



Mohammed Choudhury
State Superintendent of Schools

To: Members of the State Board of Education

From: Mohammed Choudhury, State Superintendent of Schools 

Date: August 23, 2022

Subject: Standard Setting Progress, State Assessment Overview & Update for Spring 2022 Results

Purpose

The purpose of this item is to provide an overview of the Maryland Comprehensive Assessment Program (MCAP), updates on the Maryland assessment standard setting progress, and updates on Spring 2022 results.

Background/Historical Perspective

The Every Student Succeeds Act (ESSA) requires states to assess students annually in grades 3-8 and once in high school in English Language Arts (ELA), mathematics, and science. Each assessment used for federal accountability must go through Federal Peer Review where a State demonstrates the technical soundness of its assessment system. The Maryland Comprehensive Assessment Program (MCAP) provides information to educators, families, and the public on progress on the Maryland state content standards and fulfills federal and state assessment requirements.

Executive Summary

This presentation provides an overview and updates on Maryland's assessment program and discusses how the quality of the assessment system is developed with the assistance of technical advisors and checked for quality through the Federal Peer Review process. Results of the Spring 2022 Science Grade 5 & 8 assessments are presented. The presentation concludes with a timeline for release of the remaining school year 2021-2022 assessment results and future reporting priorities

Action

No action is required; this information is for discussion only.

Standard Setting Progress, Overview of State Assessments and Update of Spring 2022 Results

MARYLAND STATE BOARD OF EDUCATION | August 23, 2022

Presented By | Chandra Haislet, Assistant State Superintendent, Division of Assessment, Accountability, and Performance Reporting



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1. Requirements Overview
 2. MCAP Overview
 3. MCAP Transition Timeline
 4. Standard Setting Process
 5. Science Results Grade 5, 8
 6. MCAP Reporting Timeline

Requirements Overview

Federal and State Assessment Requirement Overview

Federal and State Assessment Requirements

- The Every Student Succeeds Act (ESSA) requires states to assess students annually in grades 3-8 and once in high school in English Language Arts (ELA), mathematics, and science
- Each assessment used for federal accountability must go through a Federal Peer Review where a State demonstrates the technical soundness of its assessment system
- The quality of Maryland's assessment system is developed with the assistance of technical advisors *and* checked for quality through the Federal Peer Review process
- State COMAR requires that students be assessed in Government in high school and social studies in grade 8
- To be awarded a Maryland High School Diploma, a student must meet the graduation assessment requirements. (COMAR 13A.03.02.09B)

Maryland Comprehensive Assessment Program (MCAP)

The Maryland Comprehensive Assessment Program (MCAP) provides information to educators, families and the public on the progress students and schools are making on the Maryland state content standards. The MCAP also fulfills federal and state assessment requirements.

	Mathematics	English Language Arts/Literacy	Science	Social Studies
General Education	Grade 3-8	Grade 3-8	Grade 5, 8	Grade 8
	Algebra I, Geometry, Algebra II	ELA/Literacy Grade 10	Life Science Maryland Integrated Science Assessment (LS MISA)	Government
Alternate Assessments*	Grade 3-8, Grade 11	ELA/Literacy Grade 3-8, Grade 11	Science Grade 5,8,11	Grade 8
English Learners	ACCESS and Alt-ACCES for English Language Learners K-12			
Early Childhood	Kindergarten Readiness Assessment (KRA)			

*Alternate (Alt) assessments are administered to students with significant cognitive disabilities.

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MCAP Overview

Maryland Comprehensive Assessment Program Overview and Updates

The Maryland Comprehensive Assessment Program (MCAP)

- The MCAP Assessment Blueprint emphasizes assessing students on college and career readiness standards with results geared towards ensuring students are progressing and receiving necessary supports
- **All assessments times have been shortened in length** from previous administrations and have been psychometrically supported to provide equitable information to previously provided assessment results
- MCAP reporting will embrace a growth mindset with new language for reporting student performance levels
- ELA and mathematics are in transition to become computer adaptive tests (Spring 2023)
- Life Science Maryland Integrated Science Assessment (LS MISA) and Government are transitioning to End-of-Course Exams worth 20% of a students' course grade (SY 2023-2024)

The MCAP Reduces Testing Time for Students

The Maryland Comprehensive Assessment Program (MCAP) maintains a reduced testing time for students while ensuring validity of the assessment program to assess the Maryland content standards as required by state and federal requirements.

- Local Education Agencies (LEAs) have flexibility within a state testing window on how best to assess their students
- LEAs determine how many days students are assessed and whether students take multiple units in a single day

Subject	Previous units and times			MCAP	Shorter test and testing time		
	Number of Units	Minutes per Unit	Total Testing time		Grades	Number of Units	Minutes per Unit
Math 3-5	4	60	240	Math 3-5	4	40	160
Math 6-8	3	80	240	Math 6-8	4	40	160
Math HS	4	75	300	Math HS	4	40	160
ELA/L 3	4	90	360	ELA/L 3	4	70	280
ELA/L 4-8, 10	4	90	360	ELA/L 4-8, 10	4	70	280
MISA 5&8	4	60	240	MISA 5&8	4	40	160
HS MISA	5	40	200	LS MISA	4	40	160
N/A				SS 8	4	40	160
Government	5	40	200	Government	4	40	160

MCAP Performance Level Descriptions

MCAP reporting will embrace a growth mindset with new language for reporting student performance levels.

Performance Level Descriptions

-  **Level 4 Distinguished Learner**
-  **Level 3 Proficient Learner**
-  **Level 2 Developing Learner**
-  **Level 1 Beginning Learner**

Level 4 Distinguished Learners: Distinguished Learners demonstrate advanced proficiency. The students are well prepared for the next grade level or course and are well prepared for college and career readiness.

Level 3 Proficient Learners: Proficient Learners demonstrate proficiency. The students are prepared for the next grade level or course and are on track for college and career readiness.

Level 2 Developing Learners: Developing Learners demonstrate partial proficiency. The students need additional academic support to ensure success in the next grade level or course and to be on track for college and career readiness.

Level 1 Beginning Learners: Beginning Learners do not yet demonstrate proficiency. The students need substantial academic support to be prepared for the next grade level or course and to be on track for college and career readiness.

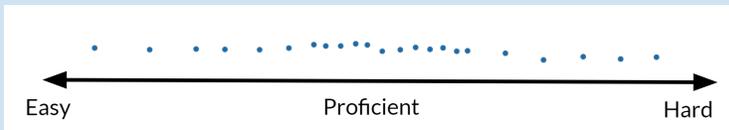
Computer Adaptive Testing (Page 1 of 2)

English Language Arts and mathematic assessments are transitioning to Computer Adaptive Tests (CAT) and will be administered for the first time in Spring 2023. During SY 2021-2022, assessments were administered as a fixed form test.

Fixed Form Testing

Items must cover the full range of performance levels to allow for measurement of all students.

Items are spread along the whole spectrum from easy to hard with a greater number of items around the cut scores, particularly the proficient cut.

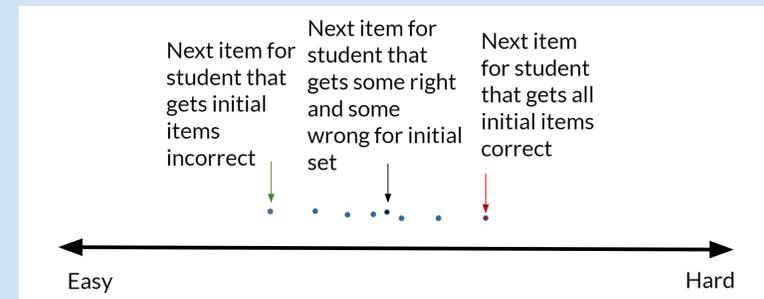


Computer Adaptive Testing (CAT)

A student will be given an initial set of items.

Depending on how the student performs on this initial set of items, the performance will determine the difficulty level of the next item or set of items.

Students will continue to be assigned items that fall in a range of performance to narrow in on the student's performance level.



Computer Adaptive Testing (Page 2 of 2)

The Benefits of Computer Adaptive Testing include:

- **Reduction in test length and testing time:** Based on experience in Large-Scale Assessments, with a robust item bank, it is possible to reduce testing time while maintaining similar level of measurement precision
- **Test security:** Student tests are varied in item order and in item content
- **Content coverage:** Increased measurement of standards over a group of students in a single administration can improve available information when aggregated at different levels (grade, school, district, and state)

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MCAP Transition Timeline

Maryland Comprehensive Assessment Program Transition Timeline

Transition to the New Maryland Comprehensive Assessment Program (MCAP)

Maryland was to transition to the new MCAP in school year 2019-2020, however, the timeline was shifted by 2 years due to the pandemic. **Milestones scheduled for the school year 2019-2020 have been shifted to 2021-2022.** The timelines below provide the major milestones comparing the original timeline to the new revised timeline.

Original Transition Timeline



Revised Transition Timeline



*Early Fall 2021 assessments were shortened tests with limited data and therefore did not support a standard setting process.

Maryland Comprehensive Assessment Program (MCAP)

The MCAP mathematics, English Language Arts, LS MISA, and Government for SY 2021-2022 are new and will undergo standard setting in 2022. Science grade 5 and grade 8 has previously completed standard setting. Social Studies Grade 8 will have standard after the SY 2022-2023 administration.

SY 2021-2022	Mathematics	English Language Arts/Literacy	Science	Social Studies
General Education	Grade 3-8	Grade 3-8	Grade 5, 8	Grade 8
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Standard Setting Process

An overview of Maryland's standard setting process and engagement of Maryland educators

Standard Setting in Maryland (1 of 4)

Standard setting is a standardized process used to set performance standards and determine the cut scores used to place students into performance levels

Purpose of the Standard Setting Process is to have **subject matter experts make item-level judgments, which when aggregated, generate panel-recommended cut scores**

Maryland will standard set 16 assessments in the summer through early fall of 2022



MSDE is excited to welcome educators from across Maryland to participate in the standard setting process.

Standard Setting in Maryland (2 of 4)

The standard setting process is required after the first year of any new assessment.

- Once the assessment window closed in 2022, **Maryland educators participate in Rangefinding to build consensus around student responses** at specific score points
- Using Maryland's content specific scoring rubrics, each of the **2022 assessment items are scored**
- A statistical review (**Data Review**) of all student responses provides assurance that **items are valid, psychometrically defensible, and accurately measure what students know and can do**
- Data Review includes item properties in terms of item difficulty and item discrimination, and the review also includes option analysis/score point distribution analysis including an examination of whether items function differently across student groups
- During standard setting, MSDE, Maryland educators, and assessment experts **define and finalize levels of proficiency and cut scores mapped to performance levels**

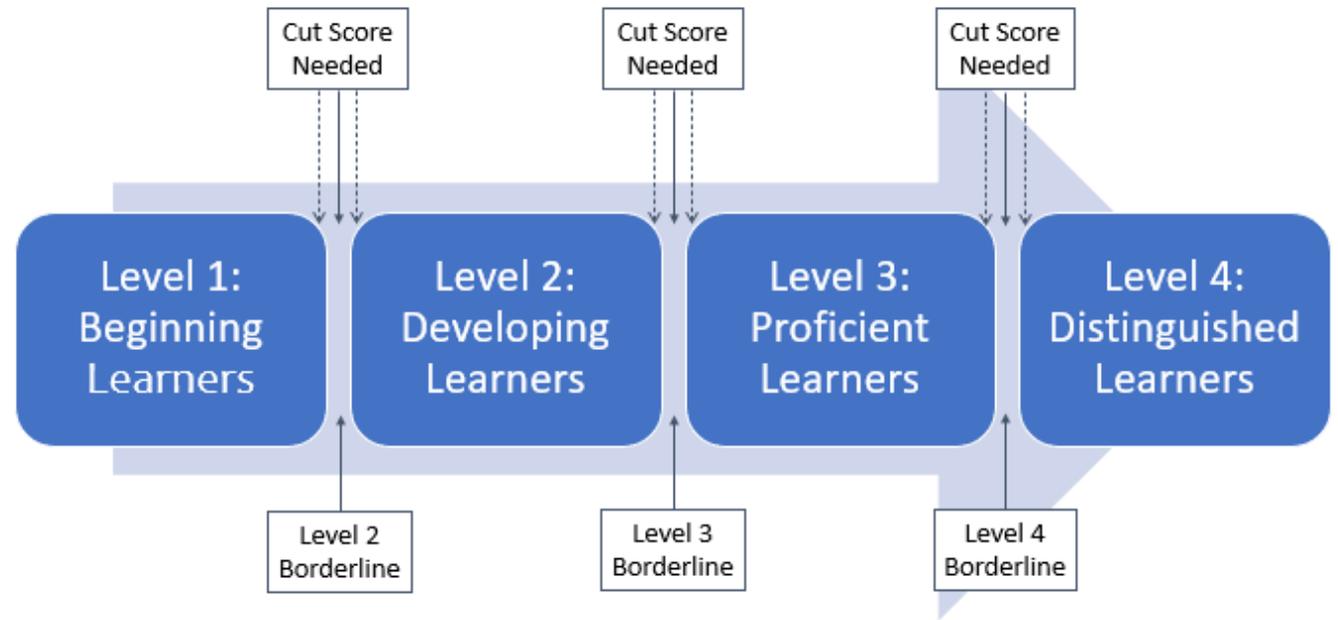
*Early Fall 2021 assessments were shortened tests with limited data and therefore did not support a standard setting process.

Standard Setting in Maryland (3 of 4)

MSDE’s Technical Advisory Committee recommended the modified Angoff method for the standard setting process. The modified Angoff method is the most commonly used method for providing cut score recommendations for achievement tests.

How the Angoff Method Works

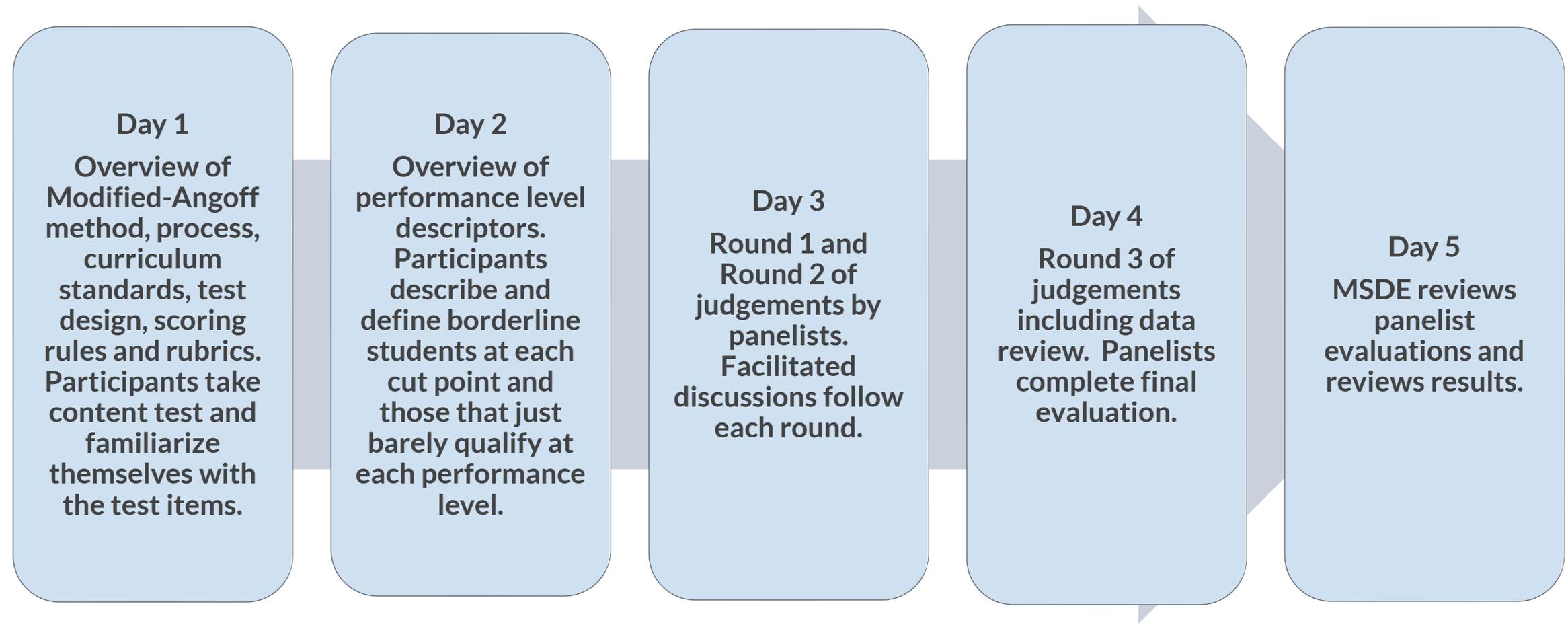
- Panelists examine test items and estimate the probability that a borderline student will correctly answer each item on the test
- An overall score for a student at each performance level becomes that panelist’s recommended cut score for that performance level
- The Angoff method is thorough and more time intensive than other standard setting methods



The final outcome of standard setting is three cut score recommendations at the borderlines of each performance level

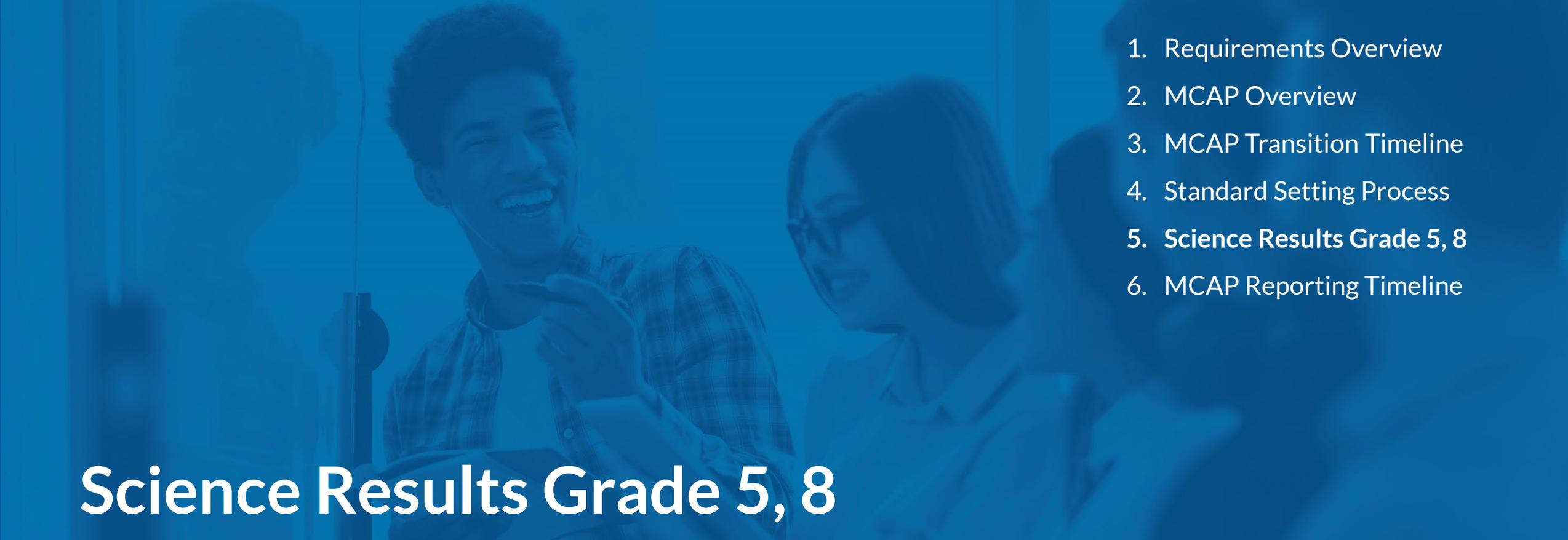
Standard Setting in Maryland (4 of 4)

Maryland educators participate in the standard setting process for each new assessment.



Next Steps After Standard Setting

- MSDE reviews all results and panelist feedback from the process
- Standard setting panelists provide recommended cut scores, and MSDE **develops cut scores ensuring the technical quality of the assessment**
- Final recommended cut scores are reviewed by the Technical Advisory Committee
- The final recommended scores are based on policy, panelist, and psychometric input
- **MCAP cut scores are applied to student records, reporting systems are updated and validated, and reports provided to districts**
- The cut scores and scale will be presented at a future Maryland Board of Education meeting

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Science Results Grade 5, 8

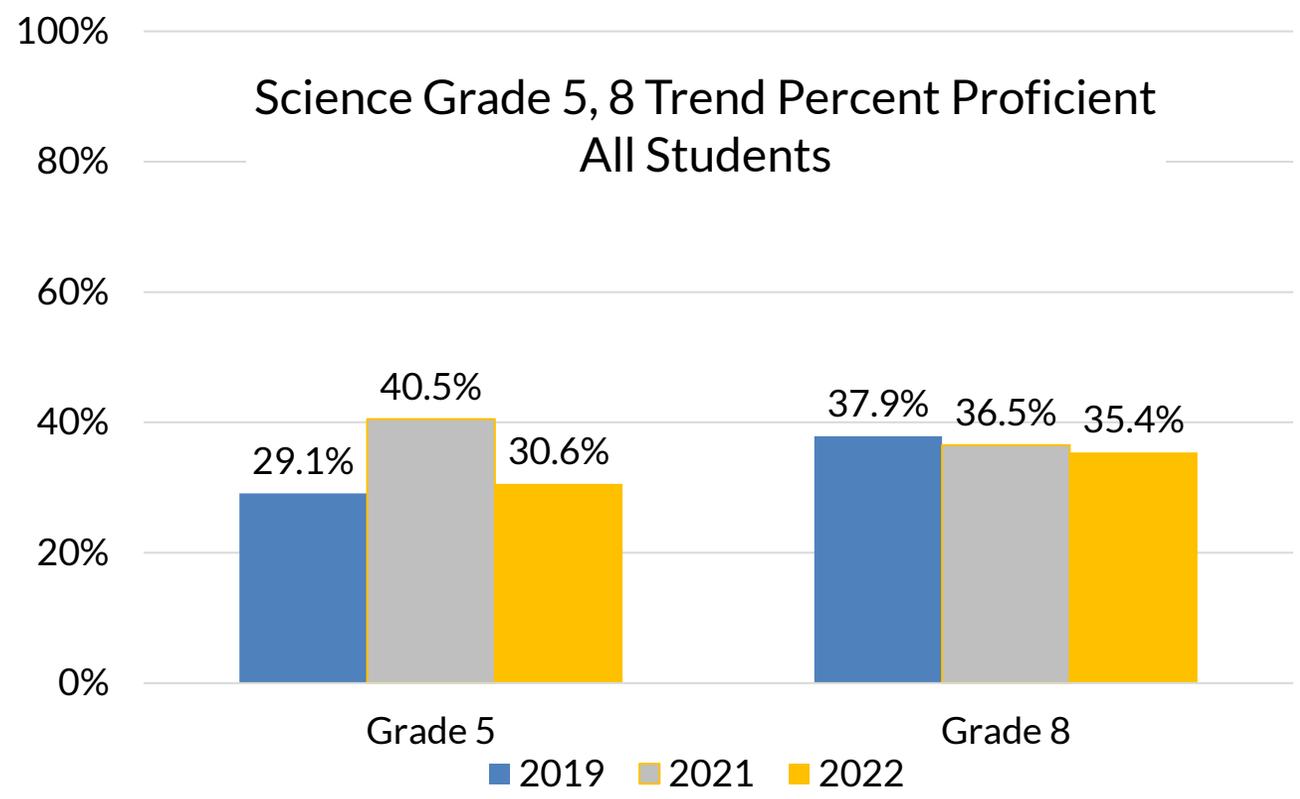
Maryland Integrated Science Assessment (MISA) Results for Grade 5 and Grade 8

Science Grade 5, 8 Percent Proficient, SY 2019-2022*

Maryland students were 30.6% proficient in grade 5 science, and 35.4% proficient in grade 8 science.

Maryland Comprehensive Assessment Program

- 2019: Administered before pandemic
PL 4 and 5 considered proficient
- 2020: No assessments were administered
- 2021: Assessments administered were a shortened test and administered Fall 2021
PL 2 and 3 considered proficient
- 2022: Full MCAP assessments were administered
PL 3 and 4 considered proficient

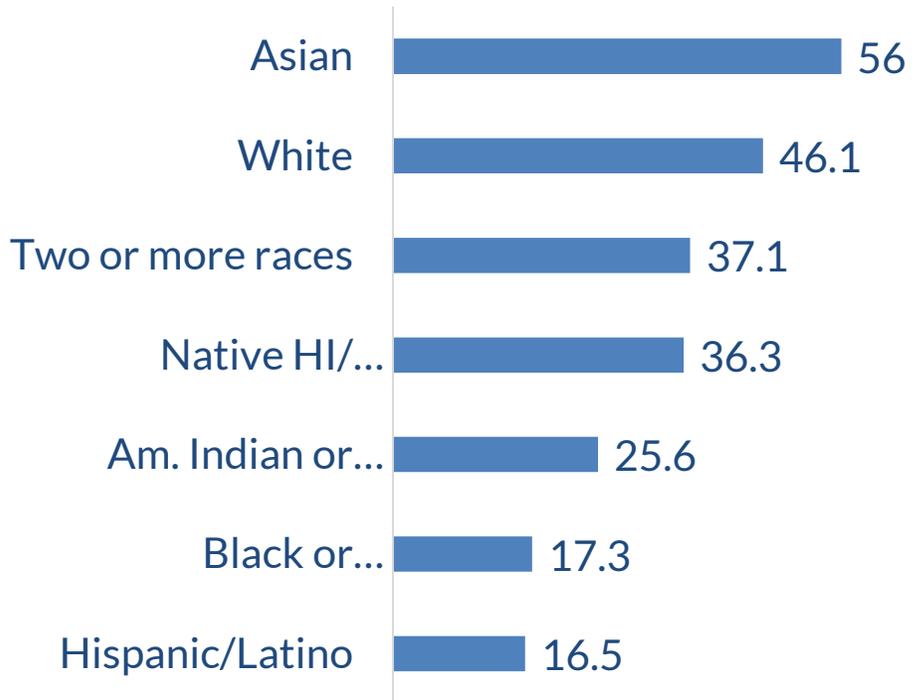


*Standard setting for science grade 5 and grade 8 was completed in 2018

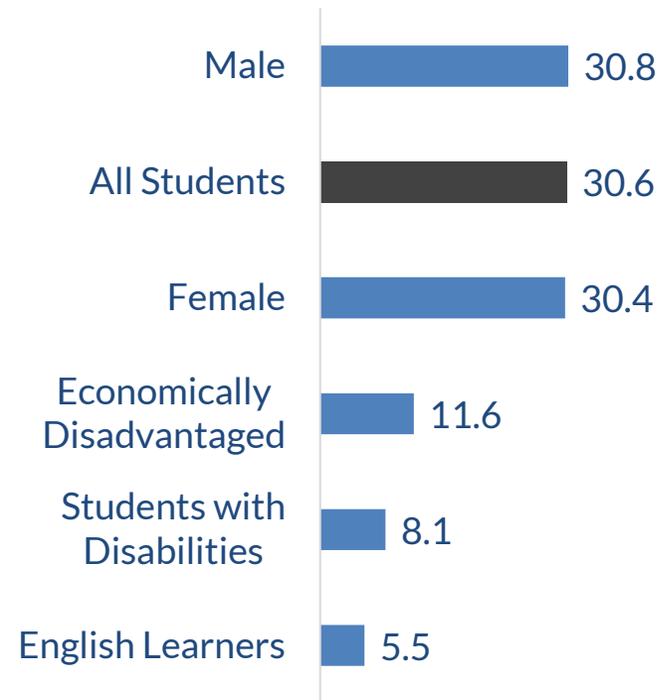
Maryland Science Grade 5 Results by Race/Ethnicity and Student Group

Percent of Students Scoring Proficient by Race/Ethnicity and Student Group, SY2022

Race/Ethnicity



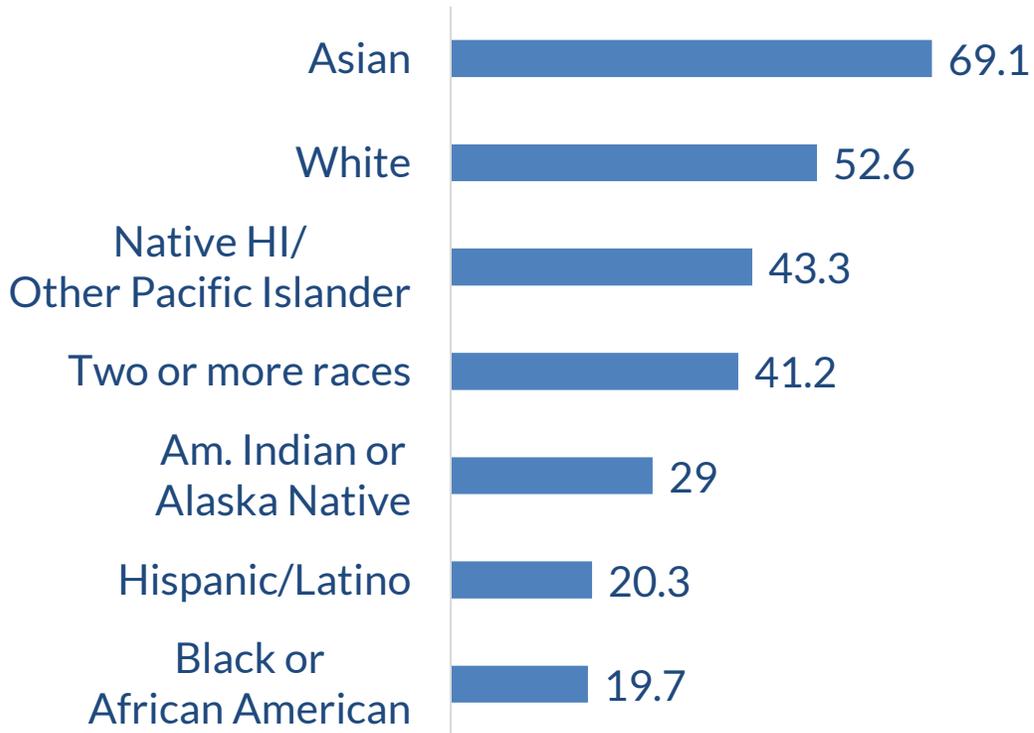
Student Group



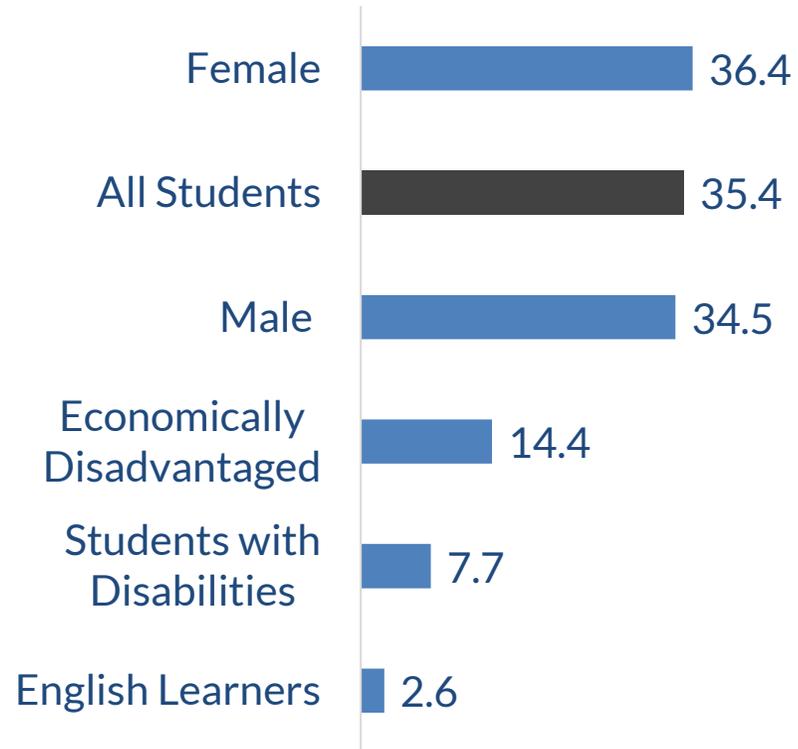
Maryland Science Grade 8 Results by Race/Ethnicity and Student Group

Percent of Students Scoring Proficient by Race/Ethnicity and Student Group, SY 2022

Race/Ethnicity

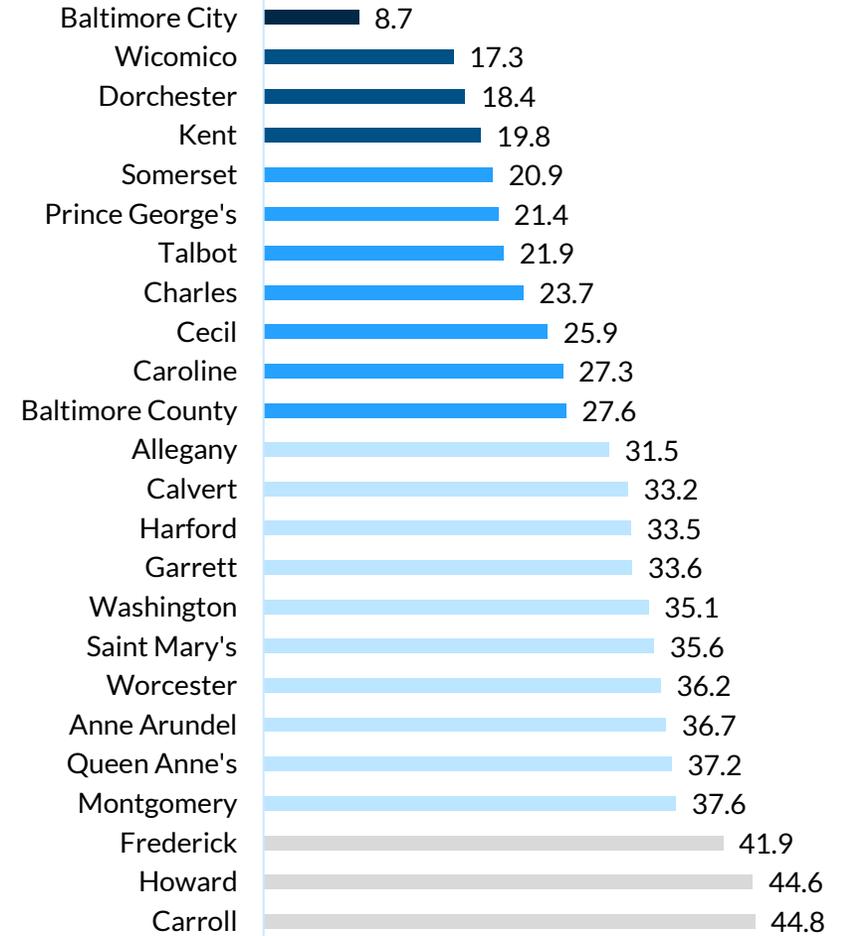
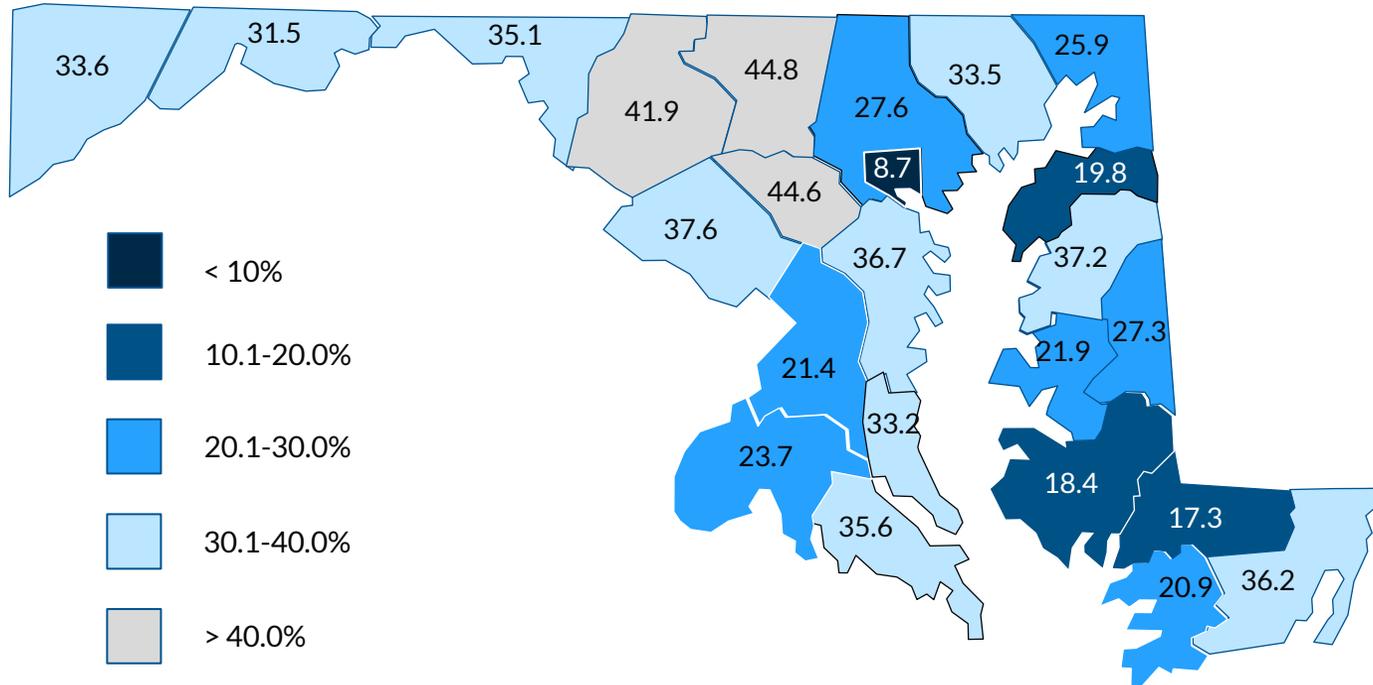


Student Group



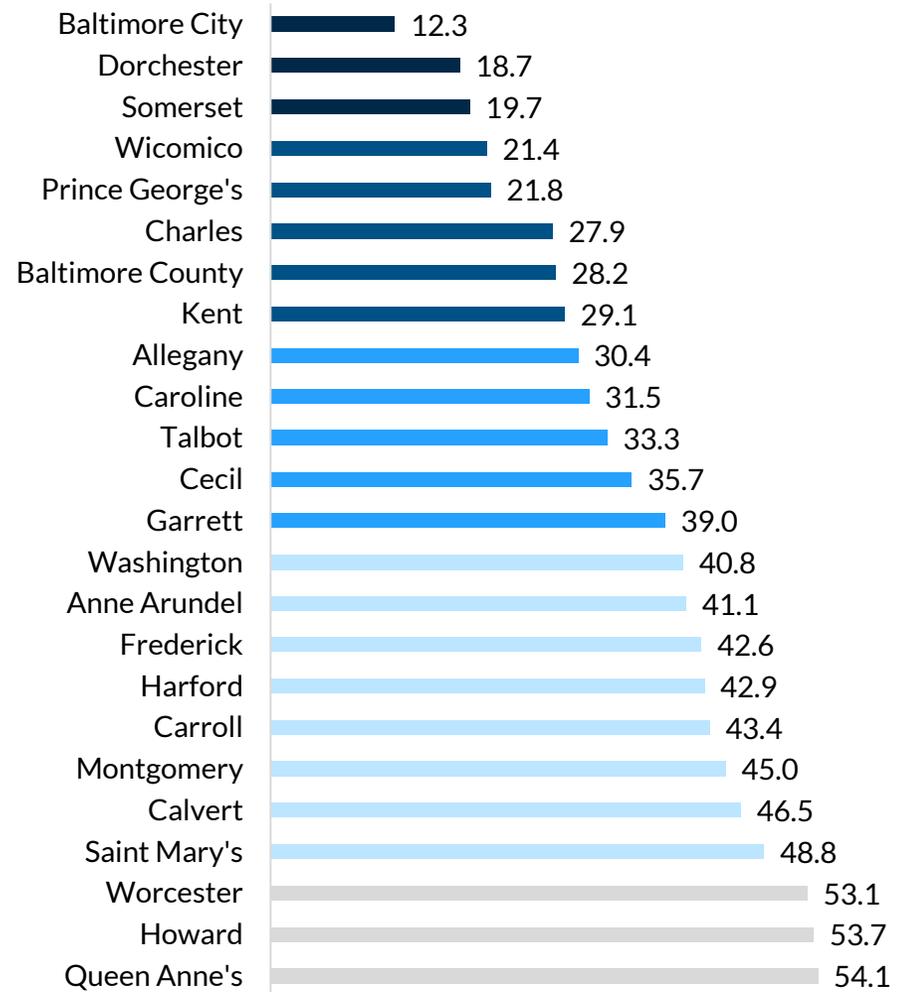
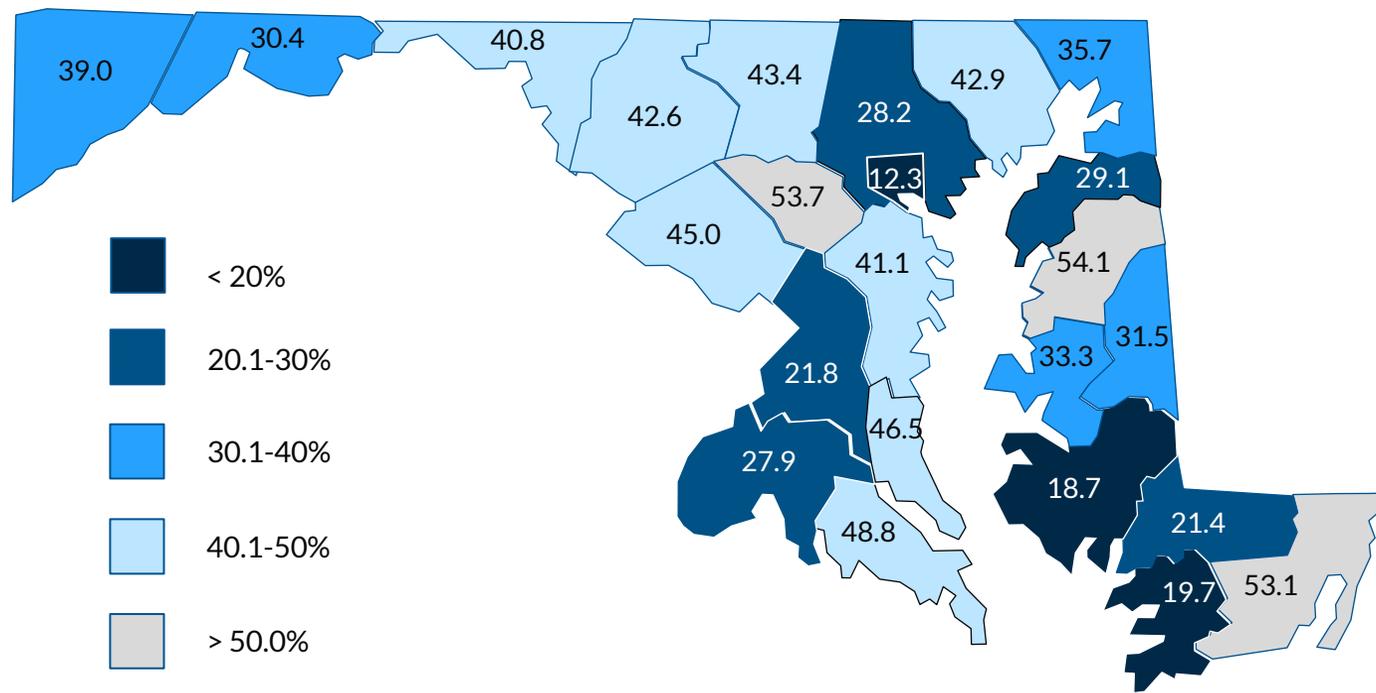
Science Grade 5, SY 2021-2022 Proficiency by LEA

Thirteen LEAs with Grade 5 science proficiency exceeding the state proficiency of 30.6%.



Science Grade 8, SY 2021-2022 Proficiency by LEA

Thirteen LEAs with Grade 8 science proficiency exceeding the state proficiency of 35.4%.



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MCAP Reporting Timeline

Timeline for release of the SY 2021-2022 Assessment Results and Future

Timeline for Assessment Data Release

Maryland will be releasing SY 2021-2022 data as available with the expected timeline provided below. The release of assessment data is delayed due to the requirement for standard setting for all new assessments. In future years, **Maryland will continue to prioritize a rapid release of assessment data and provide as soon as data is available.**

Assessment	July	August	September	October	November	December	January
Science Grade 5 and 8		X					
Dynamic Learning Map (DLM) Maryland Alternate Assessment math, reading, science			X				
Government High School				X			
Life Science Maryland Integrated Science Assessment (LS MISA)				X			
English Language Proficiency, Alternate English Language Proficiency						X	
Kindergarten Readiness Assessment						X	
Mathematics, English Language Arts							X

Maryland Testing Windows

- The Maryland State Department of Education determines testing windows for the state
- Each Local Education Agency (LEA) designates the LEA testing window that falls within the state testing window

2022-2023 State Testing Windows	
Testing Window	Assessment
August 10, 2022 - October 10, 2022	Kindergarten Readiness Assessment (KRA)
December 5, 2022 - January 20, 2023*	Fall Block for High School ELA 10, Algebra I, Algebra II and Geometry
January 3, 2023 - January 13, 2023	WINTER WINDOW A End of Course (EOC) Government and LS MISA
January 17, 2023 - January 17, 2023	WINTER WINDOW B End of Course (EOC) Government and LS MISA
January 9, 2023 - February 27, 2023	ACCESS for ELLs (Primary Window)-TENTATIVE
February 21, 2023 - March 3, 2023	ACCESS for ELLs (Make up Window)-TENTATIVE
March 6, 2023 - March 24, 2023*	Science (MISA 5&8)
March 13, 2023 - May 19, 2023	DLM Alternate Assessments (ELA/Mathematics and Science)
April 3, 2023 - May 26, 2023*	MCAP ELA (Grades 3-8 and 10)
April 3, 2023 - May 26, 2023*	MCAP Mathematics (Grades 3-8, Algebra I, Algebra II, and Geometry)
May 1, 2023 - May 12, 2023	SPRING WINDOW A End of Course (EOC) Government and LS MISA
May 15, 2023 - May 26, 2026	SPRING WINDOW B End of Course (EOC) Government and LS MISA
May 1, 2023 - May 26, 2023	Social Studies 8
July 24, 2023 – July 28, 2023	SUMMER WINDOW End of Course (EOC) Government and LS MISA

*Paper Administration ends at least one week before this date.

Testing calendar: <https://marylandpublicschools.org/programs/Documents/Testing/TestingCalendar2022-2023.pdf>

Individual Student Reports (ISRs)

- Each Maryland Student taking a state assessment will receive an Individual Student Report
- The ISR provides information on how a student performed on content standards, and provides a comparison to peers in their school, LEA and the state
- Maryland will be enhancing reporting as part of the Maryland Comprehensive Assessment Program to **improve the connection between assessment results and resources for families and educators.**

Maryland Comprehensive Assessment Program
GRADE 3 MATH

FIRSTNAME M. LASTNAME
Date of Birth: 12/31/2014 ID: MA04040042 **Grade: 3**
SAMPLE DISTRICT NAME
SAMPLE SCHOOL ONE NAME
MARYLAND
SPRING 2022

Mathematics Assessment Report, 2021–2022

This report shows the level of proficiency attained by FIRSTNAME on this assessment. This assessment is just one measure of how well your child is performing academically.

To try the tools and functionality of the testing platform as well as grade/course level items, visit the Practice Tests found at Test Preparation on <http://support.mdassessments.com>.

Learn more about Maryland's College and Career Ready Standards
These rigorous education standards establish a set of shared goals for what students should understand and be able to do in grades K-12 in order to be prepared for success in college and the workplace. You can learn more about Maryland's K-12 standards at: <http://marylandpublicschools.org/programs/Pages/ELA/MCCR.aspx>.

See side 2 of this report for specific information on your child's performance in mathematics.

How Can You Use This Report?
Ask your child's teachers:

- What do you see as my child's academic strengths and areas for improvement?
- How will you use these test results to help my child make progress this school year?

How Did FIRSTNAME Perform Overall?

Performance Level 1

Level 4 Distinguished Learner

Level 3 Proficient Learner

Level 2 Developing Learner

Level 1 Beginning Learner

A description of the Performance Levels can be found on the back of this page.

Your child's score

722

School Average 730

LEA Average 730

State Average 737

How Students in Maryland Performed

How are assessment results used?
Results from the assessment give your child's teacher, school, and school district information about their academic performance, and provide you with some insight as to your child's level of learning. These results should be used with other assessment results and class work when gauging student performance.

How Did Your Child Perform in Areas of Mathematics?

CONTENT

Your child performed about the same as other **Proficient or Distinguished Learners** who demonstrated proficiency or advanced proficiency of the grade level content. Students demonstrate proficiency of the grade level content by solving problems involving conceptual understanding, procedural knowledge, and application of operations and algebraic thinking, place value, fractions, measurement, data and geometry.

REASONING

Your child performed about the same as other **Developing Learners** who demonstrated partial proficiency of mathematical reasoning for this course or grade level. Students demonstrate proficiency of mathematical reasoning by solving problems and providing solutions that exhibit an ability to reason mathematically based on the course or grade level content.

MODELING

Your child performed about the same as other **Proficient or Distinguished Learners** who demonstrated proficiency or advanced proficiency of mathematical modeling for this course or grade level. Students demonstrate understanding of mathematical modeling by solving problems and providing solutions that exhibit the ability to apply the modeling process based on the course or grade level content.

LEGEND
Your child performed about the same as:

● Distinguished or Proficient Learners ● Developing Learners ● Beginning Learners

Mathematics Performance Level Descriptions

Level 4 Distinguished Learners: *Distinguished Learners demonstrate advanced proficiency in solving complex problems involving mathematical operations, fractions, and measurements and demonstrates an ability to connect multiple grade-level concepts in order to conceptualize and apply mathematics to model, reason through, and solve problems efficiently, and relate mathematics to the real world. The students are well prepared for the next grade level or course and are well prepared for college and career readiness.*

Level 3 Proficient Learners: *Proficient Learners demonstrate proficiency in solving problems involving ratios, proportional relationships, mathematical operations, fractions, and measurements, and demonstrates an ability to conceptualize and apply mathematics to model, reason through, and solve problems efficiently, and relate mathematics to the real world. The students are prepared for the next grade level or course and are on track for college and career readiness.*

Level 2 Developing Learners: *Developing Learners demonstrate partial proficiency in solving problems involving mathematical operations, fractions, and measurements, and may need some support in conceptualizing and applying mathematics to model, reason through, and solve problems efficiently, and in relating mathematics to the real world. The students need additional academic support to ensure success in the next grade level or course and to be on track for college and career readiness.*

Level 1 Beginning Learners: *Beginning Learners do not yet demonstrate proficiency in solving problems involving mathematical operations, fractions, and measurements where the required mathematics is either directly indicated or uses common grade level procedures, and typically needs support in conceptualizing and applying mathematics to model, reason through, and solve problems efficiently, and in relating mathematics to the real world. The students need substantial academic support to be prepared for the next grade level or course and to be on track for college and career readiness.*

Questions?