

BALTIMORE CITY
PUBLIC SCHOOLS

Baltimore City Council Education, Workforce and Youth Committee: Math Update

Dr. Sonja B. Santelises,
Chief Executive Officer

April 27, 2023



National test scores show Maryland fourth graders fell farther behind than most U.S. students

By [Liz Bowie](#)

Published on: October 24, 2022 12:01 AM EDT | Updated on: October 25

The New York Times

Math Scores Fell in Nearly Every State, and Reading Dipped on National Exam

By [Sarah Mervosh](#) and [Ashley Wu](#)

Oct. 24, 2022



NAEP 'Nation's Report Card' Shows Steep Fall in Math Scores

By Daniel Mollenkamp

Oct 24, 2022

Scores fall coast to coast, especially in math, under pandemic's toll



By [Laura Meckler](#)

Updated October 24, 2022 at 2:57 p.m. EDT | Published October 24, 2022 at 12:01 a.m. EDT

The Washington Post
Democracy Dies in Darkness

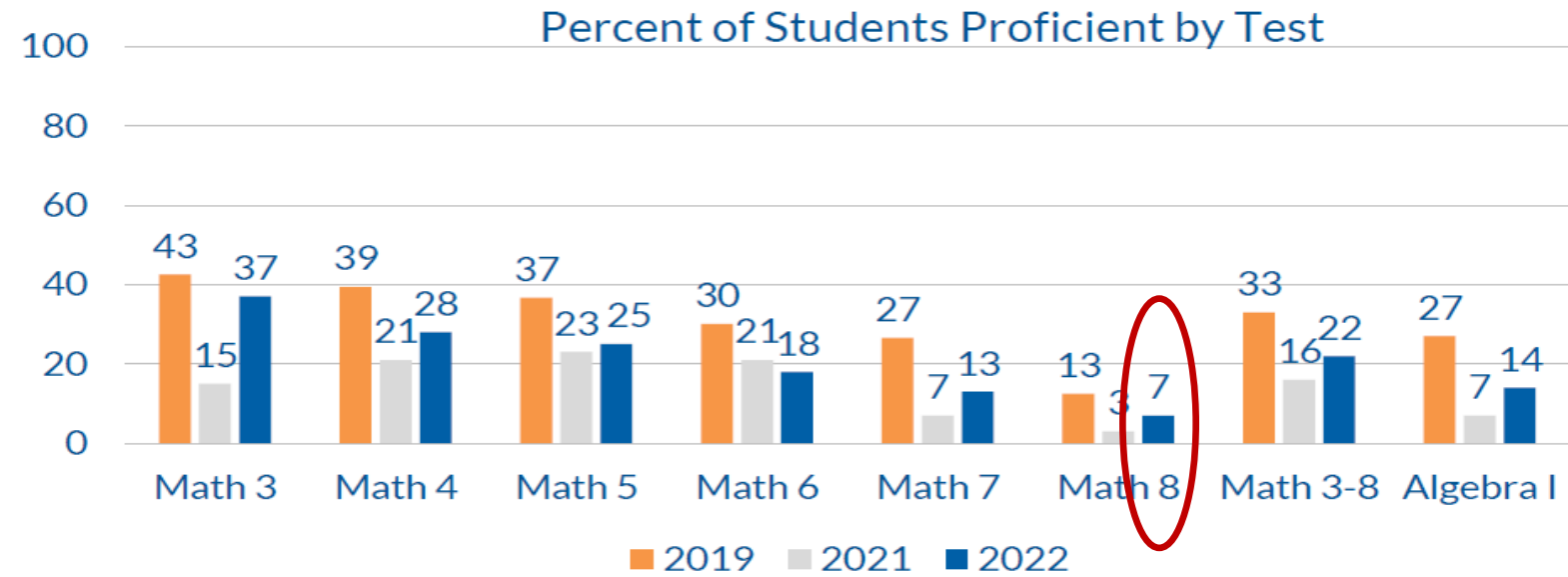
Maryland's Math Data



Mathematics Results

Mathematics Assessment Trends

In Maryland, most grades in mathematics have improved as compared to the Early Fall 2021 assessments. Students have not returned to pre-pandemic performance outcomes when comparing to SY 2018-2019.



Test	Tested Count 2019	Tested Count 2021	Tested Count 2022
Math 3	66,364	61,706	63,246
Math 4	68,307	63,336	63,730
Math 5	69,786	60,827	64,979
Math 6	67,762	62,902	63,178
Math 7	58,120	56,078	56,279
Math 8	36,356	33,658	41,265
Math 3-8	366,695	338,507	352,677
Algebra I	98,988	59,623	76,608

Note: SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021. SY 2021-2022 data as of December 19, 2022.

Our Work in Math Improvement



Workgroup Members: principal supervisors, math teachers, school leaders, school math leads, math content liaisons, special education liaisons, Teaching & Learning offices: Math, Multilingual Learning, Gifted and Advanced Learning

National Partners: Great Minds, Zearn, Amplify, Curriculum Associates, Johns Hopkins University, The Gates Foundation, Leading Educators

Math Improvement Plan SY 23-24

- Strong First Teach: Prioritized Content
- High-quality Instructional Materials
- Instructional Strategy
- Increasing Adult Capacity: Teachers, Coaches, & Leaders
- Strategic Recruitment
- Family Engagement

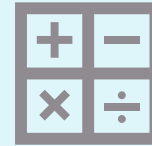


Instructional Strategy Priorities



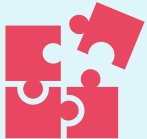
Systematic Instruction:

Provide systematic and spiraled instruction during intervention to develop student understanding of mathematical ideas.



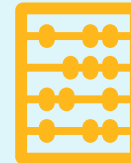
Mathematical Language:

Teach clear and concise mathematical language and support students' use of the language to help students effectively communicate their understanding of mathematical concepts.



Representations:

Use a well-chosen set of concrete and semi-concrete representations to support students' learning of mathematical concepts and procedures.



Number Lines:

Use the number line to facilitate the learning of mathematical concepts and procedures, build understanding of grade-level material, and prepare students for advanced mathematics.



Word Problems:

Provide deliberate instruction on word problems to deepen students' mathematical understanding and support their capacity to apply mathematical ideas.



Fluency:

Expanding beyond speed and into efficient use of math strategies.

Family Engagement

- Host summer & Back-to-School Events to share parent resources, curriculum, and intervention options
- Engage parents and students in the development and review of Student Learning Plans (SLP) to support identification of goals, interventions, and supports
- Develop Parent Guides to provide information to families on critical math concepts
- Continue to strengthen collaboration with OCEE to support year-long engagement with families



Next Steps

To learn more about our Math
Improvement Plan:

Join us at the May 2nd Teaching &
Learning Board Committee Meeting
– 3pm on Teams.



BOARD OF SCHOOL COMMISSIONERS SENIOR MANAGEMENT TEAM

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Ronald S. McFadden, *Vice-Chair*
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Andrew Coy
Ashley Esposito
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Dr. Jennie Wu, *Executive Director - Strategy and Continuous Improvement*

Appendix

Related Articles and Research

- McKinsey: <https://www.mckinsey.com/industries/education/our-insights/covid-19-learning-delay-and-recovery-where-do-us-states-stand>
- Ed Surge: <https://www.edsurge.com/news/2022-10-24-naep-nation-s-report-card-shows-steep-fall-in-math-scores>
- NY Times: <https://www.nytimes.com/2022/09/01/us/national-test-scores-math-reading-pandemic.html>
- Curriculum Associates: https://www.curriculumassociates.com/-/media/mainsite/files/corporate/state-of-student-learning-2022.pdf?_ga=2.36256800.1089581492.1681311402-95467094.1681311402
- Council of the Great City Schools Press Release – NAEP results - <https://www.cgcs.org/cms/lib/DC00001581/Centricity/ModuleInstance/2247/TUDA%20Press%20Release--Final%20.pdf>
- MSDE Press Release: <https://news.maryland.gov/msde/marylands-scores-reflect-nationwide-learning-loss-trends-in-national-assessment-of-educational-progress-naep/>
- Baltimore City Press Release : <https://www.baltimorecityschools.org/NAEP2022>
- Baltimore City MCAP Press Release : <https://www.baltimorecityschools.org/MCAP-2022>

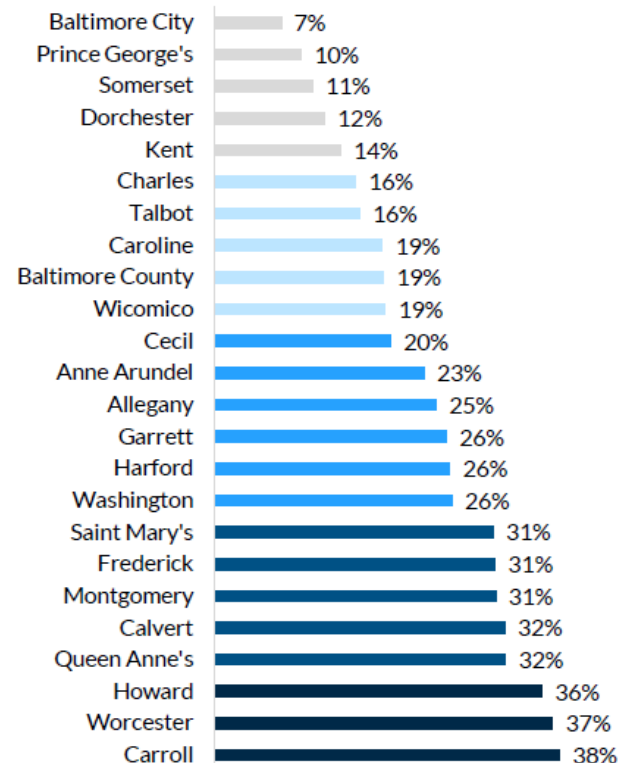
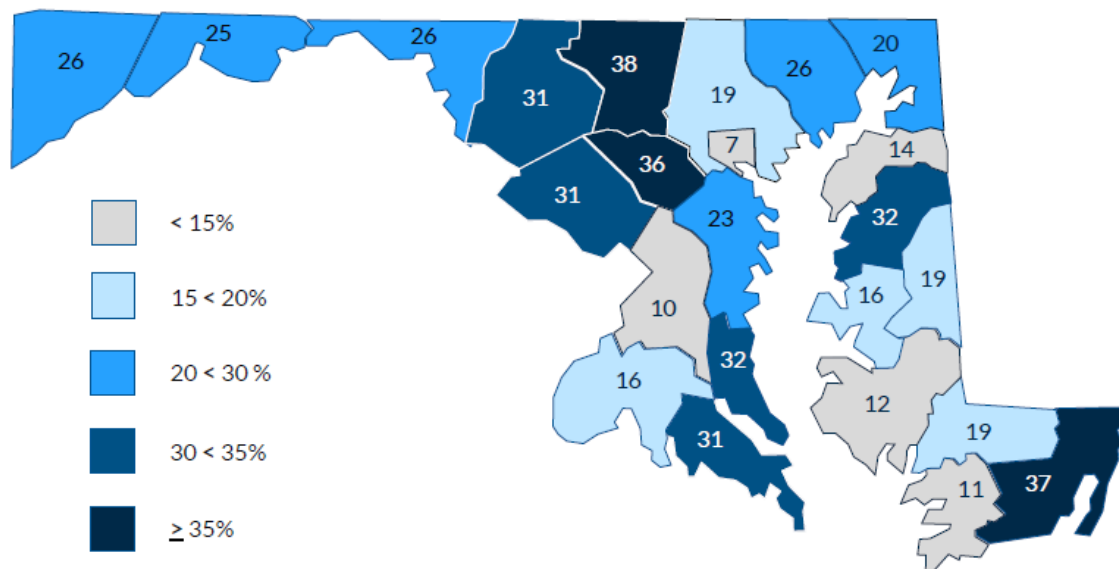
Maryland's Math Data



Mathematics Results

Mathematics Grade 3-8 Tests by LEA, SY 2021-2022

Statewide, the percentage of students scoring proficient on math grade 3-8 tests is 22% for SY 2021-2022. LEAs vary from a low of 7% to a high of 38% in proficiency percentage.



Note: SY 2021-2022 data as of December 19, 2022.

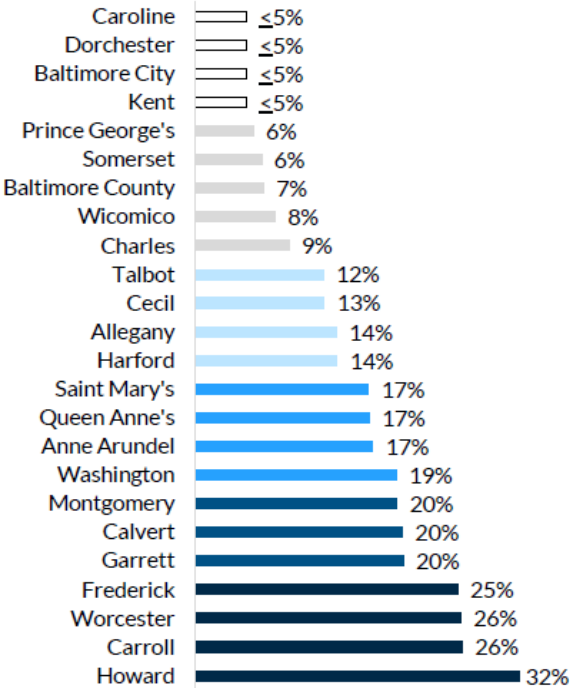
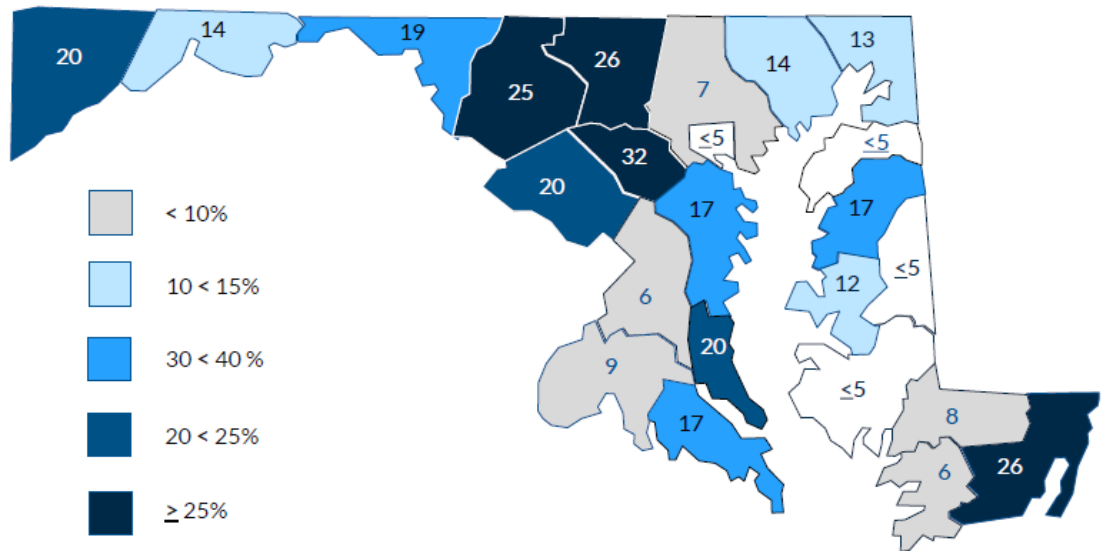
Maryland's Math Data



Mathematics Results

Algebra I Test by LEA, SY 2021-2022

Statewide, the percentage of students scoring proficient on the Algebra I test was 14% for SY 2021-2022. LEAs vary from a low of <5% to a high of 32% in proficiency percentage.



Note: SY 2021-2022 performance data as of December 19, 2022.

Trends in PARCC Math and MCAP 3-8 Proficiency Rates for City Schools & Maryland

After showing growth over 5 years on the PARCC assessment prior to the pandemic, Maryland changed the state assessment to the MCAP. Based on the new MCAP assessment, proficiency declined in 2021-2022, mirroring declines across the state.

