate for their hundreds of thousands of students.

Sincerely,

A handwritten signature in black ink, appearing to read "David E. Helfman", with a long, sweeping horizontal line extending from the end of the name.

David E. Helfman

Statement of Kalman R. Hettelman

The Commission and staff have worked long, hard and extraordinarily well, and I am proud to support this report. Its overall recommendations are big, bold and commendable. But it has one shortcoming that I believe should be further understood and addressed.

This shortcoming was almost inevitable given the contentious politics of K-12 policy reform and adequate funding to enable all students to achieve high standards. From day one, the Commission has had to try to reconcile our basic mandate to recommend “Adequacy” in funding with the realpolitik of “Affordability.” Our effort has been all-out and civil, and Commissioners have made compromises to try to achieve the right balance. Still, I believe that in our recommendations so far, full Adequacy has been compromised.

The Commission has openly cited Affordability as a reason for reducing policy recommendations and slowing down their phase-in. This reflects the reality of the current political environment in Maryland in which we are up against limited revenues and limited prospects for tax increases to pay for full Adequacy.

Moreover, there is another political dynamic that affects the balance between Adequacy and Affordability that is less visible and understood: It is the extent to which the Commission’s big and bold vision *for the future* – as commendable as it is – has minimized the need for adequate instructional interventions for struggling learners in the *here and now*. The Commission report, in my view, under-estimates the extent to which such interventions will be necessary during the decade or more that will it will take to fully implement the Commission’s far-reaching vision and plan.

We don’t in fact know if all of the vision and plan will come to pass: if it will be enacted into law, adequately funded, well implemented, and achieve the intended outcomes. We are right to aspire to achieve the vision, and we must do everything we can to ensure the necessary political action and educational accountability. But in reality, we know that not everything will go as desired. Yet, the Commission report does not sufficiently take this uncertainty into account. It does not provide what could be called an Adequacy safety net for students who will need it the most.

Most conspicuously, the Commission’s recommendations provide little direct additional instructional assistance for the 60 percent of all Maryland students who are now below proficiency in reading and math and who are disproportionately poor and of color. The Commission commendably recommends a transitional program for interventions for struggling readers in grades K-3; however, while this program is a major step forward, it is limited in time and not adequately funded based on the best available evidence. Moreover, there is very little funding for instructional interventions for struggling learners in grades 4-12. The Commission’s theory is that the whole big and bold package will virtually eliminate over time the need for targeted interventions for struggling learners in all grades. This, however, seems a leap of faith (and way to cut cost estimates) that will place many students at great risk of failure.

In Adequacy studies, funding for such interventions has historically been addressed through the Compensatory Education weight. But the Compensatory Weight we have adopted – particularly to pay for a basic system of tiered instructional interventions for struggling learners – is

significantly below what is required based on extensive evidence on such interventions. (The Commission's worthy addition of a Concentrated Poverty program is not even a partial substitute. By its definition and funding structure, the Concentrated Poverty program is intended to supplement not reduce funding for the Base and weights.)

One measure of the extent to which the report does not provide for full Adequacy is the total of the Commission's estimated cost increases through FY 2030: \$3.8b. This is a large sum but roughly only an annual increase of less than 3 percent per year above current preK-12 spending. Further the \$3.8b increase pales in the light of the widely accepted Adequacy gap of \$2.9b that existed when the Commission began work over two years ago. As much \$2b of our estimated costs of \$3.8b is to fund increases in teachers' salaries which were not included in the \$2.9b Adequacy gap; so, the \$3.8b does not seem likely to fully fill in the \$2.9b gap which has grown even higher. (This picture is not entirely clear since the Commission has not completed consideration of the Base.)

I hope my concerns are not taken out of context. I want to underscore my admiration for my colleagues. The Commission made decisions that it thought were in the overall best interests of our students and state. And perhaps its Affordability perspective will turn out to be politically strategic and smart.

But we have no way of knowing. What we do know is Affordability has played a significant role in our recommendations to date. Adequacy advocates in the community are considering legal action in response to what they regard as our less-than-adequate recommendations.

We also know that it will never be politically easy to obtain Adequate educational opportunity for those who need it the most, especially children who are poor and of color. But the good news is that a new battle over Adequacy has begun, and the Commission has mightily advanced that cause.

Statement of Leslie R. Pellegrino



Association of School Business Officials, Maryland & DC
1200-C Agora Drive, Suite 241
Bel Air, MD 21014

January 23, 2019

Commission on Innovation and Excellence in Education
c/o Office of Policy Analysis
Department of Legislative Services
Legislative Services Building
90 State Circle
Annapolis, MD 21401

Dr. Kirwan and Fellow Commission Members:

Please find this letter as formal response to the Commission on Innovation and Excellence in Education 2019 Interim Report. In my capacity on the commission I represent Maryland/DC Association of School Business Officials (ASBO) which represents the school business officials including the local Chief Financial Officers in the Maryland Local Education Agencies (LEA).

We applaud the Commission on the efforts these past two years and the bold steps being recommended for education change in the State of Maryland. Maryland has a great education foundation and we support the Commission's desire to make Maryland a competitive world class system. This is what's best for the children of Maryland and will help Maryland thrive economically in the decades to come.

We also support the positions listed in Joy Schafer, the Maryland Association of Board of Education (MABE) representative's letter submitted in response to the 2019 interim report.

Specifically, we would like to expand on the concerns around the School Finance and Accountability recommendations in the Governance and Accountability section of the interim report.

First, Element 5e allows the newly established Oversight Board to withhold no less than 25 percent of new funds during the initial funding of implementation of the recommendations. This withholding of new funds can greatly disrupt the planning and budgeting of funds and the ultimate delivery of services to our students, including the students of highest needs. To withhold funds could affect hiring of high quality staff and the deployment of new programs and initiatives. We agree school systems need to have clear and effective strategies to implement the recommendations of the Commission but feel there

should be other means of enforcing the implementation goals prior to the withholding of funds. Our current Maryland law allows for the Maryland State Department of Education (MSDE) to withhold funds from any school system for failure of implementing the requirements of MSDE. We feel this is already a strong accountability tool and there is not a need for an additional entity to have the same control.

Secondly, we have strong concerns around the specific recommendation in Element 5f which requires “not less than 75 percent of enrollment-based formula funds allocated to school systems or schools on the basis of the needs of students enrolled in the school will flow down to the school for use by the school to educate the children in that school”. We agree with the intention of this recommendation but believe the execution of this recommendation will be complex. For instance, to assume an average spend on students with disabilities per school is inaccurate. Special Education students and their need for specialized services greatly vary. A student at one school may only need minor interventions and services, whereas a student at another school may require intensive, academic, medical and behavioral supports. To assume, or require, that a specific average amount go to each of these schools is ineffective. We recommend a broader application of this recommendation as it develops into law allowing review of spending at a LEA level rather than an individual school level. We also recommend reviewing the financial accountability already required by the Every Student Succeeds Act to see if this accountability can meet the intent of the Commission Element 5f recommendation without the additional administrative and bureaucratic burden.

We appreciate having membership on this very important commission and look forward to the continued work in 2019 on the funding formulas which are the basis for equitable distribution of the resources needed to implement the Commission recommendations. We thank the Commission for allowing us to submit these comments in response to the 2019 interim report recommendations, specifically Elements 5e and 5f.

Respectfully,

Leslie Pellegrino

Leslie Pellegrino, CPA

Cc: Jeff LaPorta, Executive Director, MD/DC ASBO



Karen B. Salmon, Ph.D.
State Superintendent of Schools

TO: Brit Kirwan, Ph.D.

FROM: Karen B. Salmon, Ph.D. *KBS*

DATE: January 22, 2019

SUBJECT: Explanation of Vote

On January 18, 2019 the Kirwan Commission voted on the 2019 Interim Report. I voted in favor of the report, however, I did so with the understanding that I could qualify that “yes” vote by detailing my dissent on a particular policy section of the report.

I do not agree with Policy #5, Governance & Accountability, and do not support the recommendations contained therein. My reasons for this include the confidence that the Maryland State Board of Education is the logical statutory body to implement the Commission’s policy recommendations as well as the following points.

The State Board of Education has gone on record both in written and oral testimony that they are excited about the opportunity to have more accountability and authority over low performing schools in Maryland. Additionally, they believe as do I, that existing State structures of government offer the best mechanism to provide the governance and accountability that we all are seeking. Further, the Maryland State Department of Education (MSDE), under the oversight of the State Board, has the staff, expertise, and experience to ensure that the recommendations are implemented with fidelity both at MSDE and in each of Maryland’s 24 LEAs.

The Maryland State Board of Education has recently shown its commitment to holding local systems accountable. They have overturned several decisions of local boards, reversed local board decisions on charter school approvals and voted to withhold State funds from local systems when they have failed to comply with requirements of State law – once for failing to comply with the State’s audit requirements, and once for failing to comply with the State’s ESSA plan.

Therefore, rather than creating new government structures as suggested in the Kirwan Commission’s Policy #5, Governance and Accountability, we should let the existing structures of the Maryland State Board of Education administer the accountability structures. If additional metrics and accountability measures are needed they can be legislated to further empower the State Board of Education’s purview over the 24 Maryland School systems.

200 West Baltimore Street • Baltimore, MD 21201 • 410-767-0100 • 410-333-6442 TTY/TDD
MarylandPublicSchools.org



STATEMENT OF THE MARYLAND ASSOCIATION OF BOARDS OF EDUCATION

Submitted by MABE President C. Tolbert Rowe and Kirwan Commissioner Joy Schaefer

The Maryland Association of Boards of Education (MABE), representing all twenty-four local boards of education, appreciates this opportunity to include our statement in the 2019 Interim Report of the Commission on Innovation and Excellence in Education.

Through our representative on the Commission, MABE has participated fully in the Commission's work and supports its focus on significantly increasing the State's investment in a high performing, innovative statewide system of public schools. MABE supports advancing the goal of improving Maryland schools to ensure our students are equally as prepared as students educated in the world's highest performing school systems. MABE strongly supports the Commission's recommendations requiring equitable access to an excellent education for all students in all twenty-four school systems. However, MABE objects to specific recommendations regarding the governance, authority and accountability of local school systems, found in both the Governance and Accountability and the College and Career Ready Pathways policy areas.

Governance and Accountability

MABE strongly opposes the adoption of the recommendation for a new governance and compliance body to oversee implementation of the Commission's recommendations and subsequent legislation. Such an independent oversight body is neither necessary nor appropriate to coordinate, monitor, and evaluate implementation of the Commission's recommendations as these functions are already within the purview of the Maryland State Department of Education (MSDE) and the State Board.

We agree with the testimony of State Board President Justin Hartings given at the Commission's public hearing on November 29, 2018. He underscored the clarity of current law that provides the State Board with the authority and tools necessary to provide effective oversight and to enforce accountability in Maryland's education system. In lieu of a new government structure, he suggested that lawmakers clarify metrics and accountability measures and codify them in law and allow the "existing structures of State government, including the State Board of Education, bring that accountability to life," and to continue to be "accountable to the State's elected branches of government."

MABE urges the Commission to recognize that, as it relates to funding, accountability is a two-way street necessitating the provision of adequate, equitably available state and local funding. For the Commission's recommendations to succeed, they must garner shared commitments from the Governor, General Assembly, State Board, local governments and local school systems.

These issues of oversight, governance, and accountability extend to the Commission's recommendation for a separate, stand-alone Career Technology Education (CTE) committee that is outside of the purview of MSDE and the State Board. While MABE

supports a more robust and expanded CTE system, we oppose the establishment of this committee under the authority of the Governor's Workforce Development Board. Local school systems have employed an integrated approach to CTE, beginning in K-5, and including both academic preparation and exposure to and awareness of career paths and applications aligned to students' learning and experiences. As currently structured in the Commission's recommendations, the proposed CTE Committee and Standards Board are focused solely on high school instruction and opportunities, and more specifically on students in the 11th and 12th grades, which places governance, oversight and accountability squarely in workforce development. That CTE model is rooted in the past and ignores the growing need for greater flexibility for today's students to move more fluidly between coursework traditionally reserved for "college-bound" students only and those courses traditionally deemed appropriate for students who would pursue jobs and careers immediately upon high school graduation.

Finally, MABE is very concerned that the costs for supporting two governance entities that ultimately would result in siphoning away needed dollars from students and providing direct services to them. The estimated annual costs for the oversight board are \$2 million, and \$470,400 for the CTE and Skills Standards Advisory committees.

School Finance and Accountability

MABE strongly opposes the recommendations regarding the release of specific percentages of funding , i.e., 25% of "new" funding be subject to approval and release by an "independent oversight board," and 75% of enrollment-based funding "flow down to the school for use by the school," also referred to as "the money follows the student."

The resulting accounting complexities would increase the administrative burden on school systems exponentially. For example, revenues and expenditures do not align as revenues come from prior year enrollment numbers and expenditures are based on current year enrollments. Other questions include: how will schools and systems account for shared costs, e.g., itinerant social workers, transportation, or maintenance; how will variances in employee costs be considered, e.g., salaries for more senior teachers versus those with less experience, or the choices individual staff make regarding available benefits.

All twenty-four local systems welcome accountability. To ensure accountability in this area, while providing the flexibility needed to both meet individual student needs, MABE suggests the following to avoid an overly complex and expensive accounting system:

- Administer the concentrated poverty funding as a restricted grant in the same way that Title I dollars are distributed. Districts then could develop plans and track the funding in a similar manner.
- Create a spending threshold to compare spending at higher needs schools with other schools in the same district. Schools then would be compared based on school size, enrollment, and student needs. Provide guidance or requirements that support the intent of the recommendation that "money follow the student," when schools fall short of adequate spending.

Statement of Morgan Showalter



A Union of Professionals
AFT-Maryland

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md.aft.org

Marietta English
PRESIDENT

Kenya Campbell
SECRETARY-TREASURER

As the commissioner representing the American Federation of Teachers-Maryland/Baltimore Teachers Union to the Commission on Innovation and Excellence in Education, I have been hopeful and enthusiastic about our work since the commission began meeting in 2016. I am proud to engage with other commissioners in the challenging but, I believe, rewarding work of building consensus with a diverse array of education stakeholders to help forge policy recommendations that will radically improve public education in Maryland. I have been happy to provide, at every meeting, the perspective of someone who is in the classroom every day to describe the challenges facing our educators and students today. The commission's recommendations for the 2019 legislative session are sound and well-reasoned, and I am happy to urge the passage of these recommendations by the legislative body this term.

I do want to draw attention to a few issues, though, that I believe the legislature should flag and consider further as they review the recommendations of the commission. I have listed them below as concerns the I have about final decisions made by the commission.

Concerns about element 5e)

I understand and am not wholly unsympathetic to the rationale behind this element. After years of examining the question of how to best improve educational outcomes for Maryland's students, and doing the difficult work of building consensus over these policy recommendations, the commission had in-depth discussions regarding the best way to assure local school systems undertake good-faith efforts to take these recommendations to heart and adopt these policies.

However, the concern is that the commission's final decision to potentially withhold as much as 75% of what has been deemed "new funds" to districts that do not undertake commission recommendations as determined by the Oversight Board is overly punitive, and really targets not just local school systems, but the students attending those schools who have nothing to do with decisions made by local school administrators.

The definition of "new funds" here as any increase in state education formula funds over the prior school year is particularly troublesome. Under the formulas determined by the Thornton Commission and the Bridge to Excellence Act, a year-to-year increase in state aid to a school district can come through changes to any number of variables in the formula, including things like increased enrollment or inflation. By threatening to withhold these additional funds flowing from the Thornton funding formula, the Commission for Innovation and Excellence in Education is effectively calling for a potential cut—not just a withholding of "new funding"—for districts the Oversight Board deems failing to implement Kirwan recommendations. This is especially vexing in light of reports from DLS that there already exists for a number of districts an adequacy gap between what districts should have received if Thornton formulas were followed versus what they have actually received. This element recommendation threatens to make some of those gaps in adequacy funding larger, not smaller.

Concerns about element 5f)

Likewise, the intent behind the directive to have “funding follow the student” so that additional dollars will help students who may need supplemental resources is a noble one. Schools that do not have students who live in poverty, are English language learners, or have special needs should not receive the additional dollars from the state intended for those student populations.

However, I fear the implementation of this plan may have a number of unintended consequences. In a district like Baltimore City, where it is not unheard of for students to attend a number of different schools in a single given school year, what exactly does “money following the student” mean in this context? With budgeting decisions often being made at the school level, will there be regular student roll counts to determine what schools serving student populations get the weighted amounts? Will resources and services be moved from one school to another in the middle of the school year as well?

In addition, the consequences for special education students might be significant. As the commission acknowledges, until a new weight can be agreed upon that will accurately account for needed resources for special ed students, we are not certain how much funding should be given to meet the needs of various special education populations. In previous years, because public funds given to meet the needs of these students often falls short of what is actually needed in order for districts to provide these services, districts have had to use funds from other categories to meet these legal obligations to provide the requisite services to special needs students. If districts had to follow a very strict “money following the student” protocol as spelled out in this recommendation, special education students may not have their needs met.

Concerns about element 2g.6) The Career Ladder and National Board Certification

I flag this element for legislators to consider not because there is an objection to National Board Certification as a measure to determine ascension up the educator career pathway per se, but because I worry that this might exacerbate the problem of a teacher shortage in Baltimore City. Bonuses have been available to educators who achieve National Board Certification in Baltimore City, thanks to the collective bargaining agreement between City Schools and the Baltimore Teachers Union for over 8 years. Despite having incentives to work towards National Board Certification, only 80 teachers working in Baltimore City Schools have National Board Certification. Obviously, those numbers will change if National Board Certification becomes the primary method by which educators will ascend the career ladder, but it is worrisome that so few educators right now have seen the incentive worth the effort needed to achieve National Board Certification.

Sincerely,



Morgan Showalter

AFT-Maryland/Baltimore Teachers Union Representative
Commission on Innovation and Excellence in Education

Statement from Dr. David Steiner.

The Commission, under the outstanding leadership of Dr. Kirwan, has produced a comprehensive education reform agenda that I am honored to support.

No individual commissioner should expect to have every preference met. In my case, I most especially join my colleague Dr. Chester Finn in his disappointment that the Commission has not chosen to support the expansion of parental school choice and commensurate academic accountability.

I am most concerned, however, by the multiple places in which the Commission's recommendations will depend on the courage to stick with the difficult decisions that - if our hopes are to be realized - must be made on behalf of our children. To take but two examples: we rightly seek to reward properly those who choose a teaching career. Will we have the will to ensure that only those who demonstrate truly effective teaching are endorsed, or will we lower our new standards for entry into the teaching profession at the first instance of serious resistance? We also seek a 10th-grade assessment as the gateway to an additional two years of study, oriented towards either a high-quality pre-collegiate or a professionally-recognized career and technical pathway. But will passing the new 10th-grade assessment truly signify that students are prepared to move forward? Or will, rather, the claims of adults and the status quo come first, with the resulting watering-down of the standard for success?

In short, Maryland will need sustained courage from collective leadership, and the on-going support from its citizens, if the Commission's critically important policy recommendations are to translate into the outstanding education system our children so deeply need and deserve.

The statement above is the writer's own and makes no claim to reflect the views of the MD State Board of Education, the Johns Hopkins Institute for Education Policy or the Johns Hopkins University.

William R.Valentine

**Commissioner, Commission on Innovation & Excellence in Education.
Representing rural counties on behalf of MACo**

January 19, 2019

Dr.Kirwan ; Md. Legislature

One January 18, the Commission was asked to vote to support our initial report. I found it necessary to abstain from that vote due to the lack of estimates for the cost of these proposals that will be shared with local governments . Local governments are a large funding partner in education, yet had just 2 representatives on the 25 member Commission. Many of our counties have very fragile balanced budgets. Adding millions of dollars of cost to the smaller counties would be devastating. In my home county, Allegany County, average teacher wage is over 160% of average household income. County mails approximately 38,000 tax bills at an average of \$1,000 per billing. Allegany County should not be required to pay the same wage as Montgomery County. Most counties already spend approximately 50% of their budget on education, while also helping fund law enforcement, health departments, social services, etc.

Much education spending has historically been set by local negotiation. Element 2 of Kirwan proposals negate local decisions and require all counties to raise their starting wage for teachers to \$60,000/year (150% of Allegany County's average household income) The Commission states in numerous areas of the report that poverty is a huge negative to education, yet increased property taxes to already struggling families would create greater hardships.

I have been honored to serve on the Commission, with so many fine, knowledgeable people. I agree fully with many of the proposals, but can not support creating greater financial problems for our counties. No discussion has been held on how to finance the proposals, only how to increase spending.

Statement of Senator Ronald N. Young

RONALD N. YOUNG
Legislative District 3
Frederick County

Education, Health, and
Environmental Affairs Committee



The Senate of Maryland
ANNAPOLIS, MARYLAND 21401

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January 23, 2019

Chair Dr. William Kirwan, Commission for Innovation and Excellence in Education:

The following excerpt is from a letter sent to me by an agriculture teacher in Frederick County. He indicated that several agriculture teachers would be willing to work with me or members of the Kirwan Commission to amend Policy Group 3. Unfortunately, I received the letter too late to take any substantive action. He urged me to vote "no" on this section when the report moved to the Floor.

The letter, authored by Richard Stonebroker of Frederick High School indicated he thought the report was "good" but there were some areas that still needed improvement. He stated that,

As the current report stands, it will put CTE back to the 1970s. It is 2019 and we have already learned so much. Technology has advanced and so have our students- yet this report wants to send us back to 70's era instruction.

My biggest recommendation is that legislation not fund Policy Group 3 until it is reworked to reflect modern CTE direction. After looking at the list of members present for the commission, few had any background in CTE and it appears there was not much input from the CTE researchers, CTE professionals, or material on CTE.

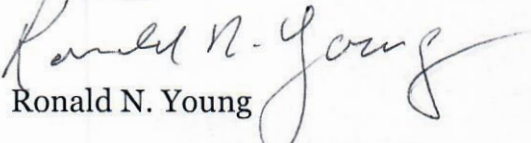
In particular, the portion of the report entitled "Working Group 3 - Career and College Readiness Pathways", which provides recommendations to "improve" Career and Technology Education (CTE), contains language which is not reflective of modern CTE and could, if acted upon, create severely negative impacts on how Agricultural Education is delivered in Maryland. In fact, the recommendations therein resemble trades and industry education as it appeared in the 1960s and 1970s Maryland. Moreover, the recommendations would push Agricultural Education into grades 11 and 12, and possibly into technical center magnet programs (which Frederick County/City have none), rather than in comprehensive high schools. Consequently, Agricultural Education would likely wither and, in some areas die, leaving major voids in student opportunity. Further, the language appears to suggest that students headed toward CTE programs might not be college bound, which is far from the truth for many. While we have students that pursue trades, a majority of our students go off to college to further their studies and education.

Let me be frank if this is passed the way it is currently written. CTE, and more importantly, Agricultural Education will disappear in Frederick County/City.

Agricultural Education is a holistic program that requires a longitudinal approach to delivery, which is not possible if it is confined to junior and senior year.

I pass this on for future consideration and would be willing to meet with a group of the teachers after the 2019 Session to discuss this further.

Sincerely,

A handwritten signature in cursive script that reads "Ronald N. Young". The signature is written in dark ink and is positioned above the printed name.

Ronald N. Young

District 3 – Frederick County

Appendices

COMMISSION ON INNOVATION AND EXCELLENCE IN EDUCATION

VOTE TALLY SHEET

Date: 1/18/2019

Recorded by: Erika Schisler

Original Vote or Reconsideration of Prior Vote (Circle One)

MOTION: ADOPT REPORT AS AMENDED

By: Kirwan

Seconded: Washington

FINAL ACTION

Favorable _____

Favorable with amendments ✓

Unfavorable _____

Favorable _____

Favorable with amendments ✓

Unfavorable _____

	Yea	Nay	Pass	Abstain	Absent
David R. Brinkley*	✓				
Robert L. Caret (<i>Nancy Shapiro</i>)	✓				
Karen Couch	✓				
Scott E. Dorsey					✓
Senator Bill Ferguson	✓				
Chester E. Finn	✓				
David E. Helfman	✓				
Kalman R. Hettleman	✓				
Delegate Adrienne A. Jones	✓				
Delegate Anne R. Kaiser	✓				
Senator Nancy J. King					✓
Elizabeth Ysla Leight	✓				
Delegate Maggie McIntosh	✓				
Leslie R. Pellegrino	✓				
Senator Paul G. Pinsky	✓				
Craig L. Rice (<i>Michael Sanderson</i>)				✓	
Karen B. Salmon	✓				
Joy Schaefer	✓				
Morgan Showalter	✓				
David M. Steiner	✓				
William (Bill) R. Valentine				✓	
Delegate Alonzo T. Washington	✓				
Margaret E. Williams	✓				
Senator Ronald N. Young	✓				
William E. Kirwan, Chair	✓				
TOTAL	21			2	2

*Abstain from funding priorities and next steps



MARYLAND GENERAL ASSEMBLY
STATE HOUSE
ANNAPOLIS, MARYLAND 21401-1991

December 18, 2018

Dr. William E. Kirwan
Chair, Maryland Commission on Innovation
and Excellence in Education
90 State Circle
Annapolis, Maryland 21401

Dear Dr. Kirwan:

We want to express our sincere thanks and appreciation for the very hard work that we know you, the Commission, and Commission staff have been doing over the past two years to develop policy and funding recommendations that will transform Maryland's education system into a world-class system and will allow Maryland and its citizens to successfully compete in the 21st century global economy. We are aware that the Commission is in the final stages of finalizing its policy recommendations and the estimated total cost to implement the policies over an implementation period.

We look forward to receiving the Commission's report in January 2019, including funding priorities for fiscal 2020 and a policy blueprint that could be outlined in legislation this session. With the time remaining before the Legislative Session begins, we understand that, while the Commission will make significant policy and funding recommendations in its 2018 report, it will not be able to complete the funding formulas that will distribute the increased education aid between the State and local jurisdictions. In truth, it would be very difficult for the General Assembly to complete work on both the policy framework of the Commission's recommendations and a funding formula distributing the costs between the state and the jurisdictions in a single 90 day session. We also understand that many of the policies represent a significantly different way of approaching the education system and will require time for the State and local school systems among others to develop implementation plans and training for educators and outreach to the public to convey the vision for the pre K-12 education system that the Commission is proposing.

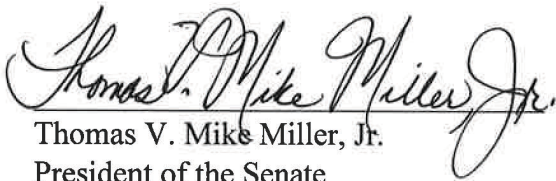
With the recent public statements from the Chief Executive on the Commission's work, it appears that we have more work to do to convince the Governor that these generational changes are worth undertaking. Given the breadth of the Commission's charge and the rigor and

thoroughness with which the Commission has addressed its charge, we understand that it is virtually impossible for the formulas to be completed in time for action during the 2019 Legislative Session. The work of the Commission is too important to rush through without something so critical as funding formulas that will ensure that the debate in the General Assembly is backed by the best data available. We believe that the Commission's recommendations have the potential to transform Maryland's pre K–12 education system into among the best in the world and provide our children with the opportunity to fulfill their greatest potential for themselves and for this State. We are committed to seeing it happen; quite frankly, we view it as our legacy to the State.


To that end, we would like the Commission to continue its work in 2019 to develop funding formulas that would implement the Commission's funding recommendations. Specifically, we ask that you recommend membership for a small working group to work with staff to review and develop formula recommendations to be considered by the full Commission in fall 2019.

Again, thank you for the time and energy that you and your fellow commissioners have devoted to the Commission's work. Like you, we believe it is well worth the effort – nothing is more important than the future for our children.

Sincerely,



Thomas V. Mike Miller, Jr.
President of the Senate



Michael E. Busch
Speaker of the House

Commission and Working Group Meeting Dates

Date	Full Commission	Working Group 1	Working Group 2	Working Group 3	CTE	Working Group 4
4/26/2018	✓	✓	✓	✓		✓
5/17/2018	✓	✓	✓	✓	✓	✓
5/29/2018					✓	
6/14/2018			✓			
6/21/2018				✓	✓	
6/28/2018	✓	✓		✓		✓
7/12/2018		✓			✓	
7/13/2018	✓		✓	✓		✓
7/25/2018		✓	✓			
7/26/2018				✓		
8/8/2018			✓			
8/9/2018						✓
8/15/2018	✓	✓	✓	✓		✓
8/23/2018	✓			✓		✓
9/5/2018	✓		✓			
9/14/2018			✓			
9/17/2018			✓			
9/19/2018		✓				
9/21/2018	✓			✓		✓
10/10/2018	✓					
10/16/2018			✓			
10/22/2018			✓			
10/26/2018				✓		
10/31/2018	✓					
11/14/2018	✓					
11/29/2018	✓					
12/6/2018	✓					
12/13/2018			✓			
12/18/2018	✓					
12/19/2018	✓					
1/18/2019	✓					
Total	16	7	13	10	4	8

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

April 26, 2018
9:30 a.m.-5:00 p.m.
120 House Office Building, Annapolis, Maryland

9:30 a.m. Chair's Opening Remarks

9:40 a.m. Review of Legislation Passed During the 2018 Legislative Session

- Erika Schissler and Kelsey Fung, Department of Legislative Services

10:15 a.m. Process for Developing Cost Estimates of Preliminary Recommendations

- Rachel Hise, Department of Legislative Services

11:00 a.m. Working Groups Convene

12:00 p.m. Lunch

Lunch Provided for Commissioners and Staff in Room 180

1:00 p.m. Working Groups Continue (*may work through lunch*)

4:00 p.m. Full Commission Reconvenes – Working Groups De-brief

5:00 p.m. Chair's Closing Remarks and Adjournment

Next Meeting: May 17, 2018, 9:30 a.m. to 5:00 p.m.

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

May 17, 2018
9:30 a.m.-5:00 p.m.
120 House Office Building, Annapolis, Maryland

9:30 a.m. Chair's Opening Remarks

9:35 a.m. Update on State Assessment System (PARCC, KRA, Praxis, and WIDA)

- Dr. Karen Salmon, State Superintendent of Schools
- Sarah Spross, Assistant Superintendent for Educator Certification and Program Approval

10:30 a.m. Review and Discuss Draft Elements for Policy Area 5 – Governance and Accountability

11:45 a.m. Break (*Working Groups may convene*)

12:00 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 170*)

12:30 p.m. Working Groups Convene (*may convene during lunch*) (see separate handout for room numbers)

12:30 p.m. Working Group 2 (Room 145) – Briefing on Career Ladder Frameworks in Top Systems – Marc Tucker and Betsy Brown Ruzzi, NCEE

2:00 p.m. CTE Subgroup (Room 180)

4:00 p.m. Full Commission Reconvenes (Room 120) – Working Groups De-brief

5:00 p.m. Chair's Closing Remarks and Adjournment

Next Meetings: Working Group 2: Thursday, June 14, 2018, 9:30 a.m.-2:00 p.m.
Location TBD

Full Commission and Working Groups 1, 3, and 4:
Thursday, June 28, 2018, 9:30 a.m.-5:00 p.m., Room 120 HOB

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

June 28, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

9:30 a.m. Chair's Opening Remarks

9:35 a.m. Equity and Education

- Dr. Ivory Toldson, Professor of Counseling Psychology, Howard University and CEO and President, Quality Education for Minorities

10:30 a.m. Health and Mental Health Services for School-age Children

- Nancy Lever, Co-Director, Center for School Mental Health, University of Maryland (UM) School of Medicine
- Dr. Larry Epp, Director of School Mental Health Services, Linkages to Learning Program, Family Services Inc.
- Dr. Patryce Toye, Incoming President and Joy Twesigye, President Elect, Maryland Assembly on School-Based Health Centers
- Bronwyn Mayden, Assistant Dean, UM School of Social Work and Executive Director of Promise Heights

11:30 a.m. Proposed Changes to Teacher Certification Assessments

- Dr. David Steiner, Maryland State Board of Education Teacher Preparation Subcommittee

12:00 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 170*)

12:30 p.m. Working Groups Convene (*may convene during lunch*) (see separate handout for room numbers)

Working Group 2 is not meeting this afternoon; group members are welcome to attend other working group meetings

4:00 p.m. Full Commission Reconvenes (Room 120) – Working Groups De-brief

5:00 p.m. Chair's Closing Remarks and Adjournment

Next Meetings:

Thursday, July 12, 2018: Working Group 1: 9:30 a.m.-3:30 p.m., Room 130;

CTE Subgroup: 9:00 a.m.-12:00 p.m., Room 120

Friday, July 13, 2018: Full Commission and Working Groups 2, 3, and 4: 9:30 a.m.-5:00 p.m., Room 120

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

July 13, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. Role of Concentrated Poverty and Race in Maryland Academic Outcomes**
- Bess Rose, Lead Researcher, Maryland Longitudinal Data System (MLDS) Center
 - Angela Henneberger, Research Director, MLDS Center
 - Ross Goldstein, Executive Director, MLDS Center
- 10:35 a.m. Discussion of Potential Recommendations for Element 4b Health and Mental Health Services for School-age Children**
- 11:05 a.m. Review and Discuss Draft Elements for Policy Area 5 – Governance and Accountability**
- 11:30 a.m. Update on HB 1415 of 2018 Implementation**
- Tiffany Clark, Deputy Director of Education Policy and Government Relations, Maryland State Department of Education
- 11:45 a.m. Working Group Status Update**
- 12:00 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 170*)**
- 12:30 p.m. Working Groups Convene (*may convene during lunch*) (see separate handout for room numbers)**
Working Group 1 is not meeting this afternoon; group members are welcome to attend other working group meetings
- 5:00 p.m. Adjournment (*The Commission will not reconvene; you are free to leave when your working group adjourns*)**

Next Meetings:

Working Group 1: July 25, 9:30 a.m.-3:30 p.m., Room 130

Working Group 2: July 25, 9:30 a.m.-2:00 p.m., Room 145

CTE Subgroup/Working Group 3: July 26, 9:00 a.m.-3:00 p.m., Room 120

Working Group 4: August 9?

Full Commission: August 15, 9:30a.m.-5:30 p.m., Room 120

August 23, 9:30a.m.-5:30 p.m., Room 120

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

August 15, 2018

10:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

10:30 a.m. Chair's Opening Remarks

10:35 a.m. Update: Role of Concentrated Poverty and Race in Maryland Academic Outcomes

- Bess Rose, Lead Researcher, Maryland Longitudinal Data System (MLDS) Center
- Angela Henneberger, Research Director, MLDS Center
- Ross Goldstein, Executive Director, MLDS Center

11:15 a.m. Discuss Policy Area 5 – Governance and Accountability

12:00 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 170*)

12:30 p.m. Working Groups Convene (*may convene during lunch*) (Working Group 1: Room 130, Working Group 2: Room 120, Working Group 3: Room 180, Working Group 4: Room 142)

5:00 p.m. Adjournment (*The Commission will not reconvene; you are free to leave when your working group adjourns*)

Next Meetings:

Full Commission: August 23, 9:30a.m.-5:30 p.m., Room 120

September 5, 9:30a.m.-5:30 p.m., Room 120

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

August 23, 2018

10:00 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

10:00 a.m. Chair's Opening Remarks

10:15 a.m. Working Group Reports on Elements of the Preliminary Policy Recommendations with Significant Fiscal Impact

- **Working Group 1: Expand Early Childhood Education**
Craig L. Rice, Moderator
- **Working Group 2: High Quality and Diverse Teachers and School Leaders**
Senator Paul G. Pinsky, Moderator

12:15 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 140*)

1:00 p.m. Working Group Reports Continued

- **Working Group 3: College and Career Readiness Pathways (incorporates CTE Subgroup recommendations)**
Chester E. Finn, Moderator
Karen B. Salmon and Scott E. Dorsey, CTE Subgroup Co-Moderators

2:00 p.m. Working Groups 3 and 4 Convene
(The Commission will not reconvene; you are free to leave when your working group adjourns)

Next Meeting: September 5, 10:00a.m.-5:00 p.m., Room 120 HOB (Working Group 2 will meet following the full Commission meeting)

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

September 5, 2018

10:00 a.m.- 4:00 p.m.

120 House Office Building, Annapolis, Maryland

- 10:00 a.m. Chair's Opening Remarks**
- 10:15 a.m. Working Group Reports on Elements of the Preliminary Policy Recommendations with Significant Fiscal Impact**
- **Working Group 4:** More Resources for At-risk Students
Joy Schaefer, Moderator
 - **Working Group 3 and 4:** Element 3c. Transitional Tutoring for Struggling Learners
Joy Schaefer, Working Group 4 Moderator
- 12:15 p.m. Lunch (*Lunch Provided for Commissioners and Staff in Room 145*)**
- 1:00 p.m. Maryland Commission on the School-to-Prison Pipeline and Restorative Practices**
- Barbara Sugarman Grochal, Chair, University of Maryland Francis King Carey School of Law, Center for Dispute Resolution
 - Rhonda Richetta, Member, Principal, City Springs Elementary School
- 1:45 p.m. Maryland Association of Community Colleges**
- Dr. Charlene Dukes, President, Prince George's Community College
 - Dr. Ray Hoy, President, Wor-Wic Community College
- 2:15 p.m. Discuss Proposed Substantive Changes to Working Groups 1 and 2 Policy Recommendations**
- 4:00 p.m. Commission Adjournment / Working Group 2 Convenes (*Room 120 HOB*)**

Next Meeting: Friday, September 21, 9:30 a.m. – 12:30 p.m. followed by lunch for Commissioners and staff

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

September 21, 2018

9:30 a.m.-12:30 p.m.

120 House Office Building, Annapolis, Maryland

- 9:30 a.m. Chair's Opening Remarks**
- 9:40 a.m. Working Group Reports on *Revised* Elements of the Preliminary Policy Recommendations with Significant Fiscal Impact**
- **Working Group 1:** Early Childhood Education
Craig Rice, Moderator
 - **Working Group 2:** High Quality and Diverse Teachers and Leaders
Karen Couch, Acting Moderator
- 11:30 a.m. Review *Proposed* Substantive Changes to Working Group 3 and 4 Recommendations**
- **Working Group 3:** College and Career Readiness (including Element 3c. Transitional Tutoring for Struggling Learners)
Chester Finn, Moderator
 - **Working Group 4:** More Resources for At-risk Students
Joy Schaefer, Moderator
- 12:30 p.m. Closing Remarks and Adjournment (*Lunch Provided for Commissioners in Room 170*)**
- 12:30 p.m. Working Groups 3 and 4 Convene (Room 180)**

Next Meetings: Wednesday, October 10, 9:30 a.m. – 5:00 p.m.

Wednesday, October 31, 9:30 a.m. – 5:00 p.m.

(Working Group 2 Additional Meeting(s) TBA)

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

October 10, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. Working Group Reports on *Revised* Elements of the Preliminary Policy Recommendations with Significant Fiscal Impact**
- **Working Group 3: College and Career Readiness (including Element 3c. Transitional Tutoring for Struggling Learners)**
Chester Finn, Moderator
 - **Working Group 4: More Resources for At-risk Students**
Joy Schaefer, Moderator
- 11:45 a.m. Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 12:30 p.m. Governance and Accountability Panel**
- Jason Willis, West Ed
 - Nancy Grasmick, Former State Superintendent
 - David Hornbeck, Former State Superintendent
 - Marc Tucker, NCEE
- 2:00 p.m. Council on the Advancement of School-Based Health Centers**
- Mark Luckner, Executive Director, Maryland Community Health Resources Commission and Staff to the Council
- 2:40 p.m. Review Draft Element 4b. School Based Health and Behavioral Health Services**
- Victoria Gruber, Executive Director, Department of Legislative Services
- 3:00 p.m. School Finance Primer**
- Erika Schissler, Department of Legislative Services
- 5:00 p.m. Closing Remarks and Adjournment**

Next Meetings: *Wednesday, October 31, 9:30 a.m. – 5:00 p.m.*

Wednesday, November 14, 9:30 a.m. – 5:00 p.m.

Working Group 2: *Tuesday October 16, 10:00 a.m. – 4:00 p.m. (Room 130 House Office Building)*

Monday October 22, 10:00 a.m. – 4:00 p.m. (Room 120 House Office Building)

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

October 31, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

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- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. MSDE High School Graduation Task Force**
- Carol Williamson, Deputy State Superintendent and Co-Chair of the Task Force
 - Dara Shaw, Director of Research and Co-Chair of Task Force
- 10:30 a.m. Working Group Reports on *Revised* Elements of the Preliminary Policy Recommendations with Significant Fiscal Impact**
- **Working Group 3: College and Career Readiness Pathways**
Chester Finn, Moderator
 - **Working Group 2: High Quality and Diverse Teachers and Leaders**
Paul Pinsky, Moderator
- 12:00 noon Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 12:45 p.m. Discussion of Policy Area 5: Governance and Accountability**
- 1:30 p.m. Proxy For Students At Risk of Not Succeeding in School**
- Steven Brooks, Senior Financial Advisor, MSDE
 - Dara Shaw, Director of Research, MSDE
 - Jennifer King Rice, Dean of the College of Education, University of Maryland, College Park Campus
- 3:00 p.m. Calculating Local Wealth and Enrollment**
- Scott Gates, Kyle Siefering, and Rachel Hise
Office of Policy Analysis, Department of Legislative Services
- 5:00 p.m. Closing Remarks and Adjournment**

Next Meetings: *Wednesday, November 14, 9:30 a.m. – 5:00 p.m.*
Thursday, November 29, 9:30 a.m. – 7:30 p.m. (including public hearing)

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

November 14, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

9:30 a.m. Chair's Opening Remarks

9:35 a.m. Review of Working Group Recommendations and Equity

- **Dr. Ivory Toldson – Howard University Professor and President & CEO QEM Network**

11:00 a.m. More Discussion of Policy Area 5: Governance and Accountability

12:15 p.m. Lunch Break (*Lunch Provided for Commissioners in Room 170*)

1:00 p.m. Overview of Process for Costing Out Estimates and Incorporating New Costs into Aid Formulas

- **Department of Legislative Services**

1:30 p.m. Preliminary Cost Estimates for Working Group 2 and 3

- **Department of Legislative Services**
- **Augenblick, Palaich and Associates**
- **National Center on Education and the Economy**

5:00 p.m. Closing Remarks and Adjournment

Next Meetings: Thursday, November 29, 9:30 a.m.-7:30 p.m. (including public hearing)
Thursday, December 6, 9:30 a.m.-5:00 p.m.

Commission on Innovation and Excellence in Education

William E. Kirwan, Chair

Agenda

November 29, 2018

9:30 a.m.-7:30 p.m.

120 House Office Building, Annapolis, Maryland

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- 9:30 a.m.** **Chair's Opening Remarks**
- 9:35 a.m.** **Review of Process for Costing Out Estimates**
- **Department of Legislative Services**
- 9:45 a.m.** **Preliminary Cost Estimates for Working Group 1 and 4**
- **Department of Legislative Services**
 - **Augenblick, Palaich, and Associates**
- 12:15 p.m.** **Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 1:00 p.m.** **More Discussion of Policy Area 5: Governance and Accountability**
- 2:45 p.m.** **Break**
- 3:00 p.m.** **Public Hearing**
- 5:00 p.m.** **Dinner Break (*Dinner Provided for Commissioners in Room 170*)**
- 5:30 p.m.** **Public Hearing Continued (in Room 120)**
- 7:30 p.m.** **Closing Remarks and Adjournment**

Next Meetings: ***Thursday, December 6, 9:30 a.m.-5:00 p.m.***
 Tuesday, December 18, 9:30 a.m.-2:00 p.m.
 Wednesday, December 19, 9:30 a.m.-5:00 p.m.

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

December 6, 2018

9:30 a.m.-5:00 p.m.

120 House Office Building, Annapolis, Maryland

- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. Updated Cost Estimates for Working Groups 1, 2, 3 and 4 (including 4b)**
- Department of Legislative Services
 - Augenblick, Palaich, and Associates
- 11:00 a.m. Discussion of Cost Overlaps, Savings, and Total Costs**
- Department of Legislative Services
 - Augenblick, Palaich, and Associates
- 12:15 p.m. Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 1:00 p.m. Potential Policy/Cost Options**
- Department of Legislative Services
 - Augenblick, Palaich, and Associates
- 2:00 p.m. Building the Foundation and Other Funding Formula Decision Points**
- Department of Legislative Services
 - Augenblick, Palaich, and Associates
- 3:00 p.m. Timeline and Next Steps for Commission's Final Report**
- 4:00 p.m. More Discussion of Policy Area 5: Governance and Accountability (time permitting)**
- 5:00 p.m. Closing Remarks and Adjournment**

Next Meetings: *Tuesday, December 18, 9:30 a.m.-2:00 p.m.*
Wednesday, December 19, 9:30 a.m.-5:00 p.m.

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

December 18, 2018
9:30 a.m.-2:00 p.m.
120 House Office Building, Annapolis, Maryland

Subject to Change

- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. Finalize Cost Estimates for Working Groups 1, 2, 3 and 4 (including 4b)**
- **Department of Legislative Services**
 - **Augenblick, Palaich, and Associates**
- 11:00 a.m. Finalize Cost Overlaps, Savings, and Total Costs**
- **Department of Legislative Services**
 - **Augenblick, Palaich, and Associates**
- 12:30 p.m. Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 1:00 p.m. Building the Foundation Exercise and Timeline for Implementation of Recommendations (if time permits)**
- **Department of Legislative Services**
 - **Augenblick, Palaich, and Associates**
- 2:00 p.m. Adjournment**

Next Meeting: Wednesday, December 19, 9:30 a.m.-5:00 p.m.

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

December 19, 2018
9:30 a.m.-5:00 p.m.
120 House Office Building, Annapolis, Maryland

Subject to Change

- 9:30 a.m. Chair's Opening Remarks**
- 9:35 a.m. Finalize Policy Recommendations for Working Groups 1, 2, 3 and 4 (including 4b)**
- **Review Equity Recommendations from Dr. Toldson and Education Trust**
 - **Other Proposed Changes**
- 11:00 a.m. Finalize Policy Area 5: Governance and Accountability**
- 12:30 p.m. Lunch Break (*Lunch Provided for Commissioners in Room 170*)**
- 1:00 p.m. Review Fiscal 2020 Funding Priorities and Timeline for Implementation of Commission Recommendations**
- 3:00 p.m. Estimated Per Pupil Foundation, Per Pupil Weights, and Education Aid Inflation Factor**
- **Department of Legislative Services**
 - **Augenblick, Palaich, and Associates**
- 4:30 p.m. Review Final Report Outline**
- 5:00 p.m. Adjournment**

Next Meeting: January 2019 TBD

Commission on Innovation and Excellence in Education
William E. Kirwan, Chair

Agenda

January 18, 2019
12:30-5:30 p.m.
130 House Office Building, Annapolis, Maryland

12:30 p.m. Chair's Opening Remarks

12:35 p.m. Discussion and Finalize Draft Interim 2018 Report

5:30 p.m. Chair's Closing Remarks and Adjournment

Next Meeting: None Scheduled

Commission Working Groups*

Working Group 1 Early Childhood Education	Working Group 2 High Quality Teachers and Leaders	Working Group 3 College and Career Readiness Pathways	Working Group 4 More Resources to Ensure All Students Are Successful
Member	Member	Member	Member
Craig Rice (Moderator)	Paul Pinsky (Moderator)	Chester Finn (Moderator)	Joy Schaefer (Moderator)
Margaret Williams	David Helfman	Steve Waugh	Buzzy Hettleman
David Brinkley	Steve Guthrie/Karen Couch	Scott Dorsey	Richard Madaleno
Adrienne Jones	David Steiner	Anne Kaiser	Maggie McIntosh
Nancy King	Bill Valentine	Elizabeth Leight	Morgan Showalter
Leslie Pellegrino	Bob Caret	Karen Salmon	Alonzo Washington
		CTE Subgroup – Salmon/Dorsey Co-moderators	

*Chair Brit Kirwan will float among groups

CTE Subgroup Members

Dr. Karen Salmon and Mr. Scott Dorsey (co-moderators)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Lynne Gilli 2. Kristine Pearl 3. Jennifer Bodensiek 4. Sharon Markley 5. Chris MacLarion 6. Senator Jim Rosapepe 7. Robert Sheets 8. Bob Aydukovic 9. Dr. Daniel P. Mosser 10. Michael R. DiGiacomo | <ol style="list-style-type: none"> 11. Grant Shmelzer 12. Jeff Guido 13. Michael Thomas 14. A. Duane Arbogast 15. Donald C. Fry 16. Dr. Carol A. Williamson 17. Dr. Chester E. Finn* 18. Senator Steve Waugh* 19. Delegate Anne R. Kaiser* 20. Elizabeth Ysla Leight* |
|---|---|

*Members of Working Group 3 were invited and encouraged to participate in the CTE subgroup

Policy Area 1

Early Childhood Education Cost Estimates

Element 1a: Expand full-day prekindergarten (pre-K) at no cost for four-year-olds and three-year-olds from families with incomes up to 300% of the federal poverty level (FPL) (approximately \$75,000 for a family of four in 2018) and for four-year-olds from families with incomes between 300% and 600% FPL (approximately \$75,000 to \$150,000 for a family of four in 2018) using a sliding scale.

Baseline: Local education agencies must provide all four-year-olds who seek to enroll in a public pre-K program and who are eligible for free or reduced-price meals (185% FPL) with access to a half-day pre-K program.

Based on a survey of local education agencies, reported pre-K spending in fiscal 2018 totaled \$143,643,388.

Assumptions:

Four-year-olds:

- The cost of quality figures developed by Augenblick, Palaich, and Associates includes staff qualifications, salaries, and benefits; 1 to 10 student teacher ratios with staffing levels of one pre-K teacher and one aide or assistant teacher per pre-K classroom; and time for staff meetings, planning time, child assessment, parent engagement, and transition activities.
- **Capacity:** As of September 30, 2017, there were 14,899 four-year-olds enrolled in public school half-day slots and 11,633 four-year-olds enrolled in public school full-day slots. It is assumed that all of the half-day slots will be converted into full-day slots by year 4, when the full-day pre-K requirement takes effect.

There are 11,722 slots available in community-based settings for four-year-olds. For the purposes of costing out, it is assumed that all of these slots will be available for the publicly funded pre-K program. However, it is likely that not all community-based providers will participate in the new publicly funded full-day pre-K program, and, therefore, only a portion of the community-based slots will be available for the public program. It is assumed that beginning in year 4, there will be 5% growth per year in the number of slots available in community-based settings. The growth assumption accounts for community-based providers that are currently licensed but not participating in EXCELS that choose to enter EXCELS and publish at a level 3 quality rating. The growth assumption also accounts for new providers that will enter the early childhood education market and begin offering pre-K programs to four-year-olds and three-year-olds.

- **Participation for Four-year-olds:** The starting target for the voluntary enrollment of four-year-olds at or below 300% FPL in publicly funded full-day pre-K is 70%. However, staff assumed that the participation rate would be lower during the four-year period of converting existing half-day slots to full-day slots. The target participation rate increases to 75% in years 6 and 7, and 80% in years 8 and beyond.
- **EXCELS:** Community providers must publish at least at a level 3 ranking on EXCELS with a plan approved by the Maryland State Department of Education (MSDE) to achieve level 5 within five years. Public school pre-K programs must publish in EXCELS at least at a level 4 with a plan approved by MSDE to achieve level 5 within five years. Beginning in year 5, all programs must publish at level 5 to participate in the publicly funded full-day pre-K program.

It is assumed that one quarter of the EXCELS levels 1 and 2 slots move to level 5 per year beginning in year 7 so that by year 10, all level 1 and 2 slots will be at a level 5. It is assumed that all slots in year 1 that are accredited but not participating in EXCELS enter EXCELS and progress to level 5 by year 10.

- **Half-day to Full-day Conversion:** It is assumed that local education agencies will convert one quarter of the public school half-day slots per year to full-day slots served in either public school-based or community-based settings, so that in year 4, all slots will be full day.
- **Funding Level:** It is assumed that if four-year-olds are included in an enrollment-based formula, the per pupil funding level would start at a level 3 cost of quality amount (\$8,446) and phase up to the level 5 cost of quality amount (\$12,804) by year 5. Therefore, the cost of quality amounts are \$8,446 in year 1, \$9,576 in year 2, \$10,747 in year 3, \$11,776 in year 4, and \$12,804 in year 5 and beyond.
- **Minimum Percent in Community-based Settings:** Beginning in year 1, there will be a requirement that a minimum percentage of pre-K slots (for four-year-olds and/or three-year-olds) be provided in community-based settings. This requirement will be phased in over the 10-year period, starting at 30% to reflect the current balance between public school-based and community-based providers. The minimum percentage will increase in 5% per year increments in years 1 through 4, and remain constant at 50% beginning in year 5.
- **Sliding Scale:** Beginning in year 5, public funding will be provided to assist with the cost of pre-K for families with incomes between 300-600% FPL/\$75,000 and \$150,000 for a family of four. Even with this public support, families will still be expected to pay a portion of the cost to attend a pre-K program so that as a family's income increases, the amount of public support decreases (sliding scale). There will be 15 steps, with a 6-7% percentage point different between each step. Families with incomes above 600% FPL/\$150,000 for a family of four will pay the full cost for four-year-old pre-K. These slots will be funded at a level 5 cost of quality amount beginning in year 5. Staff assumes that the participation rate begins at 70% in years 5 and 6, increases to 75% in years 7 and 8, and increases to 80% in years 9 and beyond.

Sample Sliding Scale		
FPL	Family Pays	State/Local Pays
301-320%	\$ 764	\$ 11,458
321-340%	1,528	10,694
341-360%	2,292	9,930
361-380%	3,056	9,167
381-400%	3,819	8,403
401-420%	4,583	7,639
421-440%	5,347	6,875
441-460%	6,111	6,111
461-480%	6,875	5,347
481-500%	7,639	4,583
501-520%	8,403	3,819
521-540%	9,167	3,056
541-560%	9,930	2,292
561-580%	10,694	1,528
581-599%	11,458	764

Three-year-olds:

- **Capacity:** As of September 30, 2017, there were 3,574 three-year-olds participating in public school-based pre-K. It is assumed that a slot for a four-year-old can also serve a three-year-old.

In certain years, there will not be enough slots to serve three-year-olds from low-income families, mainly when the sliding scale takes effect.

- **Participation Rate:** It is assumed that the participation rate for the voluntary enrollment of three-year-olds in publicly funded full-day pre-K will be 80% throughout years 1 through 10 except when there are not enough high-quality spots available.
- **Phase-in:** Publicly funded full-day pre-K for three-year-olds from low-income families (up to 300% FPL/\$75,000 for a family of four) will be phased in over the 10-year period by a minimum of 10% per year. Therefore, by year 10, all three-year-olds from low-income families will be offered full-day pre-K (and 80% will choose to participate).
- **Funding Level:** It is assumed that the cost of quality for a four-year-old is the same as the cost of quality for a three-year-old. It is assumed that if three-year-olds are included in an enrollment-based formula, the per pupil funding level would start at a level 3 cost of quality amount and reach the level 5 cost of quality amount by year 5. Therefore, the cost of quality amounts are \$8,446 in year 1, \$9,576 in year 2, \$10,474 in year 3, \$11,776 in year 4, and \$12,804 in year 5 and beyond.

Cost: See chapter 4.

Element 1b: Capacity building for new and current programs (tuition assistance for prospective staff, training, support of peer networks, integration with career ladder)

Baseline: According to 2017 MSDE Career and Technical Education (CTE) data, the CTE program with the highest percentage of enrollment was the Early Childhood Education/Child Care Services Program. Almost 12% of students enrolled (12,199) in a CTE program were enrolled in the Early Childhood Education/Child Care Services Program. The program follows the high school Child Development Associate (CDA) Program of the National Credentialing Program. Students complete 120 clock hours of child development education and 480 hours of experience working directly with children in licensed facilities.

Another 2% (2,140) were enrolled in the Teacher Academy of Maryland CTE Program. The program focuses on human growth and development through adolescence, teaching as a profession, curriculum and instruction, and an education academy internship. Upon completion of the program and passing the ParaPro test or PRAXISCore, high school graduates are ready for employment in the teaching profession.

MSDE currently administers the following programs to encourage child care and pre-K providers to improve the quality of their programs for participating children by pursuing accreditation, licensing, and other technical assistance opportunities. Except for tuition assistance programs, a program grant award or amount can vary based on the type of setting or the number of children served by the provider.

Child Care Accreditation Support Fund: MSDE offers financial assistance from the Child Care Accreditation Support Fund to child care centers for fees and instructional materials to pursue Maryland Program Accreditation or national accreditation. There were 133 grantees in fiscal 2018, and the fiscal 2019 budget included \$600,000 in general funds for this program.

Child Care Quality Incentive Grants: This program provides funds to child care professionals for approved materials, equipment, and supplies. There were 200 grantees in fiscal 2018, and the fiscal 2019 budget included \$55,000 for grant awards.

Maryland Child Care Credential Program Bonuses, Training Reimbursements, and Vouchers: MSDE provides incentives including achievement bonuses, training reimbursements, and vouchers for child care providers in the Maryland Child Care Credential Program if they meet at least level 2 of staff or administrator credential levels when they enter the program. In fiscal 2018, 9,335 professionals participated in the credential program, and in fiscal 2019, \$3.6 million in bonuses, \$120,000 in reimbursements, and \$175,000 in vouchers were allocated.

Child Care Career and Professional Development Fund (CCCPDF): Participants at or above level 2 in the Maryland Child Care Credential Program are also eligible for tuition assistance from the CCCPDF. Awards can be used for tuition, fees, or textbooks for an associate's or bachelor's degree program in early childhood education or related fields at participating in-state colleges. Students participating must have at least one year of experience working with groups of children and must work a minimum of 10 hours per week in an approved child care facility to continue receiving the award. There were 541 participants in fiscal 2018 and the fiscal 2019 budget included \$2 million in assistance.

Maryland EXCELS Program Bonuses: The Maryland EXCELS Program awards bonuses to participating programs based on the published quality rating and licensed capacity of the facility. There were 4,500 participating programs in fiscal 2018, and the fiscal 2019 budget included \$3 million for bonuses to encourage providers to reach higher quality ratings.

Assumptions: For existing accreditation, credentialing, and other quality improvement programs in the State, it is assumed that there will be a 10% increase in funding per year over 10 years. The fiscal 2020 baseline year is based on fiscal 2019 funding levels for these programs. The increase in funding will allow for increased coaching and technical assistance through EXCELS, Child Care Resource Centers, and existing MSDE programs. The State will prioritize supporting providers in high-need communities in meeting EXCELS level 5.

New tuition assistance programs will be provided for prospective and current child care professionals pursuing a CDA certificate, associate's degree, or bachelor's degree. The average cost of each certificate or degree program is \$2,200, \$6,000, and \$30,000, respectively. Each scholarship would be evenly divided and awarded over two years for an associate's degree program and four years for a bachelor's degree program. The scholarships for CDA certificates would be awarded for one year. It is assumed that these programs would be administered and funded separately from the existing CCCPDF program, which provides assistance for individuals who are currently working in approved child care facilities.

For each tuition assistance program, 100 candidates are assumed to receive a scholarship annually, so the two-year associate's degree program will serve 200 candidates beginning in year 2 and the four-year bachelor's degree program will serve 400 candidates beginning in year 4.

Public pre-K teachers will be part of the Maryland K-12 teacher career ladder and, therefore, will not be eligible for expanded credentialing and EXCELS incentives. For community-based settings, these programs are intended for providers to achieve EXCELS level 5 at a pace that matches pre-K expansion as outlined in Element 1a.

Cost:

Existing Accreditation, Credentialing, and Technical Assistance Incentives

Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$755,000	\$4,609,351	\$12,032,756

New Tuition Assistance Programs and CCCPDF

Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$1,470,000	\$5,041,020	\$7,007,485

Element 1c: Implementation of a school readiness assessment for all students entering kindergarten

Baseline:

In the 2017-2018 school year, 12 of the 24 jurisdictions administered the Kindergarten Readiness Assessment (KRA) as a census. For the 2018-2019 school year, 14 of the 24 jurisdictions indicated that the jurisdiction would administer the KRA as a census.

Assumptions:

A racially and culturally unbiased assessment will be given to all kindergarteners as a census, beginning in the 2020-2021 school year, that will be used for diagnostic purposes, curriculum development, and early detection of learning challenges. Since there is an observational component of the assessment that prevents the full assessment from being administered before the student enters kindergarten, local education agencies will have flexibility to administer a portion of the assessment before students enter kindergarten and during the first two months of the school year.

The State will extend the administration window from October 10 to October 30 to reduce the operational impact of conducting the assessment as a census.

A survey of kindergarten teachers who administered Version 2.0 of the KRA will be conducted after it is fully implemented in fall 2018 to get feedback on the usefulness and usability of the new version of the KRA.

Cost:

It is assumed that MSDE can conduct the survey using existing resources.

Local costs may increase for jurisdictions that decide to administer all of the KRA (except for the observational component) during the summer months before students enter kindergarten. The 2017-2018 KRA took an average of 40 minutes per student to administer. It is assumed the observational component takes 10 minutes per student. Therefore, it is assumed that it would take 30 minutes per student to administer the remaining portion of the KRA during the summer.

Assuming an incoming kindergarten class size of 21 students (based on 2016-2017 statewide elementary class averages), it would take 630 minutes to administer the KRA (10.5 hours). Staff assumes it would require two working days per class at the local per diem rate to compensate the teacher during the summer months.

On one end of the spectrum, one jurisdiction has approximately 11 kindergarten classrooms. On the other, one jurisdiction has 536 kindergarten classrooms. The average number of kindergarten classrooms per local education agency is 128. Therefore, it would take 1,344 hours for an average local education agency to administer the majority of the KRA before students enter kindergarten.

Element 1d: Expand Judy Centers, Family Support Centers, and the Maryland Infants and Toddlers Program to provide and coordinate access to education and support services for at-risk children ages 0-5 and their families.

Baseline: There are currently 54 Judy Centers, with 1 or more located in each jurisdiction and 323 Title 1 elementary schools.

There are currently 25 Family Support Centers. There are currently 9 counties (Calvert, Charles, Garrett, Harford, Howard, St. Mary's, Somerset, Wicomico, and Worcester) where there are no Family Support Centers.

The Maryland Infants and Toddlers Program currently serves 18,251 children annually. State funding levels have remained constant at \$10,389,104 since 2009.

Assumptions: The State will expand the number of Judy Centers over 10 years. Priority in opening new centers will be focused on serving the neediest communities. MSDE must consider geographic diversity and coordinate placement to serve several closely located Title 1 schools in a high-needs area or region. The State will increase the number of centers so that 45 centers open in the first 5 years (9 per year) and 90 centers open in the next 5 years (18 per year). By year 10, there will be 135 new Judy Centers, reducing the gap by half.

The State will expand the number of Family Support Centers over 10 years with the goal of ensuring that every underserved neighborhood has a Family Support Center or similar set of programs and services. The State's goal should be to open 3 new centers a year so that by year 10, there will be 30 new Family Support Centers.

The Maryland Infants and Toddlers Program uses a statutory formula based on the number of children who receive services.

Cost:

The annual State grant is \$330,000 per Judy Center. The State contribution towards a Family Support Center is \$330,000 per center. For the Maryland Infants and Toddlers Program, the annual per child cost for fiscal 2020 is \$6,210 multiplied by 20%, per the statutory formula. It is assumed that the number of children being served by the Maryland Infants and Toddlers Program (18,251) remains constant. MSDE one-time and ongoing administrative costs increase (to be determined).

Judy Centers

Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$2,970,000	\$14,850,000	\$44,550,000

Family Support Centers

Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$990,000	\$4,950,000	\$9,900,000

Maryland Infants and Toddlers Program

Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$1,227,864	\$6,139,320	\$12,278,638

Policy Area 2

High-quality and Diverse Teachers and Leaders Cost Estimates

Element 2a: Teacher preparation will be much more rigorous, and induction will be integrated with teacher preparation more systematically.

Baseline: Teacher candidates must complete a 100-day teacher practicum prior to earning a bachelor's or master's degree in teaching.

Assumptions: By year 5, prospective undergraduate teachers must complete a 180-day practicum.

All practicum experiences are the shared responsibility of school systems and higher education institutions. School districts will share accountability for finding placements for qualified candidates and will compensate qualified “supervising” or mentor teachers (using career ladder criteria as a major criteria for selection). Institutions will collaborate with supervising/mentor teachers to evaluate teacher interns and ensure the interns demonstrate all necessary competencies required of teachers. Students will not be charged a fee for the practicum.

A review of existing State teacher preparation program requirements will be undertaken by the higher education institutions, the Maryland State Department of Education (MSDE), Maryland Higher Education Commission, and local school systems to determine what requirements are no longer necessary and what new requirements should be added. The expanded teacher practicum must be incorporated into the program, preferably within the existing 120-credit degree program and in no case more than an additional 12 credits.

The State will make one-time, multi-year grant funds available in years 0 through 4 to collaboratives of school systems, university-based teacher preparation programs, and exclusive employee representatives to provide state-of-the-art professional education for prospective teachers that reflects the best practices of the top-performing countries. An evaluation will be completed in year 5.

MSDE will increase its capacity to provide technical assistance and support to teacher preparation programs and to facilitate collaboration between school systems and higher education institutions.

Cost: The cost associated with making teacher preparation more rigorous and extending the teacher practicum are primarily a repurposing of existing funds by both higher education institutions and school systems.

State seed grants of approximately \$2.5 million will be made available to teacher preparation collaboratives over two to five years to develop and implement rigorous teacher preparation programs and practicums.

It is assumed that the teacher preparation program review can be completed with existing resources. MSDE one-time and ongoing administrative costs increase to build capacity (TBD).

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$2,500,000	\$2,500,000	\$0	\$0

Element 2b: Raise standards for licensing new teachers in Maryland to levels comparable to the standards for teachers in the top-performing nations.

Baseline: Passing Praxis I and II is required for most teachers to receive a Maryland Standard Professional Certificate. A master's degree is required by the tenth year of teaching in order to receive an advanced professional certificate.

Assumptions: The State will require prospective teachers to pass a test of teaching ability (*e.g.*, edTPA, Praxis Performance Assessment for Teachers) in order to receive an initial Maryland license. After sufficient data has been collected that demonstrates that one test is more valuable than another the State should adjust the requirement. Teachers will also be required to pass exams of teacher mastery of reading instruction and content at least on par with the rigor of Massachusetts.

Cost: It is assumed that MSDE, the State Board of Education, and the Professional Standards and Teacher Education Board can require additional teacher testing using existing resources. The MSDE capacity building costs associated with Element 2a are assumed to cover the costs of analyzing teacher testing data and making recommendations to the State board regarding teacher testing requirements.

Element 2c: Expand teaching scholarships and loan assistance for highly skilled and diverse candidates to teach in high-need schools.

Baseline: Annual funding of \$2,000,000 is mandated by Chapter 361 of 2018 for the Maryland Teaching Fellows Scholarship beginning in fiscal 2019.

The Nancy Grasmick Teacher Scholars Loan Assistance Repayment Program (LARP) provides loan repayment assistance for those who have taught for at least two years in a Maryland public school with a high concentration of poverty (75% eligible for free or reduced-price meals) or who taught science, technology, engineering, or math.

Cost: Scholarship funding increases to \$4 million in year 2, \$8 million in year 3, \$12 million in year 4, and \$18 million in year 5 and thereafter. Funding should continue at this level until a sufficient number of qualified teachers are produced and remain in the Maryland teaching profession. At such time that this occurs, the State may consider reducing the required amount of funding, but some level of scholarship funding should be maintained to ensure a diverse and qualified cadre of teachers in the State.

It is assumed that the outreach and recruitment campaign in Element 2d will include outreach to increase awareness of the Maryland Teaching Fellows Scholarship and Grasmick LARP.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
0	0	\$16,000,000	\$16,000,000

Element 2d: Encourage higher education institutions to take advantage of national foundation efforts to develop highly qualified teachers and leaders from diverse backgrounds.

Assumption: The State provides any required matching funds.

Cost: Unknown but assumed to be minimal.

Element 2e: Launch statewide public relations and communications initiative to rebrand teaching as an attractive career and attract students from diverse backgrounds.

Baseline: Chapter 361 of 2018 established a teacher outreach and recruitment campaign to be run by the Maryland State Department of Education and requires \$250,000 annually.

Assumptions: After the Commission report is completed and adopted by the State, consider launching a statewide outreach effort to promote all of the Commission's

recommendations, including a high quality media campaign to rebrand teaching as an attractive career. Consider strategies used by top systems such as pro bono services from leading communications firms in the State and region.

The State may consider modifying the campaign by decreasing the amount of funding provided as recruitment becomes less challenging and prestige increases and targeting or limiting the funding provided to certain critical shortage areas or demographic targets, as needed.

Cost: No additional cost above the \$250,000 annual budget. It is assumed this level of funding is needed for the 10-year implementation period and includes funding for a statewide outreach effort to educate the public about the Commission's recommendations.

Element 2f and 2g: Raise teacher pay to make it equitable with other highly trained professionals with the same amount of education. Develop career ladders for teachers and school leaders comparable in design to the career ladders found in Singapore and Shanghai, with respect to standards for advancement and relationship to the system for compensating teachers and school leaders.

Baseline: There are no State guidelines for teacher compensation.

Assumptions: The model projects student enrollment, educator full time equivalents, and salaries and benefits, both current and proposed, from 2020 through 2030.

- **Educators Included in Model:** The model includes all teachers, assuming a similar teacher-student ratio to actual ratios from recent years, as well as guidance counselors, and librarians/media specialists. It also includes the additional public prekindergarten teachers required for expanded prekindergarten for three- and four-year-olds recommended by Working Group 1. The model does not include administrators or any expanded staffing proposed in other working groups, which may be accounted for in other elements.
- **Enrollment Estimates:** Student enrollment estimates through 2026 from Maryland Department of Planning projections, *Public School Enrollment Projections 2017-2026* (September 2017). Estimates for 2027-2030 based on three-year average enrollment increases for the years 2024-2026.
- **Number of Educator Full-time Equivalents:** Estimates of the total number of teachers, guidance counselors, and librarians beyond 2018 are based on the actual average ratio of all teachers, guidance counselors, and librarians to student enrollment for the years 2014-2018.
- **Salaries:** Statewide average teacher salaries by years of experience and educational attainment were calculated for 2018 using MSDE staffing data for all staff categorized as Teacher/Instructor (implied statewide salary schedule). Base salaries used for career ladder projections are 2018 salaries inflated to 2020 using the inflation factor provided

by the Department of Legislative Services. The same method was used to calculate guidance counselor and librarian salaries.

- **Proposed Salaries:** 2018 salaries inflated to 2020 projected salaries are increased by 10% between 2020 and 2022 and a minimum teacher salary of \$60,000 is phased in by 2024.
- **Salary Cost Estimates:** Statewide costs of baseline and opt-out teacher salaries are estimated by progressing teachers across the implied statewide salary schedule. The model assumes an annual teacher turnover rate of 7.0% (the same assumption is used for guidance counselors and librarians). The implied salary schedule is based on averaged actual staffing data provided by MSDE. The annual number of teachers earning advanced credits and degrees is also based on averaged actual staffing data provided by MSDE.
- **Fringe Benefits:** Local teacher retirement rates use State-provided projections through 2030. (State retirement costs will increase by an amount to be determined by the State's actuary.) Nonretirement fringe benefits are estimated to be 11% of salary for all years through 2030 plus \$11,939 for health insurance.
- **National Board for Professional Teaching Standards Participation Rates:** The rate at which teachers, guidance counselors, and librarians attempt to complete National Board for Professional Teaching Standards (NBPTS) certification is based on data on the distribution of the number of modules purchased by individual educators per year provided by the NBPTS.
- **NBPTS Passing Rates:** NBPTS passing rates are assumed to be 50% through 2019 (the current State passing rate), 45% in 2020, 40% in 2021, 45% in 2022, 50% in 2023, 55% in 2024, 60% in 2025, 65% in 2026, 69% in 2027, 73% in 2028, and 75% in 2029 and 2030. The reduction in passing rates beginning in 2020 is assumed due to the large increase in the number of educators pursuing NBPTS certification. The passing rate begins to increase again in 2022 on the assumption that more supports will be available to educators to achieve NBPTS certification.
- **Career Ladder Opt-in Rates:** The rate at which educators opt into the NBPTS track starts at 25% in 2021 for all educators except those with more than 30 years of experience (which is held constant at 1% for all years), increasing to 30% in 2022, 40% in 2023, 45% in 2024, 50% in 2025, 55% in 2026, 65% in 2027, 70% in 2028, and 75% in 2029 and 2030. It is assumed that 100% of new educators are required to opt in beginning in 2026.
- **Proposed Raise Amounts:** The following table summarizes the types and amounts of raises available to all educators who are eligible to earn NBPTS certification and opt in to the career ladder. Once an educator earns NBPTS certification, she/he no longer receives raises according to the local salary schedule. Future raises are only earned by achieving NBPTS recertification and by cost-of-living raises approved by local school systems.

Proposed Teacher Salary Increases

Total raise for earning NBPTS certification	\$12,000
Additional raise for low-performing schools	\$5,000
Raise for earning 1 st recertification	\$8,000
Raise for earning 2 nd recertification	\$7,000
Raise for earning 3 rd + recertifications	\$6,000
Raise for Lead Teacher	\$5,000
Raise for Master Teacher	\$10,000
Raise for Professor Master Teacher	\$15,000
Raise for earning MA/APC	3.0%
Raise for Master Principal	\$15,000

NBPTS: National Board for Professional Teacher Standards

MA: master's degree

APC: advanced professional certificate

Cost:

Total increased cost for teacher compensation, including guidance counselors and librarians, and the career ladder. Cost includes fringe benefits except retirement.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$152,022,698	\$285,602,680	\$943,487,029	\$1,482,111,398

Average Teacher Salary	FY 2018	FY 2020	FY 2021	FY 2025	FY 2030
Current	\$69,557	\$71,707	\$71,952	\$73,318	\$75,259
Proposed	\$69,557	\$73,626	\$75,753	\$86,411	\$95,830

Additional public prekindergarten teachers, including fringe benefits (overlap with Policy Area 1).

- The model incorporates the additional public prekindergarten teachers needed based on the proposed phase-in for enrollment of three- and four-year-olds in prekindergarten programs. By 2030 an additional 1,565 teachers will be required.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$9,558,322	\$15,063,298	\$114,730,461	\$233,729,090

School Leaders Career Ladder – Master Principals

- The additional cost of a \$15,000 raise paid to principals achieving the Master Principal level is included in the model. The estimate assumes a maximum of 360 Master Principal full-time equivalents, which are phased in between 2023 and 2026.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
N/A	\$972,100	\$3,402,000	\$6,804,000

National Board for Professional Teaching Standards Fees

- The model includes the cost of NBPTS fee reimbursement, assuming that educators participating in NBPTS certification will be reimbursed for the costs of the board's registration fee (\$75), the \$475 fee per module (only reimbursed if successfully passed), and for renewal or Maintenance of Certification (this fee has not yet been established by the board, but board literature claims it will be significantly less than the previous \$1,000 recertification fee. A fee of \$475 is assumed for this estimate).

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$430,512	\$468,350	\$4,739,169	\$4,919,562

Element 2h: Train the State superintendent and the 24 local superintendents; their senior, instruction-related staff; State and local board of education members; and school principals to give them the vision, motivation, skills, and knowledge they will need to implement the recommendations made in the Commission's report.

Assumptions:

- Based on national programs that train school leaders, a cohort of district leaders and the State Superintendent of Schools will be trained with the knowledge, skills, and tools to design and lead districtwide, coherent-aligned systems of instruction and learning. This assumes an 18-month engagement that includes 20 days (120 hours) of face-to-face executive development, plus more than 24 hours of self-study and online work.
 - 25 participants (24 district superintendents + State Superintendent of Schools) x \$18,000 per participant = \$450,000 (year 0)
- State and district leadership teams will be trained to create high-performance organizations that can scale and sustain dramatic improvements in instruction and student learning and develop a research-based plan to redesign their district as a system to dramatically improve student achievement, equitably and efficiently. Each partnership team involves 14 or more days of face-to-face executive development delivered to district leadership teams, plus district-led work that occurs in between and after sessions.
 - 25 district partnership teams (24 districts + State department team) x \$160,000 per partnership = \$4 million (\$1 million in year 0 and \$3 million in year 1)
- Training to provide the knowledge, skills, and tools for school leaders to become instructional leaders and drive school-wide improvements in instruction and student learning. Principal training will involve 24 half days of face-to-face executive development typically delivered during the course of a year (12 2-day units, usually delivered once a month, plus a half day orientation) delivered using a train-the-trainer model. This will enable Maryland to build the State's capacity to deliver the training cost-effectively by training a cadre of local facilitators, who in turn will deliver the training to subsequent cohorts of principals across the State. Based on an estimated 1,350 principals in the State:
 - Train-the-trainer (locally facilitated, with some delivery by national content facilitators):
 - Train 150 principals at \$13,500 per participant = \$2,025,000 (year 1)
 - 1 online course for 150 principals (year 2) (no additional cost)
 - Train and certify 50 local facilitators (4 facilitator certification institutes x \$42,000) = \$168,000 (year 1)

- Train remaining 1,200 principals at \$5,250 using local facilitators = \$6,300,000 (\$2.1 million in each of years 2, 3, and 4)
- Total Train-the-trainer Cost Option: \$8.5 Million (years 0-4)

Cost: Primarily one-time costs spread over multiple years; some ongoing cost to train new superintendents and principals

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$1,450,000	\$5,193,000	\$2,100,000	\$200,000

Element 2i: Change the way schools are organized and managed to increase the amount of time available for teachers to tutor students who need intensive help and work together in teams to use data and observation to identify students who are falling behind and collaborate on getting them back on track, develop highly engaging and effective lesson plans, mentor new and struggling teachers, and systematically improve the school's instructional program using applied research. Train teachers in the effective use of the career ladder and additional collaborative time.

Additional Teacher Time Assumptions:

- Teachers' instructional time is reduced to provide additional time for collaboration beginning in 2021. All teachers' instructional time is reduced by 25% (from 80% to 60% instructional time of the contract day). This estimate of additional teachers excludes 13% of teachers, assuming that certain teaching positions, including teachers without regular classroom responsibilities (such as tutors); and music, dance, theater, art, and physical education teachers; have adequate flexibility in their daily schedules to incorporate the increased collaboration time. The estimate also assumes that principals and assistant principals, who will have limited teaching responsibilities (20% for assistant principals and 10% for principals) will offset some of the need for additional teachers.
- Instructional time for teacher leaders is also reduced to the following levels: Lead Teachers – 50%, Master Teachers – 40%, and Professor Master Teachers – 20%.
- These reductions in instructional time will require an additional 14,685 teachers by 2030 to continue providing the same number of classes.
- The number of teachers eligible for additional collaboration time is phased in through 2030 on the following schedule: 2021 – 10% of teachers, 2022 – 15% of teachers, 2023 – 20% of teachers, 2024 – 35% of teachers, 2025 – 50% of teachers, 2026 – 65% of teachers, 2027 – 75% of teachers, 2028 – 90%, 2029 and 2030 – 100%. The phase-in is by school based on performance, need, and number of new teachers employed.
- The cost of the additional public prekindergarten teachers required to provide increased collaboration time for prekindergarten teachers (the same reduction of

instructional time from 80% to 60% as all other teachers) is also estimated in the model. By 2030 an additional 249 teachers will be required.

Additional Teacher Time Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$0	\$76,712,962	\$464,060,244	\$999,431,504

Teacher Training Assumptions:

- Teacher training on the career ladder and effective use of collaborative time will be delivered through a development effort to design and create materials and tools for a new system of professional development tied to the career ladder.
- MSDE will need technical assistance to support and build capacity to develop a suite of experiences (in person, online) to prepare teachers to succeed on the career ladder and in schools that are reorganized.
- One-time costs to develop the materials and design the training approximate \$3 million over three years.
- Delivery of the training might be a range of different methods that would have different costs: a video that all teachers watch, a webinar series, traditional workshops delivered by district staff using tools and materials developed in the first three years as well as a train-the-trainer model. It is assumed that these costs are about \$2 million annually.

Teacher Training Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$1,000,000	\$1,000,000	\$2,000,000	\$2,000,000

Policy Area 3

College and Career Readiness Pathways Cost Estimates

Element 3a: Develop a fully aligned instructional system, including curriculum frameworks, course syllabi, and assessments, together with clear examples of standard-setting work and formative assessments to ensure that student stay on track.

Baseline: Current State budget includes funds for new assessments. New costs are for developing and maintaining the curriculum frameworks and course syllabi for English language arts, mathematics, sciences, and history/social studies and for inspection teams that will recommend courses of action for addressing the problems revealed by the inspections.

Assumptions: Additional full-time (contractual and regular) staff will be hired to develop the model curriculum and framework over two years and one day for 10 educators per grade, per content area.

Inspection teams will inspect 10% of schools each year.

Costs: Curriculum development costs at the Maryland State Department of Education (MSDE) for years 1 and 2 are estimated at \$7.5 million annually, which is based on hiring 21 full-time (contractual and regular) staff and stipends and expenses for one day for 10 educators per grade, per content area. Ongoing MSDE costs for curriculum development are estimated at approximately \$840,000 annually – the ongoing cost estimate includes 9 full-time staff.

The cost associated with the inspection teams is estimated at \$1.2 million annually beginning in fiscal 2023. This equates to approximately 12 inspectors.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$0	\$7,494,000	\$ 1,990,466	\$ 1,990,466

Element 3b: Establish and implement a College and Career Readiness (CCR) standard set to global standards. At the outset, the CCR standard will be a score of 4 or higher on the Partnership for the Assessment of Readiness for College and Career (PARCC) Algebra I and English 10 exams.

Baseline: 29.7% of the Class of 2020 (current juniors) have met the CCR standard defined by the Commission.

Assumptions: By year 10, 65% of students will achieve the CCR standard by the end of tenth grade.

The percentage of public school students achieving the CCR standard by the end of tenth grade will remain unchanged until school year 2021-22 and then grow in a linear fashion or roughly four percentage points each year, before reaching the 65% target in school year 2029-30.

Cost: The costs associated with getting more students to achieve the CCR standard by tenth grade are captured in other Commission recommendations, most notably the Element 2i recommendation to provide teachers with more time in part to assist struggling learners and Elements 3c and 3d, described below.

Element 3c: Transitional Supplemental Instruction, including tutoring, for all K-third grade students identified as struggling learners.

Baseline: Dedicated funding of \$2,500,000 is provided in fiscal 2019 through 2022 for the Maryland Early Literacy Program established in Chapter 361 of 2018.

Assumptions: Students scoring PARCC levels 1, 2, and 3 in English language arts for grades K-3 excluding special education students (approximately 12.5% of all students) will receive supplemental instruction. Grade 3 performance is a proxy for grades K-2 since PARCC begins in the third grade.

In combination with the compensatory education per pupil amount (discussed in Policy Area 4), provide tutors on a 1:80 (tutor:student) ratio and tutor coordinators on a 1:11 (coordinator:tutor) ratio.

Begin phasing in Transitional Supplemental Instruction in fiscal 2020, fully fund in fiscal 2021 and 2022, and begin phasing down in fiscal 2023 as Commission recommendations in Policy Area 2 are being implemented.

Cost of a tutor is a blended salary amount for a teacher and a paraprofessional to reflect flexible delivery methods.

Cost of a coordinator is the salary for a teacher.

Salaries were inflated to fiscal 2020 and then, for teacher salaries, an additional 10% was phased in over three years in accordance with the recommendations in Policy Area 2.

Benefits and retirement costs are included.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 2 (FY 2022)	Year 3 (FY 2023)	Year 4 (FY 2024)
\$45,978,876	\$87,297,952	\$89,279,746	\$59,460,311	\$29,730,155

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 tenth grade that gives them extra time and more supports to help them meet that standard as soon as possible.

Costs: The costs associated with Element 3d will be accounted for under the Elements for Policy Area 2.

Element 3e: Students who reach CCR by the end of tenth 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 International Baccalaureate (IB) program, or the Cambridge Advanced International Certificate of Education Diploma (Cambridge) program, or a comparable program consisting of a series of Advanced Placement (AP) courses specified by the College Board;
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 school year 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 school year 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 school year 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 school year 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: 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 Policy Area 1), and therefore does not require a significant increase in the number of teachers (as is the case for Policy Area 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 1 prior to the end of tenth 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.

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 school year 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 Associate of Arts 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 of 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.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
Not Applicable	\$36,701,084	\$57,467,455	\$82,069,374

Element 3f: The State Board of Education will revise high school graduation requirements so that students who achieve CCR will be able to enter any post-CCR pathways and still earn a high school diploma.

Baseline: In order to graduate from public high school, students in Maryland must currently earn 21 credits, including 4 in English, and 3 each in math, science, and social studies (and take 4 years of math if they are enrolled in high school for four years). They must also complete 75 hours of community service and take and pass Maryland High School Assessments (HSA) in Algebra I, English 10, science, and government, or achieve a combined HSA score or complete a Bridge project.

The Maryland High School Graduation Task Force has reported its findings and recommendations to the State Board of Education, which has not yet acted on the recommendations.

Cost: The Maryland State Department of Education may incur some costs to implement this element, but a determination of what, if any, costs may be incurred is not feasible until the State board and/or the Maryland General Assembly decides what, if any, changes it will make to current State graduation requirements. When a cost estimate is feasible, one will be provided to the Commission. Any costs resulting from this element, however, are not expected to be significant.

Element 3g: Develop eleventh and twelfth grade programs for students who do not meet the CCR standard by the end of tenth grade.

Baseline: Transition courses currently exist for students who are not CCR by the end of eleventh 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.

Although the State should provide funding to local school systems to implement programs for students who do not achieve the CCR standard by

the end of tenth grade, any funding should still provide an incentive to get as many students as possible to achieve the CCR standard.

Categorical funding of \$500 for each junior or senior who has not reached the CCR standard should be provided to local school systems to implement transitional courses that help those students reach CCR by the time they graduate. As this amount is half of the per student funding amount for students who reach CCR, it still creates a financial incentive for local school systems to get students to the CCR standard.

In year 1, 70% of eligible students will not have reached the CCR standard; this figure gradually reduces to 35% by year 10.

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

Cost:

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

Elements 3h and 3i: Establish a CTE Committee with dedicated staff and a Skills Standards Advisory Board.

Baseline: Currently there are no dedicated staff to do the work envisioned for the CTE Committee.

Assumptions: There is a CTE Committee with a dedicated staff, which monitors the progress of CTE in Maryland, including timely implementation of the Commission's recommendations. The Committee's staff will obtain and analyze data on the CTE system's performance and that of participating students. The staff will also assist the board with assembling data for the Committee to create a robust array of CTE opportunities, including the organization-appropriate industry groups to establish the standards and criteria by which candidates will be evaluated for credentials. Finally, the staff will also manage and distribute CTE-related grants including \$2 million in existing Career and Technology Education Innovation grants from Chapter 361 of 2018 (House Bill 1415).

Cost:

- \$470,400 for five CTE Committee staff beginning in year 0
 - one executive director
 - two research analysts
 - one grants administrator/budget analyst
 - one support staff
 - includes communications, supplies, and materials
 - year 0 includes start-up costs, including computers
 - does not include inflation or turnover assumptions
- \$50,000 annual database and other research subscription costs
- \$2 million in existing Career and Technology Education Innovation grants mandated by Chapter 361 of 2018 (House Bill 1415) end after year 4. It is assumed that the framework and pathways will all be in place by year 5; thus the grant program will no longer be necessary.

	Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
Costs	\$482,500	\$470,400	\$470,400	\$470,400
Savings			\$2,000,000	\$2,000,000

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

In school year 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.

Assumes inflation-adjusted starting salary of \$72,855 in fiscal 2021 and held steady thereafter. Health insurance, local retirement, and other fringe benefits are included.

This level of funding could be made available through grants to local education agencies and/or community colleges or other partners to provide career counseling as recommended by the Commission.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
	\$45,011,516	\$45,011,516	\$45,011,516

Element 3k: Local school systems are encouraged to provide CTE instruction in Comprehensive CTE high schools and regular comprehensive high schools. They are encouraged to convert existing Career and Technology Centers into Comprehensive CTE high schools as resources become available; if necessary, school systems may consider developing regional CTE high schools that serve students from more than one school system.

Baseline: 6 local school systems operate 14 comprehensive CTE high schools as envisioned by the Commission (in which all students participate in a CTE pathway). However, 15 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 to meet an increase in demand for CTE programs. Local school systems with CTE centers may need to close/convert those centers as resources become available.

Cost: Construction/conversion of CTE high schools will occur within existing funding levels for the Public School Construction Program, which is encouraged to give priority to projects that build new CTE high schools or convert existing centers to full-service schools. Therefore, no additional capital expenditures are anticipated, but other school construction projects may be delayed or deferred.

Element 3l: The entire CTE system will be informed by a close relationship between CTE providers and the State's economic development, workforce development, and labor agencies.

Assumption: The close relationship envisioned by the Commission will be achieved through the CTE Committee and Skills Standards Advisory Board, which will work in conjunction with the Governor's Workforce Development Board and include representatives from all key stakeholder groups.

Cost: There is no added cost to implement this element.

Element 3m: Funds from local, State, and federal sources will be used to support development and delivery of course and program progressions approved by the CTE Committee that lead to industry credentials.

Assumption: Implementation of the post-CCR pathways will include this element.

Cost: There is no added cost to implement this element.

Policy Area 4

More Resources to Ensure Success for All Students Cost Estimates

Element 4a: Add a concentration of poverty weight to support intensive services for students and families to meet the additional needs of students in schools located in distressed communities. Add fixed, categorical funding amounts for community schools and health and behavioral health services.

Baseline: A compensatory education funding formula provides additional resources for kids who are at promise of succeeding. Free and reduced-price meal (FRPM) status of a student is used as a *proxy* for these students. Chapter 361 of 2018 established the Learning in Extended Academic Programs grant which provides a total of \$4.5 million in grants to schools within certain poverty levels (at least 80% FRPM) to provide after-school, weekend, or summer programs to students at promise of achieving academic requirements.

Assumptions: Schools with 55% concentration of poverty will receive 0% of the per pupil amount rising such that schools with 80% concentration of poverty receive 100% of the per pupil amount. This is based on the following observations from the Maryland Longitudinal Data System presentations to the full Commission in July and August of 2018:

- Beginning at 60% concentration, the gap in performance between students who are never in poverty compared to students who are usually in poverty is widest. Above 60% poverty, the performance of students who are never in poverty declines faster than the decline in performance of students usually in poverty.
- Actual dropout rates of all students, including those who are not FRPM eligible, sharply increases in schools with at least 80% poverty concentration; actual High School Assessment Algebra I scores, enrollment in postsecondary school, and on-time graduation sharply declines in schools with at least 80% poverty.

Schools with at least 55% FRPM students will receive funding for (1) community school coordinator; (2) health services practitioner; and (3) per pupil amount for each student in the school regardless of individual poverty status.

In 2016-17 school year there are 557 schools with at least 55% FRPM students. It is assumed this remains steady.

Of the 557 schools, 375 are elementary schools or combined elementary/middle schools. Although the compensatory education weight already provides

resources for one school-based coordinator at elementary schools, this estimate provides a community school coordinator at every school.

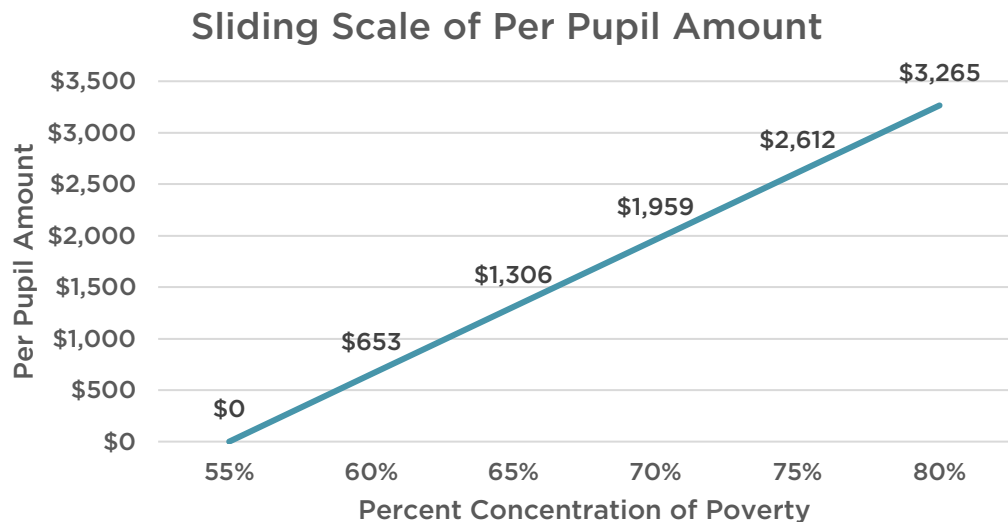
Community school coordinator priced at social worker salary with benefits – \$106,968 in fiscal 2020. These positions are phased in over two years beginning with 219 schools with 80% or more concentration in fiscal 2020 and fully funded with State funds.

The statewide director of community schools hired by the Maryland State Department of Education (MSDE) is assumed to have an annual cost of \$126,170 beginning in fiscal 2021.

Health services practitioner priced at physician’s assistant salary with benefits – \$141,865 in fiscal 2020. These positions are phased in over two years beginning in fiscal 2020 and fully funded with State funds.

Per pupil amount –

- Two per pupil amounts were calculated: \$2,455 for FRPM students and \$3,940 for non-FRPM students in fiscal 2020 dollars.
- Combined per pupil amount of \$3,265 in fiscal 2020 dollars. This combined amount incorporates the resources needed to serve non-FRPM students into the FRPM per pupil amount.
- Phase in the per pupil amount beginning with 0% of the amount for schools with at least 55% concentration up to 100% of the amount for schools with 80% or higher concentration.
- Per pupil applied to all FRPM students.



- This amount begins in fiscal 2022 and is phased in reaching full funding in fiscal 2023.

Below reflects the total amount of funds that a school with 450 students would generate at the given poverty concentrations as well as the total amount on a per pupil basis including the community school coordinator and health services practitioner.

School	Concentration of Poverty	
	Total Concentration of Poverty Grant	Total Concentration of Poverty Per Pupil Amount
50% FRPM	\$0	\$0
55% FRPM	\$248,833	\$553
60% FRPM	\$425,224	\$945
70% FRPM	\$866,012	\$1,924
80% FRPM	\$1,424,341	\$3,165
90% FRPM	\$1,571,280	\$3,492
95% FRPM	\$1,644,749	\$3,655

Note: At 55% FRPM a community school coordinator and a health services practitioner are provided, but 0% of the per pupil amount is provided.

Cost:

	Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
Coordinator	\$23,425,992	\$59,581,176	\$59,581,176	\$59,581,176
Practitioner	\$31,068,435	\$79,018,805	\$79,018,805	\$79,018,805
Per pupil	\$0	\$0	\$483,353,593	\$483,353,593
MSDE coordinator		\$126,170	\$126,170	\$126,170

Schools With At Least 55%, 70%, and 80% of Students Qualifying for FRPM

2016-2017 School Year

County	Total Schools	Sum of Schools >=55%	Sum of Schools> =70%	Sum of Schools> =80%	Total FRPM Students	Sum of FRPM Students >=55%	Sum of FRPM Students >=70%	Sum of FRPM Students >=80%	Total Students	Sum of All Students at >=55% Schools	Sum of All Students at >=70% Schools	Sum of All Students at >=80% Schools
Allegany	24	14	5	2	4,780	2,732	1,090	279	8,630	4,150	1,433	305
Anne Arundel	119	22	11	2	25,836	6,993	3,657	968	82,832	10,219	4,658	1,092
Baltimore City	177	161	145	130	67,023	63,404	58,110	51,145	80,920	71,348	62,867	53,643
Baltimore County	166	75	17	4	49,941	27,232	7,297	1,809	114,055	41,613	9,612	2,178
Calvert	23	0	0	0	3,159	0	0	0	16,009	0	0	0
Caroline	11	5	3	2	3,202	1,328	540	176	5,963	1,878	659	183
Carroll	41	3	0	0	4,923	566	0	0	25,313	939	0	0
Cecil	31	8	4	2	6,792	2,105	1,134	351	15,421	3,016	1,446	437
Charles	38	7	1	0	9,776	2,407	308	0	27,242	3,823	440	0
Dorchester	12	8	6	6	3,458	2,851	2,186	2,186	4,793	3,272	2,288	2,288
Frederick	66	7	3	2	10,901	2,260	1,341	901	42,206	3,181	1,569	974
Garrett	14	5	2	2	1,881	428	117	117	3,963	634	120	120
Harford	55	13	6	3	11,542	5,118	2,442	953	37,875	7,527	3,199	1,145
Howard	75	6	0	0	12,553	1,668	0	0	56,500	2,786	0	0
Kent	5	2	0	0	1,070	387	0	0	2,001	612	0	0
Montgomery	208	51	21	8	55,202	22,385	10,917	4,817	162,095	32,410	13,839	5,701
Prince George's	203	123	77	45	81,055	58,439	38,391	24,851	133,053	77,971	46,804	28,724
Queen Anne's	15	1	0	0	1,987	196	0	0	7,840	310	0	0
Somerset	9	8	6	4	2,417	2,411	2,132	1,705	2,921	2,910	2,409	1,812
St. Mary's	28	5	1	0	5,819	1,586	495	0	18,190	2,503	635	0
Talbot	9	1	0	0	2,098	679	0	0	4,646	1,040	0	0
Washington	47	13	3	1	10,081	4,493	606	119	22,254	6,977	759	119
Wicomico	25	15	8	6	8,956	6,276	3,333	2,396	14,970	8,894	4,050	2,747
Worcester	13	4	0	0	2,816	751	0	0	6,695	1,164	0	0
Grand Total	1,414	557	319	219	387,268	216,695	134,096	92,773	896,387	289,177	156,787	101,468

FRPM: free and reduced-price meal

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

Element 4b: Train school staff in all schools to recognize mental health issues as well as other issues related to trauma and coordinate access to needed mental health and other services for students, as part of effort to increase school safety.

Baseline: Senate Bill 1265 of 2018 requires each local education agency (LEA) to appoint a mental health services coordinator to ensure students are properly referred, maximize external funding, and develop plans to deliver services to students. Most LEAs have assigned those duties to existing staff instead of hiring additional staff, leaving little or no capacity to expand behavioral health services to the extent envisioned by the commission.

Assumptions: Two staff at MSDE to coordinate with school behavioral health coordinator and staff in LEAs. One would be support staff.

Each LEA must hire a full-time behavioral health coordinator; the average salary for individuals hired as behavioral health coordinators is assumed to be \$121,243 including benefits.

Assumed \$25,000 per LEA to train school staff to recognize student behavioral health issues. Assumed \$100,000 for LEAs to implement any coordination with the MSDE health coordinator.

Existing resources are sufficient for screening students to identify behavioral health needs.

Providing access to behavioral health programming and services assumes increasing the ratio of guidance counselors, psychologists, social workers, etc. to industry-recognized ratios: 500-700 students per psychologist, 400 students per social worker, and 250 students per guidance counselor. (Note: social workers are currently staffed at better ratios than industry standard.) Because these ratios are already accounted for in the Augenblick, Palaich, and Associates (APA) recommended base per pupil amount and the compensatory education weight, this item has no additional cost.

The addition of full-time behavioral health coordinators, combined with existing resources, are sufficient for schools to develop partnerships with community resources and experts.

Increase State funding of school-based health centers (SBHC) to \$9 million beginning in fiscal 2021.

- In the late 1990's, the State committed to providing \$6 million to expand SBHC.
- \$2.5 million in State funds, along with other funding sources, supports 83 SBHCs in fiscal 2019.
- Adjusted for inflation, the original State commitment equates to \$9 million.

- This additional \$6.5 million would support up to 216 additional SBHCs in combination with other funding sources that exist currently.

In fiscal 2020 a total of \$2 million would be provided to fund a mental/behavioral health coordinator in each school district. Beginning in fiscal 2021, full funding for each item would be provided.

	Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
MSDE staff to coordinate	See note	\$150,000	\$150,000	\$150,000
Licensed health coordinator in each LEA	See note	\$2,909,832	\$2,909,832	\$2,909,832
Trained staff in each LEA	See note	\$700,000	\$700,000	\$700,000
Screening students	NA	NA	NA	NA
Industry-recognized ratios	NA	NA	NA	NA
School-based health centers	See note	\$6,500,000	\$6,500,000	\$6,500,000

Note: A total of \$2 million would be provided in fiscal 2020.

MSDE: Maryland State Department of Education

LEA: local education agency

Element 4c: Revise funding formula weight for special education students.

Baseline: Actual adjusted State and local expenditures in fiscal 2015 equaled \$1.57 billion, or \$14,982 per special education student. Of this amount, the State provided \$272 million, or 17.3% of the total. The analysis made use of fiscal 2015 special education expenditures reflected in MSDE Selected Financial Data. The objective was to isolate the State and local expenditures related to the special education State aid formula. This involved adjustments to exclude federal funding, expenditures for nonpublic placements and for the Infants and Toddlers program, and include special education fixed charges costs.

Assumptions: A temporary per pupil weight is calculated as a placeholder measure in anticipation of the special education study required by House Bill 1415 of 2018.

The fiscal 2015 adjusted total expenditures of approximately \$15,000 per special education student indicated a weight of approximately 2.2 as compared to the fiscal 2015 current law foundation base of \$6,860. This implied weight

was based on an assumption that the State's full share of the \$15,000 is to be covered via the special education weight. However, special education students are included in the enrollment count for the Foundation Program. Thus, some portion of State funding benefiting special education students is provided via the Foundation Program. Further, it is expected that some portion of State compensatory education formula aid is being used to fund special education expenditures. Also, subsequent analysis of other fiscal years indicates that fiscal 2015 yielded above average per pupil expenditures. Therefore, a weight of 2.2 may be unreasonably high.

Given these concerns, other methods were explored for arriving at a placeholder weight for the special education formula. One method for crediting State foundation formula funding involves figuring what percentage of total State and local expenditures (excluding retirement expenditures) involves instruction, which amounts to about 70%, and multiplying this by the \$6,860 current law base. Subtracting the result of approximately \$4,750 from the estimated \$15,000 results in about \$10,250 to be funded through the special education weight. This would indicate a special education weight of about 1.5. However, this method may overstate the role of the Foundation Program, to the extent that some portion of instructional expenditures for special education students would be in addition to the adjusted \$1.57 billion in expenditures for special education.

Another method for arriving at a placeholder weight accounts for the relative portion of instruction time that special education students spend inside of a regular classroom. Data indicate that using an appropriately weighted average, special education students spend about 77% of instruction time in a regular classroom and 23% of instruction time outside of a regular classroom. Assuming that the \$1.57 billion in adjusted special education expenditures covers time *outside* of a regular classroom, this indicates a weight equivalent to about \$65,000 per pupil for the time outside of a regular classroom. Further assuming that the \$4,750 per pupil explained above for time inside of the regular classroom, we can construct a blended weight: $(\$4,750 * 77\%) + (\$65,000 * 23\%) = \$18,600$ per pupil. Given this blended total, it is assumed that \$4,750 of this is covered by the base (as derived above) and the remaining \$13,850 is to be covered by the weight. This latter amount falls between the \$10,250 and \$15,000 per pupil amounts discussed above. Assuming the \$6,860 fiscal 2015 base, this is equivalent to a special education formula weight of 2.0.

Based upon these estimates, and taking into account concerns related to federal maintenance of effort and maintenance of fiscal support requirements, the Commission decided on a 1.88 placeholder weight with respect to the fiscal 2020 foundation amount (about 2.5 times the current law weight of 0.74), or the equivalent of \$13,619 in fiscal 2020 dollars.

After completion of the study required by House Bill 1415, a new weight will be calculated and presumably incorporated into the funding formulas. It is anticipated this new weight would first be implemented by fiscal 2023. However, for costing out purposes, no assumption of a new weight is incorporated. Instead, the assumptions above are continued through fiscal 2030.

Enrollment of special education students is projected to be 108,407 for fiscal 2020 and increases to 112,242 for fiscal 2030.

Full funding of this placeholder amount is phased in over three years beginning in fiscal 2020.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$275,000,000	\$451,119,602	\$920,423,882	\$926,923,129

The federal Individuals with Disabilities Education Act (IDEA) has two provisions that prevent a decrease in the amount of funding that a state provides for and an LEA spends on special education from year to year: a maintenance of fiscal support and maintenance of effort requirement. Maintenance of fiscal support pertains to the funds the state provides for special education. If a state fails to satisfy this requirement and did not receive a waiver, then federal IDEA funding is reduced. Maintenance of effort pertains to how much each LEA spends on special education. If an LEA fails to satisfy this requirement or meet an allowable exception, then federal IDEA funding will have to be repaid to the federal government.

Note: The Commission also assumed cost savings in special education over time as the recommendations are implemented. See Chapter 5 for further detail.

Element 4d: Revise funding formula weight for English learner students.

Baseline: Additional funding is provided based on the number of English learners. The current weight is for both language acquisition and pupil supports.

APA identified resources:

The following table shows the additional resources identified by APA under the evidence-based and professional judgement study panels. These are resources in addition to the resources identified in the recommended base per pupil amount of \$10,880 (fiscal 2015 dollars).

	Elementary School of 450 students 7% ELL (32 students)	Middle School of 720 students 7% ELL (50 students)	High School of 1,200 students 7% ELL (84 students)
Personnel (FTE)			
<i>Instructional Staff</i>			
Teachers	1.3	2.0	3.4
Instructional Facilitator (Coach)	0.3	0.4	0.7
Other Costs (per student amounts)			
Supplies, Materials, and Equipment	\$100	\$100	\$100
District-level Support (Center Program, Contracted Translation Services)	\$100	\$100	\$100

ELL: English language learners

FTE: full-time equivalent

Working Group 4 expressed concern that changes at the federal level relating to immigration status of documented and undocumented students will result in an undercounting of students for compensatory education purposes. It may be necessary to adjust the APA-recommended English learner (EL) weight to ensure that students who would otherwise qualify for compensatory education would receive the resources they need to be successful. It will be important to establish methods to identify low income immigrant students.

Therefore, the Commission is recommending that the pupil supports identified for compensatory education students be incorporated into the weight for EL students. This would mean that simply qualifying as an English learner would ensure that the students receive both language acquisition and the supports provided for FRPM students if needed.

Assumptions: The APA recommended base of \$10,880 in fiscal 2015 dollars was inflated to \$11,490 in fiscal 2020 dollars using the actual inflationary amounts that were applied to the existing funding formula. This amount was held steady beyond fiscal 2020.

The APA recommended English learner weight for language acquisition only plus the pupil supports that compensatory education students receive as recommended by APA results in each student being funded at \$18,614 in fiscal 2020.

The pupil supports provide resources for a family liaison function as recommended by the Commission.

Current law foundation base is \$7,244 in fiscal 2020. Current law EL weight results in each student being funded at \$14,416 in fiscal 2020.

Recommended EL per pupil cost is an additional \$4,198 in fiscal 2020 dollars and then held steady.

Enrollment of English learner students is 85,280 for fiscal 2020 and projected to increase to 162,551 by fiscal 2030.

Full funding is phased in over two years beginning in fiscal 2021.

Cost:

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$0	\$191,563,083	\$495,249,800	\$682,359,001

A concomitant adjustment is made for the compensatory education formula. Specifically, the enrollment count used to calculate the compensatory education formula will only include those students who are *not also* EL students (*i.e.*, unduplicated). In fiscal 2020 about 76% of EL students are also compensatory education students.

Element 4e: Revise funding formula weight for compensatory education students.

Compensatory Education: Provides additional resources for instructional and intervention support, social and emotional support from counselors and social workers, and extended learning time through before- and after-school programming as well as summer school (referred to as “pupil supports”).

APA Identified Resources: The following table shows the additional resources identified by APA under the evidence-based and professional judgement study panels. These are resources in addition to the resources identified in the recommended base per pupil amount of \$10,880 (fiscal 2015 dollars).

Calculations:

- All personnel full-time equivalent (FTE) resources were multiplied by the 2014-15 salary and benefit amounts by position.
- Additional per student figures were then added for supplies and materials, additional programs (such as before and after school and summer school), and district-level costs.

	Elementary School of 450 Students 50% Comp. Ed. (225 students)		Middle School of 720 Students 50% Comp. Ed. (360 students)		High School of 1,200 Students 50% Comp. Ed. (600 students)	
	FTE	Cost per Student	FTE	Cost per Student	FTE	Cost per Student
Personnel (FTE)						
<i>Instructional Staff</i>						
Teachers	2.0	\$748	3.0	\$701	5.0	\$701
Instructional Facilitator (Coach)	1.0	374	1.0	234	2.0	281
Teacher Tutor/Interventionist	1.0	374	2.0	468	3.0	421
<i>Pupil Support Staff</i>						
Counselor, Social Worker, PPW, Behavior Specialist, etc.	2.0	820	3.0	769	5.0	769
<i>Administrative Staff</i>						
Dean			1.0	305	1.0	183
Clerical/Data Entry						
<i>Other Staff</i>						
School-based Site/Service Coordinator	1.0	453				
Other Costs (per student amounts)						
Supplies, materials, and equipment		\$100		\$100		\$100
Additional programs (summer school, before and after school, etc.)		1,537		1,537		1,537
District-level (alternative school)		125		125		125
Total		\$4,531		\$4,238		\$4,116

FTE: full-time equivalent

PPW: pupil personnel worker

- A combined per student total was calculated based upon the percentage of students at each grade band (elementary, middle, and high school).

Compensatory Education Per Student Amounts and Weight			
Elementary School	\$4,531	x 46% (6 out of 13 grades)	\$2,084
Middle School	\$4,238	x 23% (3 out of 13 grades)	\$975
High School	\$4,116	x 31% (4 out of 13 grades)	\$1,276
Combined Subtotal			\$4,335

- The combined figure was reduced by available federal funds (\$527) generating the additional dollars needed per student, \$3,808 above the base amount.
- Dividing that amount (\$3,808) by the APA base amount (\$10,880) produces an additional weight of 0.35.
- The total dollars available for each student is therefore \$14,688 (\$10,880 + \$3,808).
- If the base amount were lower, the total amount per student of \$14,688 would be divided by the lower base amount, producing a higher weight. This approach will be taken to ensure that these students have the same overall level of resource regardless of the base amount.

Combined subtotal, reduced by available federal funds (\$527)	\$3,808
Expressed as an additional weight above the \$10,880 base	0.35
Total Amount Per Student	\$14,688

For the Commission's work, this figure was inflated to fiscal 2020 dollars for a per student figure of \$15,511.

Baseline: Additional funding is provided based on the number of FRPM students. Total funding generated by all FRPM students was calculated under current law resulting in a total of \$5.4 billion in fiscal 2020. This includes the foundation amount.

Assumptions: Total funding generated by applying the APA recommended base to *all FRPM students* and the APA recommended compensatory education weight to *an unduplicated count of FRPM students who are not also EL students* results in a total of \$5.6 billion in fiscal 2020. This includes the foundation amount.

The difference between the above and current law was taken in each year.

The number of compensatory education students is 365,779 in fiscal 2020 and projected to increase to 381,260 by fiscal 2030. Full cost is phased in over two years beginning in fiscal 2021. By fiscal 2030, due to modest enrollment growth and the phase-in of a higher base, costs are estimated to decrease.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$0	\$92,715,733	\$113,386,029	(\$19,627,171)

Policy Area 5

Governance and Accountability Cost Estimates

Element 5a Independent Oversight Board with dedicated staff that will sunset at the end of the implementation period specified in the enabling legislation.

Baseline: Currently there is no independent Oversight Board.

Assumptions: There is an independent Oversight Board with 15 dedicated staff as specified below. The estimate also includes \$200,000 in annual consultant fees for program evaluations totaling \$2 million over 10 years. After 10 years it is assumed that the oversight board will be dissolved.

Costs: The Oversight Board consisting of 15 staff is estimated to cost approximately \$1.8 million annually for 10 years.

- \$1.8 million for 15 independent Oversight Board staff beginning in year 1 (start-up and partial-year costs beginning in year 0)
 - 1 executive director
 - 2 lead professional staff
 - 2 assistant Attorney General legal staff
 - 1 support staff
 - estimate includes communications, supplies, and materials
 - year 0 includes start-up costs including computers
 - does not include inflation or turnover assumptions
 - the estimate also includes \$200,000 in annual consultant fees beginning in year 1 for program evaluations totaling \$2 million over 10 years.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000

Element 5b: Expert Review Teams will conduct on-site investigations of the causes of poor student performance and make recommendations for correcting the problems identified on measures that need to be taken to improve the performance of these low-performing schools.

Costs: The costs associated with Element 5b are accounted for under Element 3a.

Element 5c: There is a Career and Technical Education (CTE) Committee with a dedicated staff, which monitors the progress of career and technical education in Maryland as described in Policy Area 3.

Costs: The costs associated with Element 5c are accounted for under Elements 3h and 3i.

Element 5f: Not less than 75% of enrollment-based formula funds allocated to school systems or schools on the basis of the needs of students enrolled in the school will flow down to the school for use by the school to educate the children in that school.

Costs: It is estimated that it will cost \$2.5 in each of year 1 and 2 for MSDE to develop a financial information system to monitor that at least 75% of enrollment-based formula funds flow down to educate the children in that school. Annual maintenance costs for the system beginning in year 3 are estimated at \$250,000.

Year 0 (FY 2020)	Year 1 (FY 2021)	Year 5 (FY 2025)	Year 10 (FY 2030)
\$0	\$ 2,500,000	\$ 250,000	\$ 250,000



Photograph of Members of the Commission and staff courtesy of the Office of the Governor. Not shown are Dr. Robert L. Caret, Mr. Scott E. Dorsey, Senator Richard S. Madaleno, Jr., Mr. Craig L. Rice, and Superintendent Karen B. Salmon.