MARYLAND
State Report

While education serves many purposes, an academically-prepared workforce is more important than ever before to a state's (and our nation's) economy. The level of education demanded by today's jobs, especially in the growing fields of science, technology, engineering, and mathematics (STEM), exceeds the supply of available workers. Attaining postsecondary credentials requires a rigorous K–12 academic foundation.

High school graduation rates are increasing, but a high school diploma does not necessarily signify college and career readiness. Too few students graduate academically prepared for postsecondary success, as demonstrated by performance on college readiness assessments and/or completion of a rigorous core high school curriculum. Worse, indicators of students' access to and performance in high school courses that would better prepare them for college and career are often not tracked by states.

Graduates and their families believe that a high school diploma signifies that they have the skills and knowledge necessary to get additional training, join the military, or enroll in entry-level, credit-bearing courses in two- and four-year colleges. Indicators show, however, that many high school graduates are not college or career ready.

Students begin to fall "off track" well before ninth grade. The National Assessment of Education Progress is the only national, comparable data showing U.S. student performance in 4th and 8th grade prior to entering high school.
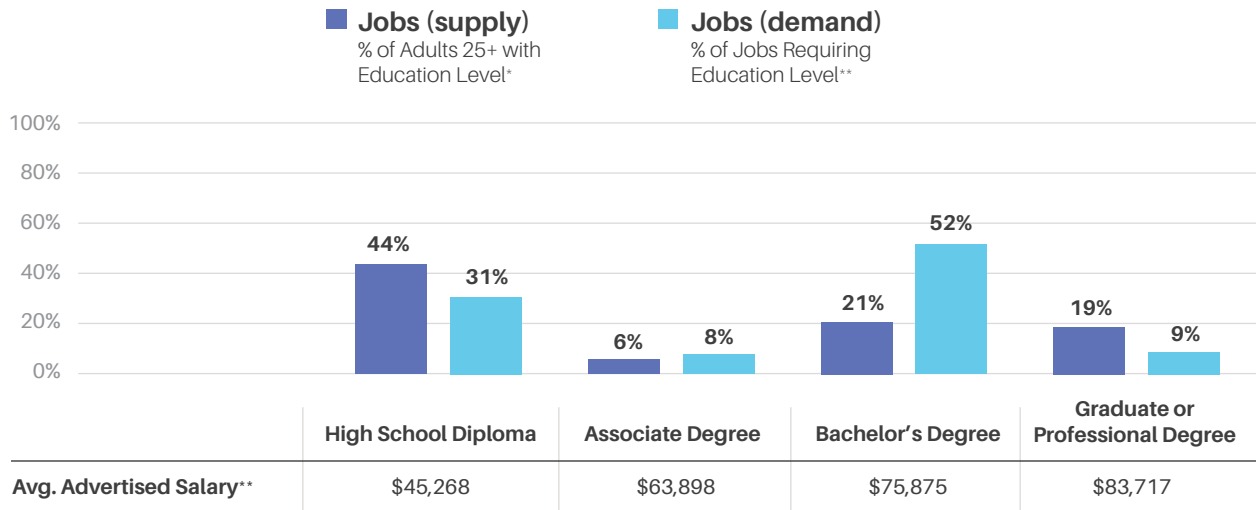
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THE ECONOMIC IMPERATIVE

In today's knowledge-based economy, more jobs than ever require a postsecondary credential. Too often, though, the demand for educated workers outstrips the supply. The increasing demand for science, technology, engineering, and mathematics (STEM) jobs may, in part, explain the demand for workers to be more educated than ever before.

The economic indicators below show the importance of an educated workforce and the economic imperative for improving K–12 education so that all students graduate with a high school diploma that prepares them for college, careers, and life.

SUPPLY VS. DEMAND – DOES MARYLAND HAVE THE EDUCATED WORKFORCE NEEDED FOR TODAY'S JOBS?

As policymakers and leaders work to improve employment prospects for their workforce, it's important to take into account the education required for available jobs. The graph below provides a snapshot comparison of the supply of educated workers and the demand for education credentials within the current job market.

Jobs (supply)
% of Adults 25+ with Education Level*

Jobs (demand)
% of Jobs Requiring Education Level**

	High School Diploma	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Jobs (supply)	44%	6%	21%	19%
Jobs (demand)	31%	8%	52%	9%
Avg. Advertised Salary**	$45,268	$63,898	$75,875	$83,717

* 2013 American Community Survey data.

** Burning Glass Technologies job posting data, July 2014–June 2015.

COMPOSITION OF MARYLAND'S JOB MARKET

Jobs in STEM[1] fields are increasingly important to every state's economy. The graphs below demonstrate that STEM jobs represent a significant portion of the state's current job market, as well as the fact that STEM jobs are more likely than non-STEM jobs to require a bachelor's degree or more.

STEM and Non-STEM Jobs*

- STEM Jobs
  29%
- Non-STEM Jobs
  71%
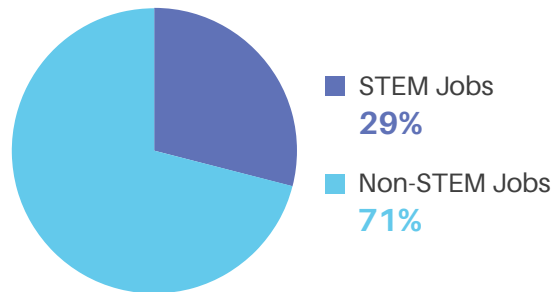
EDUCATION REQUIREMENTS FOR MARYLAND'S JOBS

As the STEM job market continues to grow, a rigorous K–12 education with a strong academic foundation and experiences that position them for successful transitions to the additional education and training needed for their selected career path.

STEM and Non-STEM Jobs*

	STEM Jobs	Non-STEM Jobs
Requires BA and Above	76%	53%
Requires Less than BA	24%	47%

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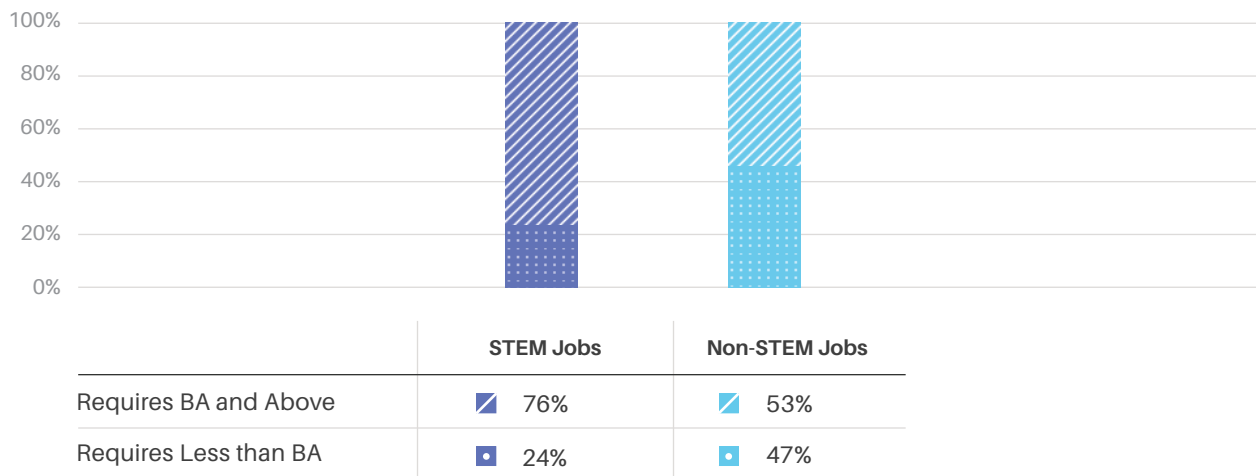
[1] Definition of STEM jobs: The analysis takes a job seeker- and student-centric approach to defining STEM occupations and defines STEM jobs as those that have substantial mathematics and science requirements included within either the standard course of training or the specific qualifications requested in job postings. As a result, "STEM jobs" includes the following occupational areas: science, information technology, engineering, mathematics, and health care.

This approach contrasts with traditional methodologies, which tend to focus only on jobs that are primarily engaged in scientific, mathematical, or technological activity. Examples of jobs that are included in this analysis that are typically excluded from STEM jobs definitions: clinical health care roles that require job seekers to undertake substantial coursework in the biological sciences and a range of "analyst" jobs (such as logistics analysts and business intelligence analysts) that call for significant mathematics training.

* Burning Glass Technologies job posting data, July 2014–June 2015.

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COLLEGE- AND CAREER-READY ASSESSMENT SCORE

This indicator reports the percentage of students who score at the college- and career-ready level on high school assessments anchored to college- and career-ready standards. These assessments include a performance level/ cut score that provides high school students a clear signal regarding their readiness for first-year mathematics and English courses at postsecondary institutions and is used by colleges and universities for placement into first-year credit-bearing courses.

ACT PERFORMANCE: PERCENTAGE OF STUDENTS MEETING COLLEGE READINESS BENCHMARKS

ACT reports the percentage of ACT-tested high school graduates meeting ACT's College Readiness Benchmarks for each subject area as well as across the four subject areas. These data reflect the performance of both public and non-public school students. These data are available for some but not all subgroups. All students in the cohort took the test, but ACT's participation rate is based upon projections of graduates made by the Western Interstate Commission for Higher Education (WICHE) in 2012 rather than actual graduates.

Percentage Meeting All College Readiness Benchmarks in 2015-16

Participation Rate: 27%

All Students	41%
American Indian/Alaska Native	12%
Asian	59%
Black	12%
Hispanic	31%
Native Hawaiian/Other Pacific Islander	44%
White	54%
Two or More Races	42%
Low Income	N/R
Students with Disabilities	N/R
Limited English Proficient	N/R

Percentage Meeting College Readiness Benchmarks in 2015-16 by Subject

	READING	ENGLISH	MATH	SCIENCE
All Students	59%	74%	57%	51%
American Indian/Alaska Native	39%	59%	29%	27%
Asian	71%	87%	81%	68%
Black	29%	45%	23%	19%
Hispanic	51%	65%	48%	41%
Native Hawaiian/Other Pacific Islander	70%	78%	52%	48%
White	73%	88%	72%	65%
Two or More Races	63%	77%	56%	52%
Low Income	N/R	N/R	N/R	N/R
Students with Disabilities	N/R	N/R	N/R	N/R
Limited English Proficient	N/R	N/R	N/R	N/R

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SAT PERFORMANCE: PERCENTAGE OF STUDENTS MEETING COLLEGE READINESS BENCHMARK

The state did not report 2015-16 data on the percentage of students in the cohort taking the SAT and meeting the Evidence-Based Reading and Writing (EBRW) and Mathematics Benchmarks. College Board did not report state data on the percentage of the 2016 graduating cohort meeting the benchmarks due to the March 2016 transition from the old SAT to the redesigned SAT. The College Board advises against comparing SAT results for the class of 2016 to previous graduating cohorts because the total population of students is defined differently.

Percentage Meeting College Readiness Benchmarks in 2015-16 by Subject

Participation Rate: N/R

	EBRW	MATH
All Students	N/R	N/R
American Indian/Alaska Native	N/R	N/R
Asian	N/R	N/R
Black	N/R	N/R
Hispanic	N/R	N/R
Native Hawaiian/Other Pacific Islander	N/R	N/R
White	N/R	N/R
Two or More Races	N/R	N/R
Low Income	N/R	N/R
Students with Disabilities	N/R	N/R
Limited English Proficient	N/R	N/R

PARCC PERFORMANCE: PERCENTAGE OF STUDENTS MEETING COLLEGE READINESS BENCHMARKS

Maryland reports the percentage of test takers earning a 4 or 5 on the PARCC assessments in English 11 and Algebra II. Students enrolled in an Algebra II course were eligible to take the Algebra II assessment and the PARCC English 11 assessment was available as a district option. Data are available by subgroups. PARCC tests are administered upon course completion; data are available only for test takers, not the cohort.

Percentage Meeting College Readiness Benchmarks in 2015-16 by Subject

Participation Rate ELA: N/A, Math: N/A

	ELA	MATH
All Students	37%	27%
American Indian/Alaska Native	33%	33%
Asian	55%	59%
Black	24%	7%
Hispanic	32%	14%
Native Hawaiian/Other Pacific Islander	35%	27%
White	53%	42%
Two or More Races	46%	25%
Low Income	25%	10%
Students with Disabilities	7%	4%
Limited English Proficient	3%	8%

STUDENTS ON TRACK TO GRADUATE BASED ON CREDIT ACCUMULATION

Timely credit accumulation is a leading indicator of students' progress toward high school graduation. This indicator shows the percentage of students who are on track to graduate based on the number of credits earned by the end of a particular grade.

N/R

Percent of grade 9 students on track to graduate

All Students		N/R
American Indian/Alaska Native		N/R
Asian		N/R
Black		N/R
Hispanic		N/R
Native Hawaiian/Other Pacific Islander		N/R
White		N/R
Two or More Races		N/R
Low Income		N/R
Students with Disabilities		N/R
Limited English Proficient		N/R

Students on track to graduate is reported as N/R because either Maryland does not report the data or the reporting does not meet Achieve's criteria for this indicator.

ADJUSTED COHORT GRADUATION RATES

The adjusted cohort graduation rate indicates the percentage of 9th graders who graduate from high school in four years or less with a regular high school diploma. This percentage is calculated by dividing the number of graduating students by the number of students who entered high school four years earlier (adjusting for transfers in and out, émigrés, and deceased students). Five-year graduation rates are also reported where available.

4-YEAR 5-YEAR	CLASS OF 2013-14	CLASS OF 2014-15
All Students	86%	87%
	89%	89%
American Indian/Alaska Native	87%	79%
	90%	81%
Asian	95%	96%
	96%	97%
Black	81%	82%
	84%	86%
Hispanic	77%	77%
	81%	81%
Native Hawaiian/Other Pacific Islander	76%	90%
	78%	90%
White	92%	92%
	93%	93%
Two or More Races	90%	91%
	92%	92%
Low Income	78%	79%
	82%	83%
Students with Disabilities	63%	64%
	69%	70%
Limited English Proficient	54%	49%
	65%	61%

COLLEGE- AND CAREER-READY COURSEWORK COMPLETION

Graduation rate alone is often an insufficient indicator of students' readiness for life after high school because the classes and requirements to earn a diploma vary greatly across states. Every state, regardless of its graduation requirements, can and should also publicly report the percentage of the adjusted 9th grade cohort who complete a college- and career-ready course of study while in high school.

	CLASS OF 2013-14	CLASS OF 2014-15
All Students		60% / 59%
American Indian/Alaska Native		N/R / N/R
Asian		N/R / N/R
Black		N/R / N/R
Hispanic		N/R / N/R
Native Hawaiian/Other Pacific Islander		N/R / N/R
White		N/R / N/R
Two or More Races		N/R / N/R
Low Income		49% / 48%
Students with Disabilities		26% / 26%
Limited English Proficient		36% / 32%
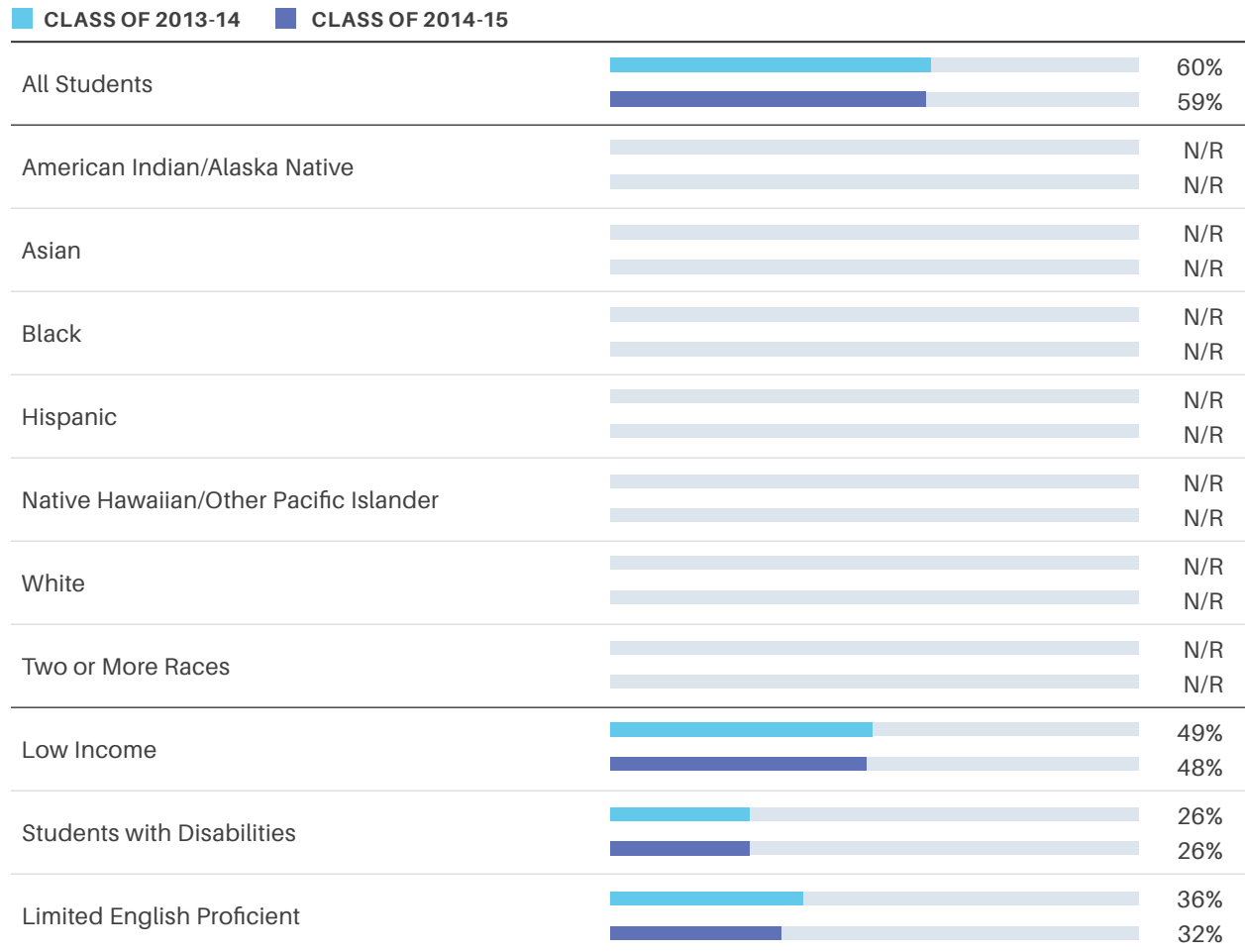
Maryland offers a college- and career-ready course of study to all students in the state and publicly reports the percentage of students who graduate having completed that course of study. The state reports course of study completion by some subgroups, but not all.

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EARNING COLLEGE CREDITS WHILE IN HIGH SCHOOL

Students who earn college credits while in high school are more likely to enter college and succeed. This indicator reports the percentage of students that meet this benchmark.

PERCENTAGE OF STUDENTS EARNING A 3+ ON AN AP EXAM

Maryland reports the percentage of Advanced Placement (AP) exams scored 3+ out of all exams taken by 9th-12th grade students in 2013-14, 2014-15, and 2015-16. Adjusting the denominator to reflect all students in the cohort rather than tests taken would improve the stability of the indicator and paint a more complete picture. The state does not report subgroup data for 2015-16.

Trend Over Time

2013-14	61%
2014-15	61%
2015-16	62%
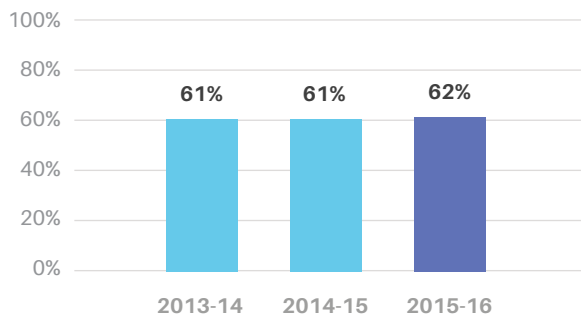
All Students	62%
American Indian/Alaska Native	N/R
Asian	N/R
Black	N/R
Hispanic	N/R
Native Hawaiian/Other Pacific Islander	N/R
White	N/R
Two or More Races	N/R
Low Income	N/R
Students with Disabilities	N/R
Limited English Proficient	N/R

PERCENTAGE OF STUDENTS WHO HAVE COMPLETED COURSES FOR COLLEGE CREDIT

Maryland reports the percentage of International Baccalaureate (IB) tests scored 4+ in 2016. The state does not report discrete data on students' successful dual enrollment course completion or meeting a combined measure of earning college credit, or the reporting does not meet Achieve's criteria for these indicators.
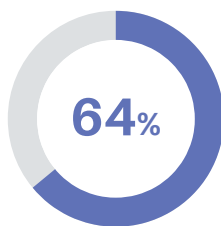
64%
Completed IB/Earned College Credit

N/R
Completed Dual Enrollment Courses for College Credit

N/R
Met AP, IB, Dual Enrollment or Career-Technical Indicator

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PREPAREDNESS FOR THE MILITARY

This indicator examines data from the U.S. Armed Forces enlistment examination and reveals the percentage of students who seek to enter the military but are not eligible to enter or are not prepared for higher-level education, training, and advancement opportunities offered by the U.S. Armed Forces.

Percentage Ineligible

	Total	Black	Hispanic	White
Percentage	27%	36%	31%	27%
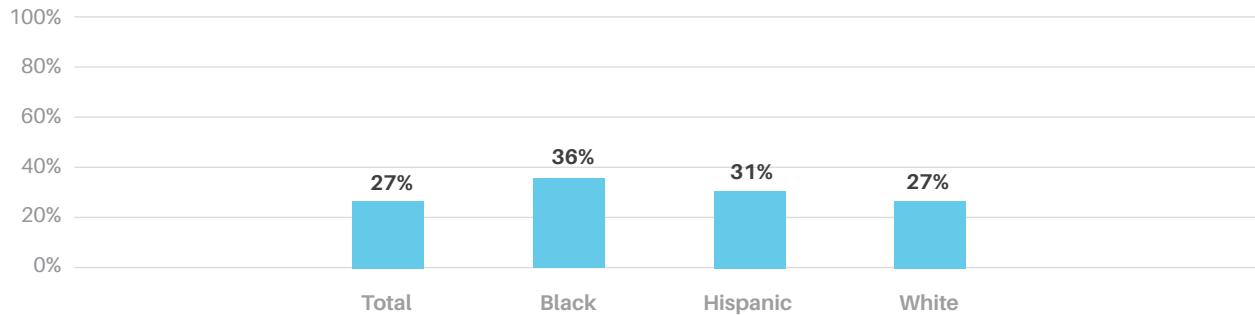
POSTSECONDARY ENROLLMENT

Enrollment in a postsecondary institution is the first step to degree attainment. This indicator reports the percentage of the state's high school graduates who enter into postsecondary education. The extent of information reported varies based on whether data are available for in-state and out-of-state students along with whether data are available for two-year institutions, four-year institutions, or both.

PERCENTAGE OF STUDENTS ENROLLING IN POSTSECONDARY

Maryland reports the percentage of high school graduates enrolling in two- and four-year, in- and out-of-state, public and private institutions of higher education within 12 months of graduation.

High School Graduates, Class of 2014

2- and 4-Year (public and private, in- and out-of-state)
68%

Not Reported
32%

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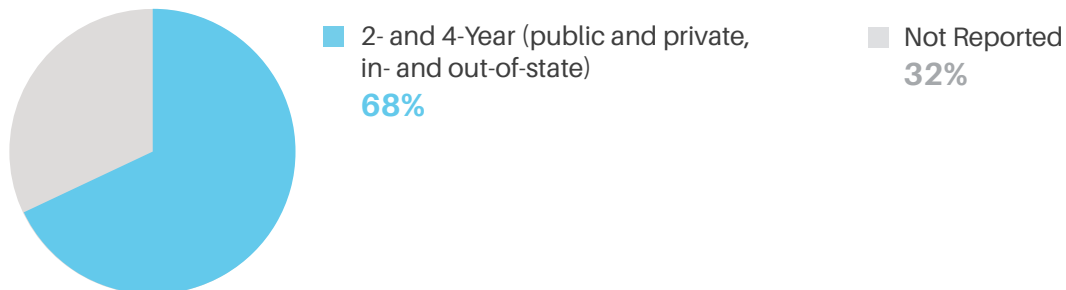
POSTSECONDARY REMEDIATION

Alarming numbers of students enter postsecondary institutions only to find out they need to enroll in — and pay for — remedial courses without earning college credit for these classes. This indicator reports the percentage of high school graduates who require postsecondary remediation.

PERCENTAGE OF STUDENTS IN REMEDIATION

Maryland reports the percentage of the state's class of 2013 high school graduates enrolled in 16 Maryland community colleges and 11 of 13 public universities who need any remedial courses. The state does not report data on math and English remediation needs.

Remediation by Institution Type and Subject Area

■ 4-Year   ■ 2-Year

	Math	English	Any
4-Year	N/R	N/R	25%
2-Year	N/R	N/R	71%
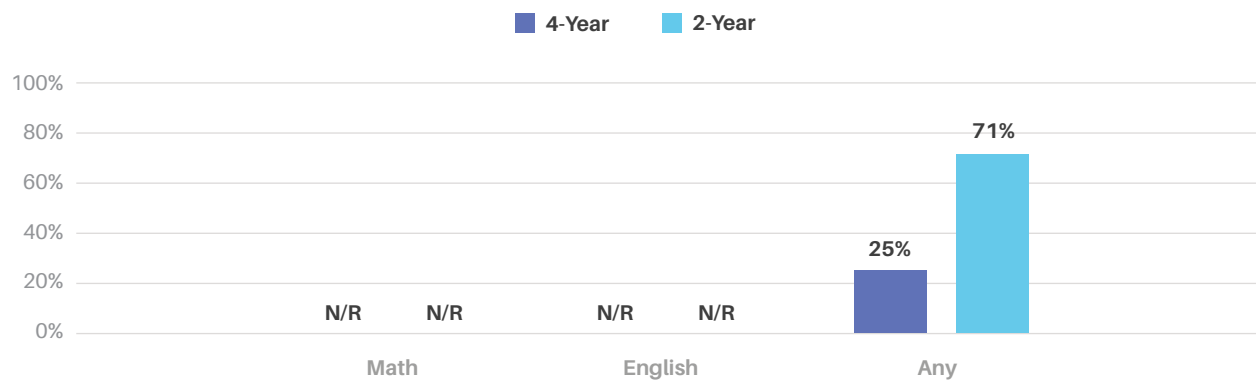
POSTSECONDARY PERSISTENCE

Too few students who start college ultimately earn a degree. This indicator reports the percentage of the state's high school graduates who enroll in a postsecondary institution and complete at least one year of postsecondary education in a designated amount of time or return to postsecondary education for a consecutive year.

PERCENTAGE OF STUDENTS PERSISTING BEYOND THE FIRST YEAR

Maryland reports the percentage of high school graduates who enroll in two- and four-year, in-state, public institutions of higher education within 16 months of graduation and complete one year of college credit (30 credits) within 24 months of enrollment. This excludes any students enrolled in private and out-of-state institutions. Data have not been updated since last year's report.

High School Graduates, Class of 2012

51%
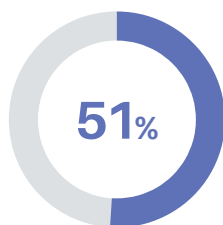
**2- and 4-Year
(public, in-state)**

ACADEMIC PERFORMANCE OF ELEMENTARY AND MIDDLE SCHOOL STUDENTS

The National Assessment of Educational Progress (NAEP) monitors student achievement nationally and allows for comparisons across states. This indicator includes 4th and 8th grade reading and math results and 8th grade science results. Scale scores were rounded to the nearest whole number. Changes since 2005 were calculated based on differences between unrounded scale scores and then rounded to the nearest whole number.

GRADE 4

Percentage of Students Meeting Proficient or Advanced Benchmarks

	MATH - 2015	READING - 2015
All Students	40%	37%
American Indian/Alaska Native	N/R	N/R
Asian	70%	57%
Black	21%	18%
Hispanic	25%	21%
Native Hawaiian/Other Pacific Islander	N/R	N/R
White	56%	51%
Two or More Races	47%	54%
National School Lunch Program Eligible	21%	18%

Average Scale Score Changes - Math

Scale Score Change from 2005-2015

Change since 2005: ▲ 1
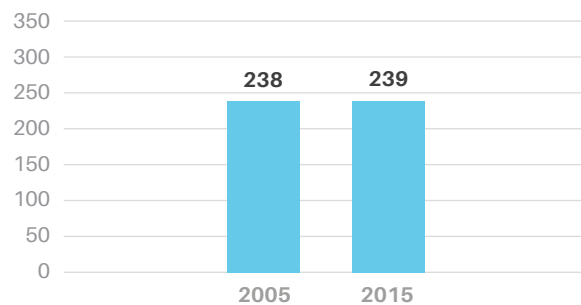
	2005	2015
	238	239

Change in Gaps: 2005–2015

Black-White	▼	2
Hispanic-White	▲	4
National School Lunch Program Eligible-Ineligible Students	▲	2

Average Scale Score Changes - Reading

Scale Score Change from 2005-2015

Change since 2005: ▲ 3
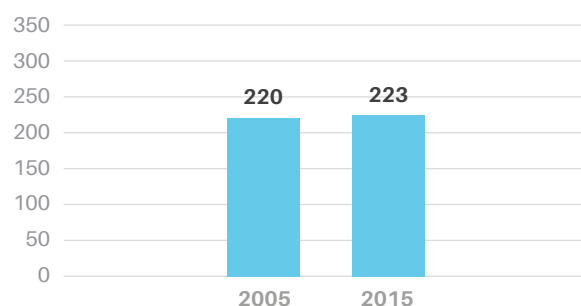
	2005	2015
	220	223

Change in Gaps: 2005–2015

Black-White	▼	4
Hispanic-White	▲	3
National School Lunch Program Eligible-Ineligible Students	▼	4

GRADE 8

Percentage of Students Meeting Proficient or Advanced Benchmarks

	MATH - 2015	READING -2015	SCIENCE - 2015
All Students	35%	37%	36%
American Indian/Alaska Native	N/R	N/R	N/R
Asian	68%	65%	66%
Black	14%	19%	14%
Hispanic	24%	27%	24%
Native Hawaiian/Other Pacific Islander	N/R	N/R	N/R
White	49%	50%	52%
Two or More Races	37%	45%	40%
National School Lunch Program Eligible	15%	19%	15%

Average Scale Score Changes - Math

### Scale Score Change from 2005-2015

Change since 2005: ▲ 5

278 (2005), 283 (2015)
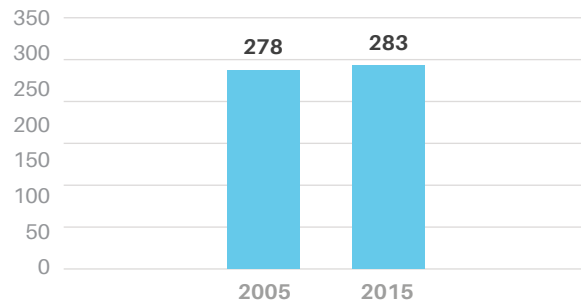
Change in Gaps: 2005–2015

Black-White	No Change
Hispanic-White	▼ 7
National School Lunch Program Eligible-Ineligible Students	▲ 3

Average Scale Score Changes - Reading

Scale Score Change from 2005-2015

Change since 2005: ▲ 7

261 (2005), 268 (2015)
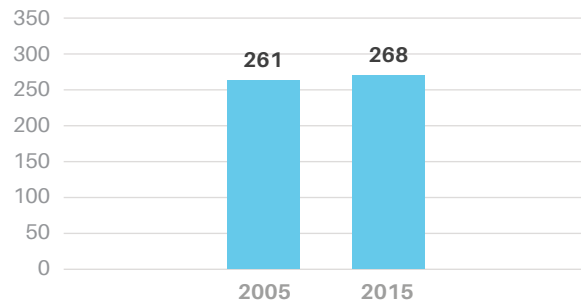
Change in Gaps: 2005–2015

Black-White	▼ 1
Hispanic-White	▲ 5
National School Lunch Program Eligible-Ineligible Students	▲ 1

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DATA SOURCES

METHODOLOGY
www.achieve.org/state-profiles

NATIONAL AND INDIVIDUAL STATE REPORTS
www.achieve.org/state-profiles

CCR PERFORMANCE ON AN ASSESSMENT – ACT
http://www.act.org/content/act/en/research/condition-of-college-and-career-readiness-2016.html

CCR PERFORMANCE ON AN ASSESSMENT – SAT
https://www.collegeboard.org/program-results/consolidated-news-reports

CCR PERFORMANCE ON AN ASSESSMENT – PARCC
http://reportcard.msde.maryland.gov/ParccHighTrends.aspx?PV=74:10:99:AAAA:1:N:0:13:1:2:5:1:1:1:3

COHORT GRADUATION RATE
http://reportcard.msde.maryland.gov/CohortGradRate.aspx?PV=160:12:99:AAAA:1:N:0:13:1:1:0:1:1:1:3#datat-able333

CCR GRADUATION RATE
http://reportcard.msde.maryland.gov/HighSchoolCompletionOther.aspx?PV=38:12:99:AAAA:3:N:0:13:1:2:1:1:1:2:3

EARNING COLLEGE CREDIT WHILE IN HIGH SCHOOL – AP
http://reportcard.msde.maryland.gov/Entity.aspx?WDATA=State

EARNING COLLEGE CREDIT WHILE IN HIGH SCHOOL – IB
http://reportcard.msde.maryland.gov/college_readiness/IB/2015_IB_99AAAA.pdf

PREPAREDNESS FOR THE MILITARY
http://edtrust.org/wp-content/uploads/2013/10/ASVAB_4.pdf

POSTSECONDARY ENROLLMENT
https://mldscenter.maryland.gov/Dashboards.html

POSTSECONDARY REMEDIATION
http://mhec.maryland.gov/publications/Documents/Research/AnnualPublications/2016Databook.pdf

POSTSECONDARY PERSISTENCE
http://reportcard.msde.maryland.gov/COLLEGECREDIT.aspx?PV=185:12:99:AAAA:1:N:0:13:1:2:1:1:1:1:3&tab=2