Student Outcomes Achievement Report (SOAR)

September 2021

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Student Outcome and Achievement Report (SOAR)

First-year College Performance of 2013 Academic Year Maryland Public High School Graduates

Executive Summary
The Student Outcome and Achievement Report (SOAR) is a response to a 1988 charge to the Maryland Higher Education Commission (MHEC) from Maryland's General Assembly to "improve information to high schools and local school systems concerning the performance of their graduates at the college level." This report is a response to the initial charge and the result of collaboration between MHEC and the Maryland Longitudinal Data System Center (MLDSC), wherein MLDSC provided MHEC with relevant K-12 and higher education data, in aggregated form.

This report examines the academic performance of Maryland public high school 12th grade graduates (spring 2013 graduates) who immediately enrolled in a Maryland college or university in the subsequent year. This edition of the Student Outcome and Achievement Report (SOAR) summarizes findings on these students. Key findings include:
- Some "college ready" high school graduates were assessed to need remedial courses in their first year.
- Most "college-ready" students enrolled full time, and half completed 12 or more credits in the first term.
- "College-ready students" earn a B- grade point average in their first year of college.
- About one-third of "college-ready" students enroll in their first credit-bearing math class in the first semester; almost one-half attempt their first credit bearing English class in the first term. The majority of all pass this first class.

The findings from this analysis suggest that Maryland must continue to focus on addressing issues tied to preparing recent high school graduates for college-level work and ameliorating the need for these students to enroll in remedial coursework.

Introduction and History of the Student Outcomes Achievement Report
The Student Outcome and Achievement Report (SOAR) is a response to a 1988 charge to the Maryland Higher Education Commission (MHEC) from Maryland's General Assembly to "improve information to high schools and local school systems concerning the performance of their graduates at the college level." In the 1990s, SOAR reports provided key stakeholders of Maryland's educational system with the information on and analysis of recent high school graduates who attend in-state colleges and universities; these data included the proportion of students who required developmental coursework at enrollment and first-year academic data. In addition, self-reported standardized test data and high school data provided by the Maryland State Department of Education (MSDE) were included in an effort to better understand factors that might have influenced their postsecondary performance.

The last report was published in 2011, and the conclusions contained recommendations and observations about the future of the SOAR. These included partnership with the then newly created Maryland Longitudinal Data Systems Center (MLDSC), a state agency charged with collecting, organizing, and analyzing student and workforce data from all levels of education and the State's workforce to help guide decision makers regarding the State's education systems. In addition, it was recommended that MHEC obtain input from MSDE and local school systems (LSS) on how SOAR might be changed to increase its value for school districts and high schools.

MHEC responded to a 2013 Joint Chairmen's Report (JCR) to review the SOAR in order to improve its utility to stakeholders. MHEC reported that it had convened a workgroup consisting of representatives from K-12 education, higher education, and the MLDSC. The resulting recommendations for future reports included relying on course-level data supplied by the Maryland State Department of Education (MSDE) to help better identify college-ready students and using PARCC (Partnership for the Assessment of Readiness for College and Career) scores, and analyzing credit-eligible high school curriculum (e.g., AP, IB) to deepen the analysis when those data became available. The workgroup concluded that fully actualizing the recommendations made would take several years due to the fact that a number of the suggested data elements were just in the beginning stages of being collected by MSDE.

This report[1] is a response to the initial charge and the result of collaboration between MHEC and the MLDSC, wherein MLDSC provided MHEC with relevant K-12 and higher education data, in aggregated form. Although some data elements recommended in the 2013 review are not available (e.g., course-level high school data and PARCC scores), MLDSC did provide aggregated student, LSS, and college-level data for analysis and reporting.

Purpose of the Report

This report examines the academic performance of Maryland public high school 12th grade graduates during their first year of enrollment at a Maryland college or university. This edition of the Student Outcome and Achievement Report (SOAR) attempts to answer several questions related to these students. They include:

- What are the characteristics of those students who graduated from a Maryland public high school in Spring 2013?
- What are the characteristics of those who subsequently enrolled in a Maryland college or university in Fall 2013?
- Of these students, what are some of their outcomes in and after their first year of post-secondary enrollment? How do these outcomes differ among students identified as "college ready?"

Student post-secondary outcomes include second-year retention, rates of remediation, grade point average, and successful academic progress.

Who Are the Students Included in This Study?

The population of interest for this report is shaped first by those who graduated from a Maryland public high school in 2013. This population includes those who graduated 12th grade with a high school diploma in Spring 2013.[2] In 2013, 57,466 students graduated from a Maryland public high school.

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[1] This is the final SOAR. Moving forward, the information on the performance of Maryland high school graduates in college will be available through the MLDS Center Website, including dashboards, reports, and other output. The Center will work with MSDE, MHEC, and other stakeholders to ensure that the Center output adequately informs high schools and local school systems concerning the performance of their graduates at the college level.

[2] It is important to note that this population is comprised of students who all completed high school at the same time; this allows the capture of all students who met the graduation requirements at that time, versus relying on a cohort

Program Completion Types
The research further distinguishes these students by the graduation requirements they fulfilled to earn a diploma. In Maryland, students complete one of four programs to fulfill graduation requirements. These are: University System of Maryland (USM) graduation requirements, Career and Technology Education (CTE) graduation requirements, USM/CTE graduation requirements, and "Other" graduation requirements. Each are described below.

Public high school students who successfully fulfill the admissions requirements for the University System of Maryland (USM)[3] graduate from high school with the program completion type of USM. This program completion does not guarantee students admission to the System institutions but is meant to signify, through its high school curriculum requirements, that admissions standards were met. For this research, 35,990 (62.6%) of the high school graduates graduated with a USM program completion type in 2013.

Table 1: Distribution of Maryland Public High School Graduates by Program Completion: 2013

Maryland Public High School Graduates 2013	Fulfilling University System of Maryland (USM) Course Graduation Requirements		Fulfilling Career and Technology Education (CTE) Program Graduation Requirements		Fulfilling both University System of Maryland and Career and Technology Education Program Graduation Requirements (USM/CTE)		Fulfilling "Other" Graduation Requirements	
#	#	%	#	%	#	%	#	%
57,466	35,990	62.6%	4,731	8.2%	6,575	11.4%	10,170	17.7%

Maryland public high school students may complete the requirements for an approved Career and Technology Education Program of Study (a CTE program completion).[4] The course of study for students pursuing CTE program completion varies by program and by Maryland public high school, but the intention of this course of study is for each student to earn industry-recognized credentials and college credit while in high school. High school graduates who graduate with a CTE program completion may or may not need additional postsecondary education or training in

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model (e.g., all those who entered 9th grade in 2009) and can account for those who either completed early or entered high school after 2009. This measure may differ from the Maryland State Department of Education (MSDE) definition of a high school graduate.

[3] In 2013, the USM admission requirements were the following: four or more years of English, two or more years of natural science, three or more years of social science/history, two or more years of a foreign language, and three or more years of math (which included Algebra, Algebra II, and geometry). They were revised in the interim and now are the following: four or more years of English, three or more years of science, three or more years of social science/history, two or more years of a foreign language, and four or more years of math (including Algebra, Algebra II, and geometry).

[4] http://marylandpublicschools.org/programs/Pages/CTE/CTEprograms.aspx

order to pursue their career interests. Of the high school graduates in this analysis, 4,731 (8.2%) graduated with a CTE program completion type only.

Maryland public high schools also allow students to graduate by fulfilling the requirements of both USM and the CTE programs; to do so, a student must meet all requirements for both programs. In 2013, 6,575 (11.4%) of the graduates had the program completion type of USM and CTE. Lastly, Maryland high schools may award diplomas to their graduates that fall outside of the USM or CTE categories. In 2013, 10,170 (17.7%) students graduated by fulfilling other program requirements.[5]

Demographics
Of these 57,466 students in this analysis, almost half were white (46.4%), and another one-third (33.7%) were African American. Hispanic and Asian students made up smaller percentages (9.6% and 6.3% respectively). The graduates were almost exactly half men and half women (49.1% and 50.9% respectively). More details regarding the demographic and academic profile of these high school graduates are included in Table 2.

Table 2: Demographic and Academic Profile of Maryland Public High School Graduates: 2013

		2013 12th grade graduates	
Demographic and Academic Characteristics		%	#
Gender	Male	49.1%	28,222
	Female	50.9%	29,244
Race/ Ethnicity	Hispanic	9.6%	5,494
	African American	33.7%	19,343
	Asian	6.3%	3,611
	White	46.4%	26,674
	Other	4.1%	2,344
Free and Reduced Price Meal Status (FARMS)	Eligible	30.7%	17,632
	Not Eligible	69.3%	39,834
Program Completion Type	USM	62.6%	35,990
	CTE	8.2%	4,731
	USM & CTE	11.4%	6,575
	Other	17.7%	10,170
	Total		57,466

Note: Free and Reduced Price Meal Status (FARMS) is administered by the U.S. Department of Agriculture (USDA) and the Maryland State Department of Education; the program provides free and reduced price meals to school children, and eligibility is tied to family income and family size. It can be used as a proxy for identifying economically disadvantaged students.

A distribution of Maryland public high school graduates by Local School System (LSS) can be found in the appendices. Table 1 in the Appendix provides a distribution of both the number of

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[5] Due to the nature in which the program completion data are collected, it is possible that those who are indicated to have completed an "other" program actually completed a USM, CTE or USM/CTE program but there was an error in data entry, thereby placing these records in the "other" category. For most of the analysis, this program completion type will be combined with the CTE program completion type to reduce the need for suppression.

high school graduates per LSS and the number and percentage by LSS of those who enrolled in a Maryland college or university in Fall 2013. Tables 2 through 5 provide a distribution, by LSS, of college enrollment by the four program completion types discussed above.

The College Enrollment Profile- Immediate College Enrollment
Of the 57,466[6] students who met the Maryland public high school graduation requirements in Spring 2013, 23,784 (41.3%) subsequently enrolled in a Maryland college or university in Fall 2013. Another 12,000 enrolled in an out-of-state college or university.[7]

The group analyzed for this report are those 23,784[8] students who graduated from 12th grade from a Maryland public high school in 2013 who subsequently enrolled in a Maryland college or university. Table 3 provides demographic and academic characteristic data for these students.

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[6] The population of interest has been defined as the number of students who satisfied the graduation requirements for a Maryland High School Diploma in 2013; students receiving a Maryland High School Certificate of Program Completion are excluded from this analysis as less than 1% subsequently enrolled in a Maryland college or university.

[7] Initial Postsecondary Enrollments – In-State vs. Out-of-State. Maryland Longitudinal Data System Center. https://mldscenter.maryland.gov/Dashboards.html

[8] 23,784 represents the number of student records that match when MHEC and MSDE data are merged; there is the possibility that, due to errors in unique identifiers, not all high school graduates were matched. Because not all records may have matched, this figure may underestimate the number of graduates who enrolled in a Maryland college or university in Fall 2013.

Table 3: Demographic and Academic Profile of Maryland Public High School Graduates who Enrolled Fall 2013 in a Maryland College or University

			2013 12th grade Maryland public high school graduates		12th grade Maryland public high school graduates who enrolled Fall 2013 in MD institution	
Demographic and Academic Characteristics			%	#	%	#
Gender		Male	49.1%	28,222	46.8%	11,122
		Female	50.9%	29,244	53.2%	12,662
Race/ Ethnicity		Hispanic	9.6%	5,494	8.6%	2,055
		African American	33.7%	19,343	31.0%	7,363
		Asian	6.3%	3,611	8.8%	2,104
		White	46.4%	26,674	46.9%	11,143
		Other	4.1%	2,344	4.7%	1,119
Free and Reduced Price Meal Status (FARMS)		Eligible	30.7%	17,632	26.5%	6,311
		Not Eligible	69.3%	39,834	73.5%	17,473
Program Completion Type		USM	62.6%	35,990	69.0%	16,401
		CTE	8.2%	4,731	4.5%	1,069
		USM & CTE	11.4%	6,575	13.5%	3,212
		Other	17.7%	10,170	13.0%	3,102
		Total		57,466		23,784

Note: Free and Reduced Price Meal Status (FARMS) is administered by the U.S. Department of Agriculture (USDA) and the Maryland State Department of Education; the program provides free and reduced price meals to school children, and eligibility is tied to family income and family size. It can be used as a proxy for identifying economically disadvantaged students. This FARMS measure is for 12th grade only. Non-FARMS students may have been FARMS in prior grades.

For most demographic characteristics, the students who enrolled in a Maryland college or university the fall after high school were fairly representative of those who graduated high school. That said, a lower percentage of students who completed the CTE program enrolled in college. This is not surprising as CTE programs, by their nature, aim to prepare and train high school students for the workforce immediately after high school, thereby reducing their need to enroll in further post-secondary education.

Which Colleges and Universities Do Students Enroll in?
Regardless of program completion type, the majority of the 23,784 high school graduates enrolling in a Maryland institution enrolled in a community college the fall after graduation (13,600 or 57.2%). Approximately one-third (8,717 or 36.7%) enrolled in a Maryland public four-year college or university and the remaining students enrolled in a state-aided independent

institution (6.2%) or a private institution[9] in the State (<=1%) (see Table 6 in Appendix for enrollment figures for each institution).

Table 4: Enrollment in Maryland Institutions by Maryland Public High School Program Completion Type

	Maryland Community Colleges		Maryland Public Four-Year Institutions		Maryland State-Aided Independent Institutions/ Private Institutions		
	#	%	#	%	#	%	Total
USM Program Completion	8,377	51.1%	6,865	41.9%	1,159	7.1%	16,401
CTE Program Completion	937	87.7%	109	10.2%	23	2.2%	1,069
USM/CTE Program Completion	1,937	60.3%	1,044	32.5%	231	7.2%	3,212
Other Program Completion	2,349	75.7%	699	22.50%	54	1.7%	3,102
Totals	13,600	57.2%	8,717	36.7%	1,467	6.2%	23,784

When analyzed by program completion type, students who completed a USM or USM/CTE program were distributed similarly to the statewide totals; conversely those that completed a CTE program or "other" program were represented a bit more heavily in the community colleges.

The majority (19,613 or 82.5%) of those who graduated from a Maryland public high school and attended a Maryland college or university completed a college preparatory high school program (USM Program or a USM/CTE Program). Regardless of program completion, almost 6 in 10 enrolled in community college after graduating.

What is the Academic Profile of Those High School Graduates Who Immediately Enroll in a Maryland College or University?

High school data was collected at the time of Maryland college enrollment for the 23,784 students in this study. They are summarized in Table 5. These students, overall, performed higher than the national average on the ACT (American College Test) and the SAT (Scholastic Aptitude Test) standardized college admissions tests.[10]

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[9] Private undergraduate institutions in Maryland include small, non-profit single-sex, religiously affiliated institutions or for-profit institutions. For the remainder of the report, analysis of students enrolled at these institutions will be combined with the State-Aided Independent Institutions.

[10] Average ACT scores nationwide for 2013 graduates were 20.9 (Math), 20.2 (English), 21.1 (Reading), 20.7 (Science) and 20.9 (Composite). Per http://www.act.org/content/dam/act/unsecured/documents/Natl-Scores-2013-

Table 5 also includes the rates of students assessed to need remediation in three key college subjects: math, reading, and English. Remedial education, which can also be called developmental education, focuses on advancing underprepared students' literacy skills (English and reading) or math skills. Maryland's colleges and universities assess students' need for remedial education in several ways; they may use the results of standardized test scores supplied at admission (e.g., the SAT or ACT scores), the results of standardized tests administered at admission (e.g., the Accuplacer or Compass assessments), high school grades/GPA, or a combination of these measures.[11]

According to these data, two out of every five students (43.8%) were assessed, by their enrolling institution, to need remedial education in math. One out of every five students were assessed to need remedial education in reading or English.

Table 5: Academic Profile at Time of Enrollment in a Maryland Institution

Academic Profile of the Maryland Public High School Graduates Enrolled in Maryland Higher Education Institution, Fall 2013		% or Average	#
ACT[12]	Math	23	2,299
	English	22	2,295
	Reading	23	2,285
	Science	23	1,917
	Composite	23	2,100
SAT	Math	554	11,431
	Reading	553	11,135
	Writing	535	10,631
Requires Remediation	Math	43.8%	10,428
	Reading	20.5%	4,871
	English	20.8%	4,953
Degree Level Pursued at Time of Enrollment	Certificate	3.0%	714
	Associate	54.2%	12,888
	Bachelor's	42.8%	10,182

Maryland.pdf. Average national SAT scores for 2013 were 514 (Math), 496 (Reading), and 488 (Writing). From http://media.collegeboard.com/digitalServices/pdf/research/2013/TotalGroup-2013.pdf.

[11] This cohort of students would have graduated high school before the College and Career Readiness and College Completion Act of 2013 (CCR-CCA) took full effect; this bill, in part, requires Maryland public high schools to assess students prior to graduation and place them in transition courses for those found in need of additional support and preparation. See "*Tool Kit to Determine Students College and Career Ready under the College and Career Readiness and College Completion Act of 2013.* Maryland State Department of Education" for more information. This study also precedes the Memorandum of Understanding (MOU) between the Maryland Association of Community Colleges and the Public-School Superintendents Association of Maryland, which established common benchmarks for college readiness.

[12] Test score data were not available for approximately 50% of the sample; drivers of this may be data quality (institutions providing incomplete files) and admissions standards (community colleges do not require standardized test scores for admission).

Lastly, of the 23,784 students, over one half (54.2%) enrolled in college with the intent to pursue an associate degree. A slightly smaller percentage (42.8%) enrolled at a four-year institution with the intention of earning a bachelor's degree. Only 3.0% enrolled to pursue a lower division certificate. These patterns mirror, almost exactly, the in-state post-secondary enrollment distributions presented in Table 4 (page 7).

Defining "College Ready"
Before the post-secondary outcomes for these students can be analyzed further, it is important to establish how "college ready" was defined for this work using the high school data provided by MLDSC. To help answer questions tied to the college readiness of high school graduates and their subsequent performance in their first year at a Maryland college or university, this analysis relied on the USM program completion type as a marker of college readiness.

By their nature, the high school graduation requirements for the USM diploma program completion meet or exceed standards for student learning in the State as defined by the admissions requirements to a USM institution. [13] For this report, they included:
- Four years of English
- Two or more years of natural science
- Three or more years of social science/history
- Two or more years of a foreign language
- Three or more years of math (including Algebra I, Algebra II, and geometry)

Therefore, those students who graduated with a USM program completion (either solely the USM program or the USM/CTE program) were considered "college ready" because they met the requirements. [14]

The remainder of this report will explore several measures of college success for the populations under study. These measures include remediation, retention, and course performance in the first year of college. Analysis combines those students who graduated with either a USM or USM/CTE program completion in a category considered "college ready." The additional category of program completion type, CTE/Other, is included, as well, to aid in differentiating the college-ready population from the remaining college-going population.

The findings are discussed in the following pages. They address the final research question of this report:

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[13] These requirements were altered in 2009 and applied to students who entered 9th grade in fall 2011; students in this study likely entered high school in 2009. The revision requires four years of high school math, including an "algebra intensive" math course the final year of high school so as to sustain students' math skills for college-level work. https://www.usmd.edu/newsroom/news/1021
[14] Combining these two diploma types allows for a more robust sample and results in much less data suppression. Table 7 in the appendices shows rates of students assessed to need remediation by the four diploma types; rates of those needing remediation are fairly similar when comparing USM and USM/CTE diploma types. Similarly, CTE diploma earners and Other diploma earners are comparable in rates of needing remediation.

Of those students who graduated from a Maryland public high school in Spring 2013 and subsequently enrolled in a Maryland college or university in Fall 2013, what are some of their outcomes in and after their first year of post-secondary enrollment? How do these outcomes differ among students identified as "college ready?"

Implications of the findings will be summarized at the end.

Finding 1: Two in five college-ready students were assessed to need remediation.

As discussed earlier in this report, MHEC collects data identifying those who were assessed to need remedial coursework in math, reading, and/or English. Table 6 shows that, overall, approximately half of the students who graduated high school and enrolled in a Maryland college or university in 2013 were assessed to need remediation in math, English, and/or reading. This differs when comparing students by program completion type. These data show that 42.2% of those seen as college ready were assessed to need remediation; conversely, 77.2% of those with a CTE or Other program completion were assessed to need remediation.

Table 6: Students Assessed to Need Remediation by Program Completion Type

Program Completion Type	Enrolled in a Maryland Institution from Baseline Population	Unique students needing remediation	Overall Rate of Remediation	Math Remediation	% Needing Math Remediation	English Remediation	% Needing English Remediation
USM and USM/CTE	19,613	8,269	42.2%	7,415	89.7%	3,183	38.5%
CTE/Other	4,171	3,220	77.2%	3,010	93.5%	1,754	54.5%
Total	23,784	11,489	48.3%	10,425	90.7%	4,937	43.0%

This table also shows that, of those who were identified as needing remediation, the vast majority needed remediation in math. Comparatively, fewer students needed remediation in English or reading.

Table 8 in the Appendix shows these data by LSS. Note that some data are suppressed in an effort to protect student privacy.

Finding 2: Most college-ready students enrolled full time, and half completed 12 or more credits in the first term.

Students' enrollment patterns in the first year of college can be a predictor of persistence and eventual completion. This stands to reason, as enrollment can serve as a signal regarding the resources (e.g., time, money) students have and the constraints they may or may not face (e.g., job, family responsibilities). The majority of college-ready students (74.5%) enrolled full time[15]

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[15] Part- or full-time enrollment status was provided by the institutions and reflects students' enrollment at the end of the drop/add period.

for Fall 2013 term, which is likely driven in large part by the institutions they enrolled in; the majority of four-year institutions in Maryland enroll more full-time students than part time.[16]

Table 7: Maryland Public High School Graduates, 2013, Enrollment in a Maryland Institution Fall 2013 by Program Completion Type

Program Completion Type	Enrolled Full-Time	%	Enrolled Part-Time	%
USM & USM/CTE	14,617	74.5%	4,996	25.5%
CTE & Other	2,284	54.8%	1,887	45.2%
Total	16,901	71.1%	6,883	28.9%

And by the end of the term, almost half (53.9%) of the college-ready students had earned 12 or more credits (Table 8).[17] The difference in enrollment status versus credit earning at the beginning of the term may be driven, in part, by remediation. Traditional remedial coursework is non-credit bearing and therefore would not appear in these data. While more and more institutions are moving to co-requisite remediation (where students take a credit-bearing course in the remedial subject and receive extra support), this has been a more recent phenomenon and would not have been in place at many institutions in Fall 2013. Table 9 in the Appendix has these data by Local Education Agency.

Table 8: Credits Earned in Maryland Institutions Fall 2013 by Program Completion Type

Program Completion Type	Had Credit Data, Fall 2013	Earned 15+ Credits, Fall 2013	%	Earned 12 to 14.9 Credits, Fall 2013	%	Earned Less than 12 Credits, Fall 2013	%
USM & USM/CTE	19,278	5,168	26.8%	5,226	27.1%	8,884	46.1%
CTE & Other	4,078	239	5.9%	540	13.2%	3,299	80.9%
Total Maryland Public High School Graduates, 2013 Enrolled in a Maryland College	23,356	5,407	23.2%	5,766	24.7%	12,183	52.2%
Note: The less than 12 credits measure includes students who were reported to have earned 0 credits. Not all course data may have been submitted at the time of the data extraction; students recorded as earning 0 credits may have earned credit in the semester that was not reported.							

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[16] See Appendix 6 for enrollment by institution; note that the University of Maryland Global Campus and University of Baltimore, which both enroll a greater proportion of part-time undergraduates, enrolled 0.8% of the sample for this analysis.

[17] Credit data was reported at the end of the term by institutions.

Finding 3: About one-third of college-ready students enroll in their first credit-bearing math class in the first semester; almost one-half attempt their first credit bearing English class in the first term. The majority of all pass this first class.

Enrollment in and successful completion of "gateway" credit-bearing courses such as math and English in the first term can be an early signal of college student persistence and completion. As Table 9 shows that of those college-ready students who attempt their first credit-bearing math or English course in the first term, the vast majority pass the course. These rates, may be affected in part, by the need for remedial coursework explored earlier in this report. This measure captures credit-bearing courses only, and those needing remedial math and/or English would have to enroll and pass their remedial class before being able to enroll in a credit-bearing course. Table 10 in the Appendix has these data by Local Education Agency.

Table 9: Maryland Public High School Graduates, 2013, Performance in Credit-Bearing Math and English Courses at Maryland Institutions, in the First Term by Program Completion Type

Program Completion Type	College Enrollees, Fall 2013	Unique Students Attempting First Math, Fall 2013	%	Unique Students C or Better First Math, Fall 2013	%	Unique Students Attempting First English, Fall 2013	%	Unique Students C or Better First English, Fall 2013	%
USM & USM/CTE	19,613	7,171	36.6%	6,017	83.9%	10,376	52.9%	8,909	85.9%
CTE & Other	4,171	400	9.6%	261	65.3%	1,614	38.7%	1,130	70.0%
Total	23,784	7,571	31.8%	6,278	82.9%	11,990	50.4%	10,039	83.7%

C or better also includes the grade of P; all attempts and grades are recorded for Fall 2013, students are not necessarily require to attempt math and English during their first semester.

Finding 4: College-ready students earn a B- grade point average in their first year of college.

Table 10, shows that those who completed a USM or USM/CTE program in high school earned a B- grade point average for the Fall 2013 and Spring 2013, with a similar cumulative grade point average after the first year. Table 11 in the Appendix provides these data by Local Education Agency.

Table 10: Maryland Public High School Graduates, 2013, Average Term and Cumulative Grade Point Average at Maryland Institutions, by Program Completion Type

Program Completion Type	Average Fall 2013 Term GPA	Average Spring Term 2014 Term GPA	Average Cumulative GPA Spring 2014
USM & USM/CTE	2.68	2.62	2.75
CTE & Other	2.07	1.99	2.17

Finding 5: College-ready students are retained in college at higher rates than their peers.

The data show that those students who completed a USM program in high school were retained in a Maryland college or university – whether their original institution or another – at higher rates than their peers.

Some college-ready students transfer to another Maryland institution after the first year of college, as the rate of retention to any Maryland college or university is higher (81.5%) than retention at the same college (74.0%). These data are in Table 12 of the Appendix, organized by Local School System.

Figure 1: Maryland Public High School Graduates, 2013, Retention at Maryland Institutions by Program Completion Type
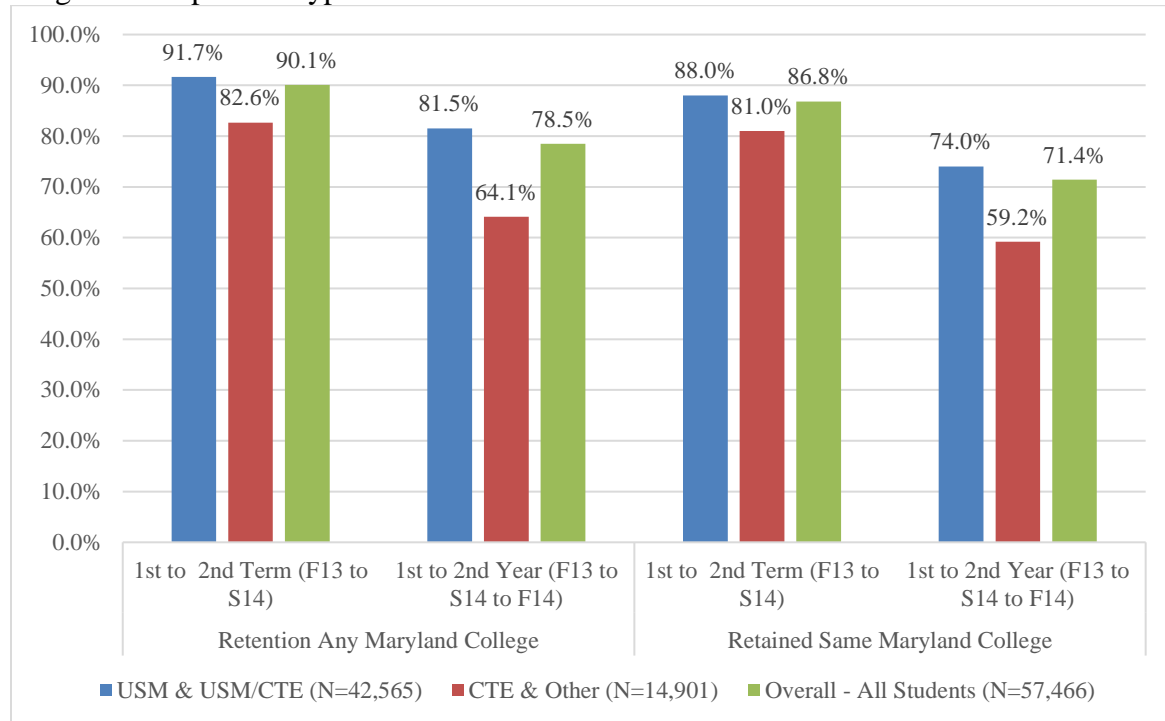
Implications of the Findings

The findings show that students considered college-ready can face barriers to first-year progress that may affect longer-term outcomes. Students who need remediation and those who complete fewer credit-bearing courses in their first year may not be able to make the kind of academic progression necessary to meet their educational goals. These are often interrelated phenomenon; for this analysis, most remedial courses were not credit-bearing, thereby limiting the number of credits these students could earn in their first term and first year. Therefore, even for a student taking four courses per term, if one or two were remedial, the student would finish their first year having made less credit-bearing academic progress than their peers.

Despite these barriers, most college-ready students in the analysis were making notable progression in their first year of college. More than half had earned 12 or more credits their first term, and, of those who attempted a credit-bearing math or English class in their first term, the vast majority passed the course. In addition, these students had earned a cumulative grade point average at the end of their first year that would set them up for success when they returned the following fall. The first-to-second year retention rates bear this out; eight out of 10 of students considered college-ready returned to college (either their same institution or another Maryland institution) for a second year.

The data included in the Appendix allow readers to further analyze these findings by Local Education Agency. It's beyond the scope of this report to analyze LSS-level data and the differing results when assessing outcomes for those considered college ready.

Lastly, what this analysis shows is the need to better understand the complexities of remediation, especially in light of ongoing statewide discussion regarding college readiness and Maryland's public secondary and post-secondary education systems. A series of reports is forthcoming from MHEC that provides an analysis of those students assessed to need remediation and their short- and long-term postsecondary outcomes.

Recommendations for Policy, Practice, and Research

The findings from this analysis suggest that Maryland must continue to focus on addressing issues tied to preparing recent high school graduates for college-level work and ameliorating the need for these students to enroll in remedial coursework. Since this cohort of students enrolled in college, a number of initiatives and efforts have occurred statewide to help address these issues. These include:

- Full implementation of the College and Career Readiness Act of 2013 (CCR/CCA),
- The efforts of the Kirwan Commission on Innovation and Excellence in Education to set educational priorities for the state, including those tied to college readiness,
- A surge in dual enrollment, thereby giving high school students opportunities to participate in and earn credit from higher education institutions while in high school,
- The establishment of a memorandum of understanding between Maryland's community colleges and the Public School Superintendents' Association of Maryland (PSSAM) to ensure that students' college and career readiness is evaluated using multiple measures

(e.g., high school GPA, standardized test score results, dual enrollment course performance), and

- The implementation of 11th grade assessments to determine students' college and career readiness and the utilization of transition courses for 12th graders who are assessed to need additional coursework.

Stakeholders, including educators, policy makers, researchers, and community leaders, must continue these efforts to focus resources and attention to issues related to college and career readiness. In addition, utilization of more robust data collections from MSDE and MHEC would allow for rigorous research on the pathways and outcomes of students affected by these interventions and programs. These analyses could help inform policy decisions and interventions.

In addition, research shows that student success efforts should include attempts to alleviate other barriers to graduation, through better college advising, clearer course progression, financial aid programs, and other promising, research-backed interventions.[18] Therefore, institutions should focus on other aspects of the student experience as well and ensure their interventions are evidence-based[19] and regularly evaluated for effectiveness.

As Maryland continues toward its goal of ensuring that, by 2025, 55% of its citizens hold an associate degree or higher, it's imperative that school districts, higher education institutions, state policy makers, and community leaders continue to collaborate and innovate toward this goal. It's imperative that all are held accountable for making sure that students are given a strong foundation from which to meet their educational goals and for preparing them for engaged citizenship and economic success.

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[18] See Scrivener, S., Gupta, H., Weiss, M.J., Cohen, B., Scott Cormier, M., & Brathwaite, J. (2018). Becoming college-ready: Early Findings from a CUNY Start Evaluation; Long, B. T. (2016, December). State support for higher education: How changing the distribution of funds could improve college completion rates. Prepared for the National Commission on Financing 21st Century Higher Education, Miller Center at the University of Virginia, Charlottesville; Hollis, L. P. (2009). Academic advising in the wonderland of college for developmental students. College Student Journal, 43(1), 31-35.

[19] For example, meeting or exceeding the What Works Clearinghouse standards. Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Handbooks

Appendices

Note: All tables are marked with notations to indicate data suppression. These notes apply to all tables in the Appendix.

Asterisks (*) notate that the MLDS Center may only report aggregate, de-identified data. Data requests containing data elements subject to the Family Educational Rights and Privacy Act (FERPA) require suppressing values less than 10 to avoid unauthorized disclosure of protected information. Data requests that are not subject to FERPA are suppressed whenever values are less than 3 to avoid unauthorized disclosure even when protected information is not present. Additional values are masked to prevent calculating masked values when group totals and sub-totals are provided. The MLDS Center uses a variety of methods for suppressing, including rounding and perturbing.

Two asterisks (**) indicate that no records meet definition within the table.

Table 1: Distribution of Maryland Public High School Graduates, 2013 and Maryland Institution Enrollment by Local School System (LSS)

Local School Systems (LSS)	Maryland Public High School Graduates and Fall 2013 College Enrollment		
	Maryland Public High School Graduates, 2013	Maryland Public High School Graduates Enrolled in a Maryland College, Fall 2013	% of High School Graduates Enrolled in a Maryland College, Fall 2013
Anne Arundel	5082	2220	43.7%
Baltimore City	4355	1567	36.0%
Baltimore	7178	3059	42.6%
Frederick	3029	1378	45.5%
Lower Shore			
Somerset	168	54	32.1%
Wicomico	841	355	42.2%
Worcester	486	201	41.4%
Mid Maryland			
Carroll	2131	957	44.9%
Howard	4075	2109	51.8%
Montgomery	10186	3872	38.0%
Prince George's	7469	2850	38.2%
Southern Maryland			
Calvert	1324	553	41.8%
Charles	2091	899	43.0%
St. Mary's	1165	466	40.0%
Susquehanna			
Cecil	1067	294	27.6%
Harford	2748	1395	50.8%
Upper Shore			
Caroline	341	142	41.6%
Dorchester	275	98	35.6%
Kent	156	52	33.3%
Queen Anne's	527	228	43.3%
Talbot	334	147	44.0%
Western Maryland			
Allegany	608	224	36.8%
Garrett	298	125	41.9%
Washington	1532	539	35.2%
	57,466	23,784	41.4%

Table 2: Distribution of Maryland Public High School Graduates, 2013 and Maryland College or University Enrollment by Local School Systems and USM Program Completion Type

Local School System (LSS)	High School Graduates fulfilling University System of Maryland Course Requirements	% fulfilling USM Requirements	Maryland College Enrollment, Fall 2013	% Enrolling in a Maryland College, Fall 2013
Anne Arundel	3,980	78.3%	1,940	48.7%
Baltimore City	3,368	77.3%	1,192	35.4%
Baltimore	5,323	74.2%	2,360	44.3%
Frederick	2,224	73.4%	1,100	49.5%
Lower Shore				
Somerset	69	41.1%	33	47.8%
Wicomico	406	48.3%	223	54.9%
Worcester	305	62.8%	134	43.9%
Mid Maryland				
Carroll	957	44.9%	514	53.7%
Howard	2,939	72.1%	1,532	52.1%
Montgomery	7,666	75.3%	3,113	40.6%
Prince George's	1,722	23.1%	906	52.6%
Southern Maryland				
Calvert	886	66.9%	393	44.4%
Charles	1,219	58.3%	581	47.7%
St. Mary's	611	52.4%	276	45.2%
Susquehanna				
Cecil	521	48.8%	185	35.5%
Harford	1,517	55.2%	878	57.9%
Upper Shore				
Caroline	167	49.0%	91	54.5%
Dorchester	161	58.5%	74	46.0%
Kent	86	55.1%	26	30.2%
Queen Anne's	327	62.0%	159	48.6%
Talbot	111	33.2%	58	52.3%
Western Maryland				
Allegany	360	59.2%	174	48.3%
Garrett	129	43.3%	69	53.5%
Washington	936	61.1%	390	41.7%
	35,990	**62.6%**	**16,401**	**45.6%**

Table 3: Distribution of Maryland Public High School Graduates, 2013 and Maryland College or University Enrollment by Local School Systems and CTE Program Completion Type

Local School System (LSS)	High School Graduates fulfilling Career and Technology Education Program Requirements	% fulfilling CTE Requirements	Maryland College Enrollment, Fall 2013	% Enrolling in a Maryland College, Fall 2013
Anne Arundel	465	9.1%	67	14.4%
Baltimore City	114	2.6%	21	18.4%
Baltimore	484	6.7%	84	17.4%
Frederick	244	8.1%	58	23.8%
Lower Shore				
Somerset	79	47.0%	*	*
Wicomico	106	12.6%	25	23.6%
Worcester	*	*	**	**
Mid Maryland				
Carroll	338	15.9%	75	22.2%
Howard	161	4.0%	65	40.4%
Montgomery	393	3.9%	89	22.6%
Prince George's	159	2.1%	43	27.0%
Southern Maryland				
Calvert	438	33.1%	160	36.5%
Charles	115	5.5%	32	27.8%
St. Mary's	366	31.4%	79	21.6%
Susquehanna				
Cecil	185	17.3%	21	11.4%
Harford	309	11.2%	103	33.3%
Upper Shore				
Caroline	103	30.2%	*	*
Dorchester	54	19.6%	*	*
Kent	*	*	*	*
Queen Anne's	34	6.5%	*	*
Talbot	99	29.6%	22	22.2%
Western Maryland				
Allegany	60	9.9%	*	*
Garrett	103	34.6%	19	18.4%
Washington	300	19.6%	49	16.3%
	4731	**8.2%**	**1069**	**22.6%**

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity.

Value changes do not exceed 1.5% either up or down from the original value. Two asterisks (**) indicate that no records meet definition within the table.

Table 4: Distribution of Maryland Public High School Graduates and Maryland College or University Enrollment by Local School Systems and USM/CTE Program Completion Type

Local School System (LSS)	High School Graduates fulfilling both University and Career / Technology Requirements	% fulfilling USM & CTE Requirements	Maryland College Enrollment, Fall 2013	% Enrolling in a Maryland College, Fall 2013
Anne Arundel	377	7.4%	165	43.8%
Baltimore City	873	20.0%	354	40.5%
Baltimore	1,109	15.4%	569	51.3%
Frederick	375	12.4%	179	47.7%
Lower Shore				
Somerset	*	*	*	*
Wicomico	122	14.5%	64	52.5%
Worcester	168	34.6%	67	39.9%
Mid Maryland				
Carroll	470	22.1%	257	54.7%
Howard	631	15.5%	370	58.6%
Montgomery	504	4.9%	259	51.4%
Prince George's	48	0.6%	26	54.2%
Southern Maryland				
Calvert	**	**	**	**
Charles	290	13.9%	145	50.0%
St. Mary's	188	16.1%	111	59.0%
Susquehanna				
Cecil	154	14.4%	51	33.1%
Harford	433	15.8%	253	58.4%
Upper Shore				
Caroline	56	16.4%	31	55.4%
Dorchester	27	9.8%	11	40.7%
Kent	*	*	*	*
Queen Anne's	166	31.5%	*	*
Talbot	81	24.3%	48	59.3%
Western Maryland				
Allegany	74	12.2%	21	28.4%
Garrett	66	22.1%	37	56.1%
Washington	296	19.3%	100	33.8%
	6,575	**11.4%**	**3,212**	**48.9%**

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity.

Value changes do not exceed 1.5% either up or down from the original value. Two asterisks (**) indicate that no records meet definition within the table.

Table 5: Distribution of Maryland Public High School Graduates, 2013 and Maryland College or University Enrollment by Local Education Agency and "Other" Program Completion Type [1]

Local School System (LSS)	Other High School Graduates	% fulfilling Other Requirements	Maryland College Enrollment, Fall 2013	% Enrolling in a Maryland College, Fall 2013
Anne Arundel	260	5.1%	48	18.5%
Baltimore City	**	**	**	**
Baltimore	262	3.7%	46	17.6%
Frederick	186	6.1%	41	22.0%
Lower Shore				
Somerset	*	*	*	*
Wicomico	207	24.6%	43	20.8%
Worcester	*	*	**	**
Mid Maryland				
Carroll	366	17.2%	111	30.3%
Howard	344	8.4%	142	41.3%
Montgomery	1,623	15.9%	411	25.3%
Prince George's	5,540	74.2%	1,875	33.8%
Southern Maryland				
Calvert	**	**	**	**
Charles	467	22.3%	141	30.2%
St. Mary's	**	**	**	**
Susquehanna				
Cecil	207	19.4%	37	17.9%
Harford	489	17.8%	161	32.9%
Upper Shore				
Caroline	15	4.4%	*	*
Dorchester	33	12.0%	*	*
Kent	**	**	**	**
Queen Anne's	**	**	**	**
Talbot	43	12.9%	19	44.2%
Western Maryland				
Allegany	114	18.8%	*	*
Garrett	**	**	**	**
Washington	**	**	**	**
	10,170	**17.7%**	**3,102**	**30.5%**

[1] Due to the nature in which the program completion data are collected, it is possible that those who are indicated to have completed an "other" program actually completed a USM, CTE or USM/CTE program but there was an error in data entry, thereby placing these records in the "other" category.

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity. Value changes do not exceed 1.5% either up or down from the original value. Two asterisks (**) indicate that no records meet definition within the table.

Table 6: 2013 Maryland Public High School Graduates', 2013, Enrollment by Maryland College or University

Maryland College	Segment	High Graduates Enrolled Fall 2013	% of Total Enrolled High School Graduates
Allegany	Community Colleges	239	1%
Anne Arundel	Community Colleges	1,616	7%
Baltimore City	Community Colleges	424	2%
Carroll	Community Colleges	519	2%
Cecil	Community Colleges	180	1%
Chesapeake	Community Colleges	391	2%
Southern Maryland	Community Colleges	1,331	6%
Baltimore County	Community Colleges	2,236	9%
Frederick	Community Colleges	803	3%
Garrett	Community Colleges	124	1%
Hagerstown	Community Colleges	405	2%
Harford	Community Colleges	973	4%
Howard	Community Colleges	1,075	5%
Montgomery	Community Colleges	1,752	7%
Prince George's	Community Colleges	1,181	5%
Wor-Wic	Community Colleges	351	1%
	Total	**13,600**	**57%**
Bowie State University	4-Year Public Colleges	474	2%
Coppin State University	4-Year Public Colleges	227	1%
Frostburg State University	4-Year Public Colleges	705	3%
Salisbury University	4-Year Public Colleges	806	3%
Towson University	4-Year Public Colleges	1,689	7%
University of Baltimore	4-Year Public Colleges	164	1%
University of Maryland Baltimore County	4-Year Public Colleges	1,229	5%
University of Maryland College Park	4-Year Public Colleges	2,261	10%
University of Maryland Global Campus	4-Year Public Colleges	28	0%
University of Maryland Eastern Shore	4-Year Public Colleges	404	2%
Morgan State University	4-Year Public Colleges	478	2%
St.Mary's College of Maryland	4-Year Public Colleges	252	1%
	Total	**8,717**	**37%**

Maryland College	Segment	High Graduates Enrolled Fall 2013	% of Total Enrolled High School Graduates
Capitol Technology University	State-Aided Independent Colleges	33	0%
Goucher College	State-Aided Independent Colleges	55	0%
Hood College	State-Aided Independent Colleges	155	1%
Johns Hopkins University	State-Aided Independent Colleges	103	0%
Loyola Univeristy Maryland	State-Aided Independent Colleges	99	0%
Maryland Institute College of Art	State-Aided Independent Colleges	56	0%
Mc. Daniel College	State-Aided Independent Colleges	206	1%
Mount St. Mary's University	State-Aided Independent Colleges	128	1%
Notre Dame of Maryland University	State-Aided Independent Colleges	56	0%
St. John's College	State-Aided Independent Colleges	<=12*	<=1%*
Stevenson University	State-Aided Independent Colleges	418	2%
Washington Adventist University	State-Aided Independent Colleges	29	0%
Washington College	State-Aided Independent Colleges	117	0%
Other Private Institutions/ Closed Institutions	State-Aided Independent Colleges	<=12*	<=1%*
Total		**1,467**	**6%**
Total High School Graduates Enrolled in College Fall 2013		23784	

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity.

Table 7: Maryland Public High School Graduates, 2013, Students Assessed to Need Remediation in a Maryland College by Program Completion Type						
Program Completion Type	Enrolled in a Maryland College from Baseline Population	Unique students needing remediation	Overall % of Students Needing Remediation	Math Remediation	English Remediation	Reading Remediation
USM	16,401	6,687	40.80%	5,999	2,509	2,549
USM/CTE	3,212	1,582	49.30%	1,416	674	642
CTE	1,069	819	76.60%	751	484	427
OTHER	3,102	2,401	77.40%	2,259	1,270	1,239
Total	23,784	11,489	48.30%	10,425	4,937	4,857

Table 8: Maryland Public High School Graduates, 2013, Students Assessed to Need Remediation in a Maryland College by Local School System and Program Completion Type

Local School System	Maryland Public High School Graduates Enrolled in College, Fall 2013	Maryland College Enrollment for High School Graduates with USM or USM/CTE Program Completion, Fall 2013	Maryland College Enrollment for High School Graduates with CTE or Other Program Completion, Fall 2013	Total				USM & USM/CTE				CTE & Other			
				Unique Students	Math Remediation	English Remediation	Reading Remediation	Unique Students	Math Remediation	English Remediation	Reading Remediation	Unique Students	Math Remediation	English Remediation	Reading Remediation
Anne Arundel	2220	2,105	115	1,141	1,102	199	319	1,042	1,005	167	278	99	97	32	41
Baltimore City	1567	1,546	21	1,114	1,059	668	725	1,097	1,042	655	711	17	17	13	14
Baltimore	3059	2,929	130	1,579	1,475	735	777	1,463	1,363	653	696	116	112	82	81
Frederick	1378	1,279	99	560	462	237	217	470	381	183	164	90	81	54	53
Lower Shore															
Somerset	54	*	*	41	40	12	*	27	27	*	*	14	13	*	*
Wicomico	355	287	68	215	202	55	34	155	146	29	16	60	56	26	18
Worcester	201	201	**	88	82	25	11	87	81	24	11	**	**	**	**
Mid Maryland															
Carroll	957	771	186	429	406	127	169	265	250	61	78	164	156	66	91
Howard	2109	1,902	207	142	104	22	65	129	91	*	57	13	13	*	*
Montgomery	3872	3,372	500	1,483	1,366	503	498	1,133	1,046	326	336	350	320	177	162
Prince George's	2850	932	1,918	1,953	1,852	907	947	404	363	100	150	1,549	1,489	807	797
Southern Maryland															
Calvert	553	393	160	263	233	117	99	164	147	68	53	99	86	49	46
Charles	899	726	173	602	557	314	266	443	405	204	173	159	152	110	93
St. Mary's	466	387	79	231	195	133	91	169	136	89	55	62	59	44	36
Susquehanna															
Cecil	294	236	58	205	80	80	185	149	63	63	131	56	17	17	54
Harford	1395	1,131	264	603	487	308	308	385	288	157	172	218	199	151	136
Upper Shore															
Caroline	142	122	20	75	59	53	*	57	43	39	*	18	16	14	*
Dorchester	98	85	13	59	49	36	*	46	37	27	*	*	*	*	*
Kent	52	*	*	30	27	21	*	29	26	20	*	*	*	*	*
Queen Anne's	228	*	*	98	75	46	*	95	73	45	*	*	*	*	*
Talbot	147	106	41	67	57	48	*	36	28	22	*	31	29	26	*
Western Maryland															
Allegany	224	195	29	132	119	77	73	103	93	52	51	29	26	25	22
Garrett	125	106	19	78	65	31	45	59	48	19	30	19	17	12	15
Washington	539	490	49	305	275	199	18	262	233	*	15	43	42	33	*
	23784	**19,613**	**4,171**	11,493	10,428	4,953	4,871	8,269	7,415	3,024	3,197	3,224	3,013	1,763	1,674

Note: Not all students are assessed prior to admission or during their first year of study. Additional students may be identified as needing remediation later in their academic careers. Students may not be required to be assessed in all three subject.

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Table 9: Maryland Public High School Graduates, 2013, College Credit in Maryland Colleges in the Fall 2013 Term by Local School System and Program Completion Type

	Maryland Public High School Graduates Enrolled in College, Fall 2013	Maryland College Enrollment for High School Graduates with USM or USM/CTE Program Completion, Fall 2013	Maryland College Enrollment for High School Graduates with CTE or Other Program Completion, Fall 2013	USM & USM/CTE			CTE & Other		
				Earned >=15 credits, Fall 2013	Earned Full-12 to 14.9 Credits, Fall 2013	Earned <=11 Credits, Fall 2013	Earned >=15 credits, Fall 2013	Earned Full-12 to 14.9 Credits, Fall 2013	Earned <=11 Credits, Fall 2013
Anne Arundel	2,220	2,105	115	466	541	1,098	*	*	104
Baltimore City	1,567	1,546	21	226	254	1,066	*	*	*
Baltimore	3,059	2,929	130	732	665	1,532	*	*	113
Frederick	1,378	1,279	99	360	363	556	*	*	*
Lower Shore									
Somerset	54	*	*	*	10	20	*	*	*
Wicomico	355	287	68	89	61	137	*	*	*
Worcester	201	201	**	52	56	93	**	**	**
Mid Maryland									
Carroll	957	771	186	303	225	243	*	*	166
Howard	2,109	1,902	207	791	649	462	31	50	126
Montgomery	3,872	3,372	500	1,140	946	1,286	59	50	391
Prince George's	2,850	932	1,918	277	303	352	143	305	1,470
Southern Maryland									
Calvert	553	393	160	111	122	160	31	38	91
Charles	899	726	173	153	202	371	13	25	135
St. Mary's	466	387	79	97	124	166	*	*	63
Susquehanna									
Cecil	294	236	58	55	48	133	*	*	*
Harford	1,395	1,131	264	343	342	446	11	24	229
Upper Shore									
Caroline	142	122	20	17	24	81	*	*	*
Dorchester	98	85	13	25	12	48	*	*	*
Kent	52	*	*	*	*	31	*	*	*
Queen Anne's	228	*	*	*	*	121	*	*	*
Talbot	147	106	41	23	29	54	*	*	*
Western Maryland									
Allegany	224	195	29	47	42	106	*	*	*
Garrett	125	106	19	25	38	43	*	*	*
Washington	539	490	49	104	106	280	*	*	*
	23,784	**19,613**	**4,171**	**5,503**	**5,226**	**8,884**	**332**	**540**	**3,299**

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity. Two asterisks (**) indicate that no records meet definition within the table.

Table 10: Maryland Public High School Graduates, 2013, Performance in First Credit-Bearing Math or English Course in a Maryland College by Local School System and Program Completion Type

	Maryland Public High School Graduates Enrolled in College, Fall 2013	Maryland College Enrollment for High School Graduates with USM or USM/CTE Program Completion, Fall 2013	Maryland College Enrollment for High School Graduates with CTE or Other Program Completion, Fall 2013	USM & USM/CTE				CTE & Other			
				Attempted First Math	C or Better First Math	Attempted First English	C or Better First English	Attempted First Math	C or Better First Math	Attempted First English	C or Better First English
Anne Arundel	2,220	2,105	115	719	607	1,207	1,029	12	*	48	31
Baltimore City	1,567	1,546	21	183	127	552	435	*	*	*	*
Baltimore	3,059	2,929	130	861	691	1,512	1,272	*	*	43	24
Frederick	1,378	1,279	99	519	436	649	555	*	*	28	16
Lower Shore											
Somerset	54	*	*	*	*	20	14	*	*	*	*
Wicomico	355	287	68	69	62	157	123	*	*	27	16
Worcester	201	201	**	67	57	96	82	**	**	**	**
Mid Maryland											
Carroll	957	771	186	319	276	426	379	18	12	64	41
Howard	2,109	1,902	207	940	758	1,067	951	44	29	84	59
Montgomery	3,872	3,372	500	1,399	1,181	1,693	1,499	58	43	193	131
Prince George's	2,850	932	1,918	350	283	524	486	121	64	754	564
Southern Maryland											
Calvert	553	393	160	185	155	259	219	51	42	98	82
Charles	899	726	173	258	214	467	392	16	10	79	48
St. Mary's	466	387	79	198	178	266	220	14	12	37	22
Susquehanna											
Cecil	294	236	58	73	63	104	87	*	*	12	8
Harford	1,395	1,131	264	562	458	702	605	35	16	86	47
Upper Shore											
Caroline	142	122	20	42	32	65	49	*	*	*	*
Dorchester	98	85	13	14	10	39	31	*	*	*	*
Kent	52	*	*	*	*	20	18	*	*	*	*
Queen Anne's	228	*	*	76	65	138	124	*	*	*	*
Talbot	147	106	41	43	30	55	49	*	*	13	11
Western Maryland											
Allegany	224	195	29	71	56	88	66	*	*	11	*
Garrett	125	106	19	47	40	70	59	*	*	*	*
Washington	539	490	49	163	146	200	164	*	*	*	*
	23,784	**19,613**	**4,171**	7,171	5,936	10,376	8,908	400	257	1,614	1,130

C or better also includes the grade of P; all attempts and grades are recorded for Fall 2013, students are not necessarily require to attempt math and english during their first semester. Further, due to the time of data extraction, not all grades for a semester are submitted. Therefore it is incorrect to assume that students that are not counted as receiving a C or Better received a D or failing grade.

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity. Two asterisks (**) indicate that no records meet definition within the table.

Table 11: Maryland Public High School Graduates, 2013, Term and Cumulative Grade Point Average in a Maryland College by Local School System and Program Completion Type

	Maryland Public High School Graduates Enrolled in College, Fall 2013	Maryland College Enrollment for High School Graduates with USM or USM/CTE Program Completion, Fall 2013	Maryland College Enrollment for High School Graduates with CTE or Other Program Completion, Fall 2013	Total						USM & USM/CTE						CTE & Other					
				# with Fall GPA	Fall Term GPA	# with Spring Term GPA	Spring Term GPA	# with Spring CGPA	Spring CGPA	# with Fall GPA	Fall Term GPA	# with Spring Term GPA	Spring Term GPA	# with Spring CGPA	Spring CGPA	# with Fall GPA	Fall Term GPA	# with Spring Term GPA	Spring Term GPA	# with Spring CGPA	Spring CGPA
Anne Arundel	2,220	2,105	115	2,094	2.52	1,883	2.55	1,957	2.70	1,984	2.57	1,808	2.57	1,881	2.72	110	1.54	75	2.11	76	2.20
Baltimore City	1,567	1,546	21	1,382	2.13	1,156	1.85	1,214	2.20	1,367	2.14	1,144	1.86	1,202	2.21	15	1.57	12	1.26	12	1.36
Baltimore	3,059	2,929	130	2,708	2.58	2,521	2.42	2,704	2.63	2,593	2.61	2,434	2.46	2,614	2.65	115	1.82	87	1.48	90	1.91
Frederick	1,378	1,279	99	1,152	2.76	1,101	2.73	1,270	2.74	1,083	2.81	1,048	2.78	1,194	2.81	69	1.90	53	1.80	76	1.71
Lower Shore																					
Somerset	54	*	*	51	2.25	44	2.32	44	2.48	*	2.45	34	2.41	34	2.61	*	1.65	10	2.03	10	2.06
Wicomico	355	287	68	321	2.42	295	2.46	310	2.53	266	2.62	253	2.61	266	2.70	55	1.49	42	1.56	44	1.54
Worcester	201	201	**	179	2.64	166	2.68	176	2.70	*	2.65	*	2.68	*	2.71	**	**	**	**	**	**
Mid Maryland																					
Carroll	957	771	186	753	2.81	752	2.76	855	2.86	621	2.96	620	2.89	721	2.98	132	2.11	132	2.13	134	2.23
Howard	2,109	1,902	207	1,955	2.76	1,917	2.72	1,974	2.83	1,763	2.84	1,757	2.78	1,809	2.89	192	2.01	160	2.03	165	2.25
Montgomery	3,872	3,372	500	3,612	2.71	3,516	2.66	3,637	2.79	3,138	2.81	3,095	2.77	3,208	2.87	474	2.06	421	1.86	429	2.19
Prince George's	2,850	932	1,918	2,580	2.53	2,335	2.35	2,514	2.51	874	3.01	855	2.84	892	2.95	1,706	2.28	1,480	2.07	1,622	2.25
Southern Maryland																					
Calvert	553	393	160	519	2.53	458	2.63	476	2.70	370	2.62	331	2.67	344	2.75	149	2.30	127	2.54	132	2.57
Charles	899	726	173	845	2.41	757	2.44	772	2.52	684	2.54	622	2.53	637	2.62	161	1.86	135	1.99	135	2.05
St. Mary's	466	387	79	442	2.63	395	2.71	405	2.76	369	2.74	339	2.78	348	2.83	73	2.08	56	2.33	57	2.37
Susquehanna																					
Cecil	294	236	58	283	2.41	240	2.52	249	2.64	225	2.59	201	2.69	210	2.77	58	1.69	39	1.69	39	1.95
Harford	1,395	1,131	264	1,297	2.48	1,167	2.59	1,247	2.67	1,049	2.70	977	2.76	1,047	2.83	248	1.54	190	1.75	200	1.83
Upper Shore																					
Caroline	142	122	20	134	2.38	111	2.30	121	2.48	117	2.46	100	2.42	106	2.58	17	1.85	11	1.20	15	1.82
Dorchester	98	85	13	81	2.44	73	2.35	82	2.49	71	2.55	65	2.48	74	2.61	10	1.65	*	*	*	*
Kent	52	*	*	49	2.40	44	2.20	46	2.30	*	2.40	*	2.24	*	2.34	*	*	*	*	*	*
Queen Anne's	228	*	*	216	2.53	185	2.52	190	2.68	211	2.54	183	2.52	187	2.68	*	*	*	*	*	*
Talbot	147	106	41	134	2.36	120	2.26	130	2.45	98	2.59	91	2.53	99	2.65	36	1.73	29	1.39	31	1.82
Western Maryland																					
Allegany	224	195	29	221	2.65	197	2.59	199	2.75	192	2.77	175	2.69	177	2.83	29	1.91	22	1.81	22	2.15
Garrett	125	106	19	124	2.79	106	2.74	109	2.92	105	2.96	93	2.84	95	3.03	19	1.84	13	2.02	14	2.15
Washington	539	490	49	455	2.54	435	2.49	474	2.64	415	2.65	410	2.53	445	2.68	40	1.48	25	1.85	29	1.97
	23,784	**19,613**	**4,171**	21,587	2.57	19,974	2.52	21,155	2.66	17,859	2.68	16,844	2.62	17,811	2.75	3,728	2.07	3,130	1.99	3,344	2.17

Note: Data on CGPA are extract at the end of each term from the institution's student information system. Not all grades or grade changes are posted prior to data extraction. Further, GPAs are not reported by State-Aided Independent Institutions. Therefore it cannot be inferred that in counties with fewer GPAs reported than students enrolled that the students have failed classes or withdrawn from college.

The MLDS Center does not calculate average GPAs on fewer than 10 records.

*MLDS uses a variety of techniques to suppress small cell sizes. In certain cases numbers may be adjusted up or down to protect identity. Two asterisks (**) indicate that no records meet definition within the table.

Table 12: Maryland Public High School Graduates, 2013, First-term and First-year Retention Rates at a Maryland Institution by Local School System

Local School System	Maryland Public High School Graduates, 2013	Maryland Public High School Graduates Enrolled in a Maryland College, Fall 2013	Retention Any Maryland College		Retained Same Maryland College	
			Fall 2013 to Spring 2014	Fall 2013 to Spring 2014 to Fall 2014	Fall 2013 to Spring 2014	Fall 2013 to Spring 2014 to Fall 2014
Anne Arundel	5,082	2,220	1,972	1,766	1,895	1,596
Baltimore City	4,355	1,567	1,245	929	1,203	841
Baltimore	7,178	3,059	2,743	2,401	2,638	2,199
Frederick	3,029	1,378	1,275	1,114	1,216	1,001
Lower Shore						
Somerset	168	54	47	37	47	34
Wicomico	841	355	318	253	296	207
Worcester	486	201	179	150	168	130
Mid Maryland						
Carroll	2,131	957	875	798	828	723
Howard	4,075	2,109	1,994	1,855	1,913	1,702
Montgomery	10,186	3,872	3,662	3,374	3,546	3,110
Prince George's	7,469	2,850	2,567	2,204	2,495	2,006
Southern Maryland						
Calvert	1,324	553	482	390	471	349
Charles	2,091	899	790	661	762	596
St. Mary's	1,165	466	409	336	399	308
Susquehanna						
Cecil	1,067	294	250	212	244	196
Harford	2,748	1,395	1,254	1,094	1,205	999
Upper Shore						
Caroline	341	142	122	92	116	79
Dorchester	275	98	82	68	78	62
Kent	156	52	46	36	45	35
Queen Anne's	527	228	190	161	178	139
Talbot	334	147	130	101	125	90
Western Maryland						
Allegany	608	224	201	158	196	146
Garrett	298	125	109	92	109	87
Washington	1,532	539	487	382	470	350
	57,466	23,784	21,429	18,664	20,643	16,985

Note: It is possible that some students graduated and therefore met their educational goals, these students are therefore not "retained". Other students may have transferred to another college, either in state or out-of-state, to continue their postsecondary education. Finally, some students may be on a leave of absence, with plans to return to their education. It is incorrect to assume that students not counted as retained should be counted in an an attrition rate.