



Mohammed Choudhury
State Superintendent of Schools

TO: Members of the State Board of Education
FROM: Mohammed Choudhury, State Superintendent of Schools
DATE: August 22, 2023
SUBJECT: 2023 English Language Arts, Mathematics, and Science Assessment Results

Purpose

The 2023 Maryland Comprehensive Assessment Program (MCAP) English language arts (ELA), mathematics, and science assessment results are provided for your information.

Background/Historical Perspective

The Every Student Succeeds Act (ESSA) requires states to assess students in English Language Arts (ELA) and mathematics annually for students in grades 3-8 and once in high school. ESSA also requires states to assess students in science once in each grade span (3-5, 6-8 and high school). The Maryland State Department of Education administered the new MCAP ELA and mathematics assessments to Maryland students in school year 2021-2022. The new MCAP ELA and math tests replaced the Partnership for Assessment of Readiness for College and Career (PARCC) tests which were last administered in the 2018-2019 school year. The Maryland Integrated Science Assessment (MISA) is MCAP's Maryland's Next Generation Science Standards (NGSS)-aligned standardized science assessment for grades 5 and 8, replacing the Maryland State Assessment (MSA) grade 5 and grade 8 Science test and the High School State Assessment (HSA) Biology tests in all Maryland schools beginning with the 2017-2018 school year.

Executive Summary

Results of the 2023 English language arts, mathematics, and science assessments, including student group data and Local Education Agency (LEA) results are presented. The presentation also includes an analysis of the performance of cohorts of students over time and examines data for students on the cusp of proficiency.

The topics covered include the following:

- SY 2022-2023 Assessment Result Highlights
- English Language Arts Results
- Mathematics Results
- On the Cusp of Proficiency
- Science Results Grade 5, 8
- Cohort Analysis
- MCAP Timeline, Reporting and Enhancements

Action

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

Attachments

MCAP_SBOE_2023_ELA_math_science_08.15.23

2023 English Language Arts, Mathematics, and Science Assessment Results

MARYLAND STATE BOARD OF EDUCATION | August 22, 2023

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





PRESENTATION OUTLINE

1. SY 2022-2023 Assessment Result Highlights
2. English Language Arts Results
3. Mathematics Results
4. On the Cusp of Proficiency
5. Science Results Grade 5, 8
6. Cohort Analysis
7. MCAP Timeline, Reporting and Enhancements

SY 2022-2023 Maryland Comprehensive Assessment Program Results Highlights (1 of 2)

- ELA proficiency rates for grades 3-8 combined and English 10 are the highest since the State transitioned to the PARCC tests in 2015. This trend is consistent across most student groups, including race/ethnicity and gender.*
- ELA proficiency in grade 3 increased by 2 percentage points from SY 2021-2022 to 48% in SY 2022-2023, and the grade 3 ELA proficiency rate reached a nine-year high.
- Math proficiency rates for grades 3-8 combined and in Algebra I have improved since SY 2021-2022 but have not yet returned to pre-pandemic performance. This trend is consistent across most student groups, including race/ethnicity and gender.
- Between 16 and 22% of students in ELA and between 11 and 17% of students in math were on the cusp of proficiency, defined as needing, on average, an additional 1-3 correct answers to reach proficiency.
- The percentage of students scoring at the lowest MCAP performance level decreased by 2 to 5 percentage points from SY 2021-2022 to SY 2022-2023 for both ELA and math in grades 3-8 combined, English 10, and Algebra I.

* The 2021 assessment was a modified assessment that was administered in the fall of the 2021-2022 school year, and it is not included in the trend.

SY 2022-2023 Maryland Comprehensive Assessment Program Results Highlights (2 of 2)

- The percentage of students in grade 5 that met science proficiency increased nearly four percentage points from SY 2021-2022 to 35% in SY 2022-2023. Results on the grade 8 science test, which is a cumulative assessment, are still impacted by the effects of the pandemic.
- **Notable gains were seen for most student groups in grade 5.** Proficiency increased nearly six percentage points for economically disadvantaged students, and encouraging gains were seen for students with disabilities, with proficiency increasing from 8% in SY 2021-2022 to 11% in SY 2022-2023.
- The SY 2022-2023 MCAP science assessment **saw fewer grade 8 students proficient than in SY 2021-2022**, with 26% of grade 8 students reaching proficiency as compared to 35% in the prior year. **The results on the grade 8 assessment make clear the impact of grade 6 and 7 disruptions on a cumulative grade 8 assessment.**
- **Despite increases in proficiency rates for almost all student groups, persistent achievement gaps remain, and historically underserved student groups need to improve at faster rates to narrow these gaps.**

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1. English Language Arts Results
 2. Mathematics Results
 3. On the Cusp of Proficiency
 4. Cohort Analysis
 5. Science Results
 6. MCAP Timeline, Reporting and Enhancements

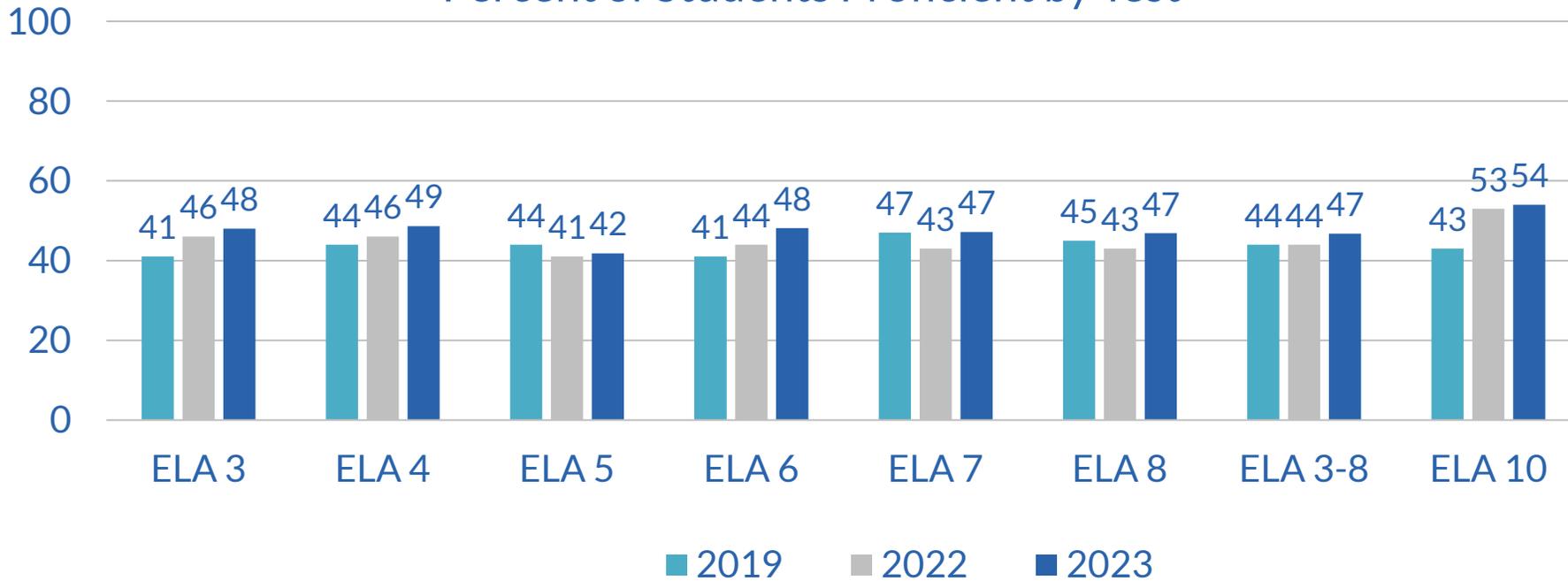
English Language Arts Results

*The Maryland Comprehensive Assessment Program release of 2023
English language arts data.*

English Language Arts (ELA) Assessment Trend

Maryland students have returned to pre-pandemic performance. The percent of students proficient in SY 2022-2023 was higher than the student proficiency rate in SY 2018-2019 across nearly all tests.

Percent of Students Proficient by Test

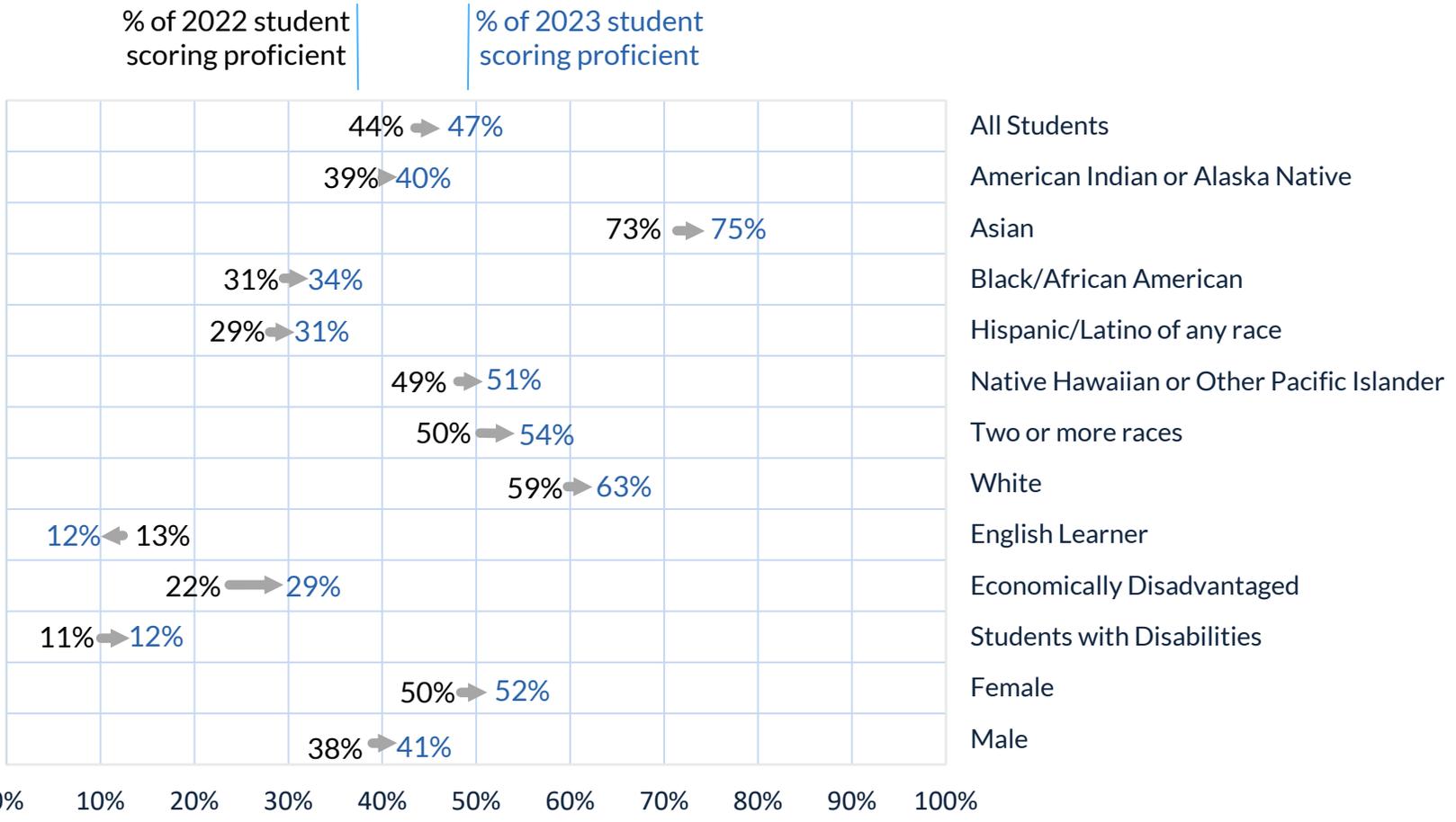


Test	Tested Count 2019	Tested Count 2022	Tested Count 2023
ELA 3	66,062	62,536	63,451
ELA 4	67,978	62,974	63,675
ELA 5	69,513	64,282	63,908
ELA 6	67,866	62,913	63,397
ELA 7	65,821	64,445	63,342
ELA 8	64,166	66,265	65,297
ELA 3-8	401,406	383,415	383,070
ELA 10	88,820	68,826	73,422

Note: SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021 and are excluded from the trend. SY 2022-2023 data as of August 14, 2023.

English Language Arts Grade 3-8 Assessments by Student Group

Statewide, nearly all student groups experienced an increase in proficiency rates in ELA grade 3-8 tests in SY 2022-2023 as compared to the SY 2021-2022 results.



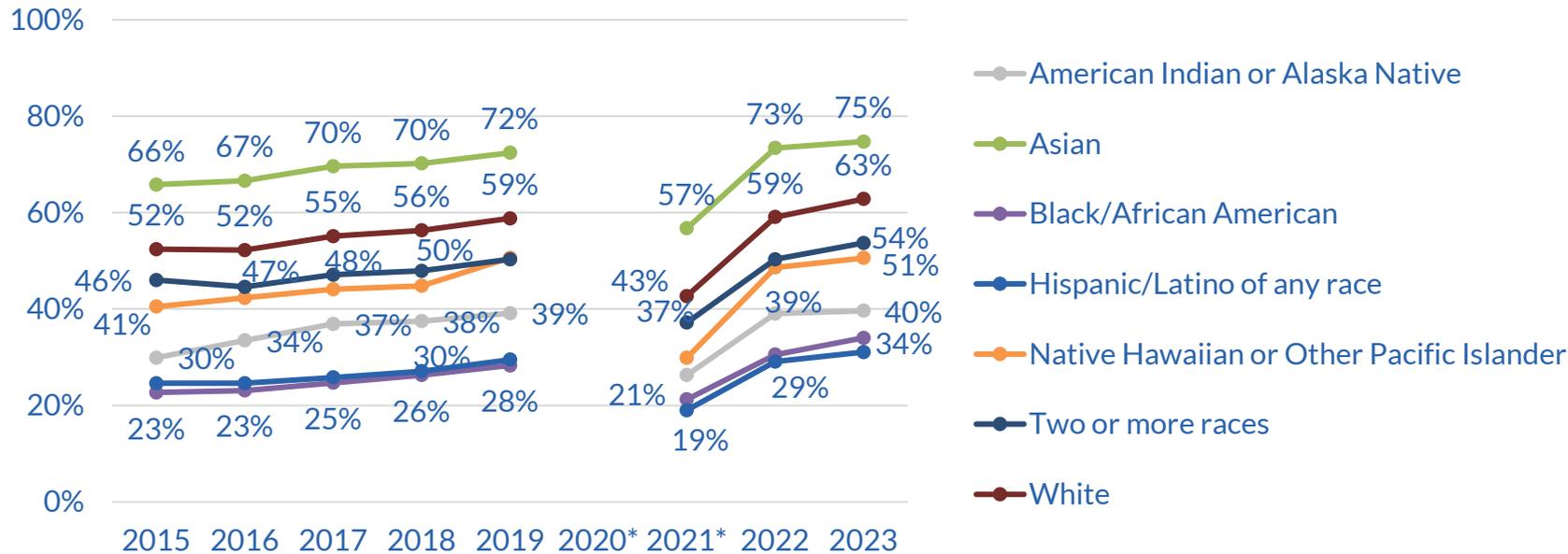
Student Groups	2022 Tested Count	2023 Tested Count
All Students	383,415	383,070
American Indian/Alaska Native	1,004	941
Asian	26,012	26,173
Black/African American	126,297	125,741
Hispanic/Latino	79,409	82,286
Native Hawaiian/Pacific Islander	539	518
White	129,717	126,655
Two or more races	20,215	20,667
Students with Disabilities	43,768	45,045
English Learner	43,311	44,452
Economically Disadvantaged	105,443	148,974
Female	187,759	187,082
Male	195,397	195,798

Note: SY 2022-2023 data as of August 14, 2023.

English Language Arts Grade 3-8 Assessment Trend by Race/Ethnicity

Nearly all race/ethnicity student groups have improved their ELA grade 3-8 assessment performance when comparing SY 2022-2023 to pre-pandemic performances.

Proficiency Trend by Race/Ethnicity



Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	+1	+1
Asian	+2	+1
Black/African American	+6	+3
Hispanic/Latino	+2	+2
Na HI or Other Pac. Islander	0	+2
2+ Races	+3	+3
White	+4	+4

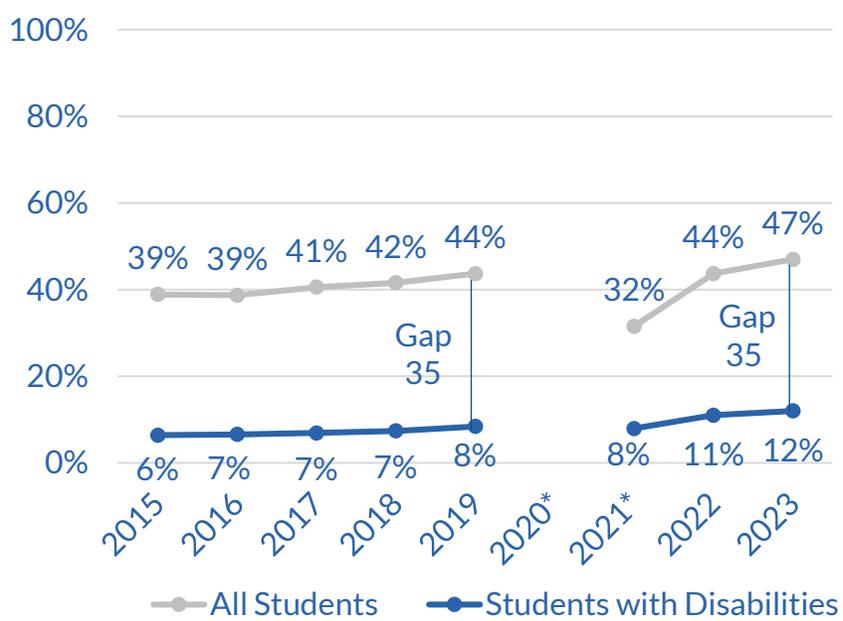
*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic. SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021. SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

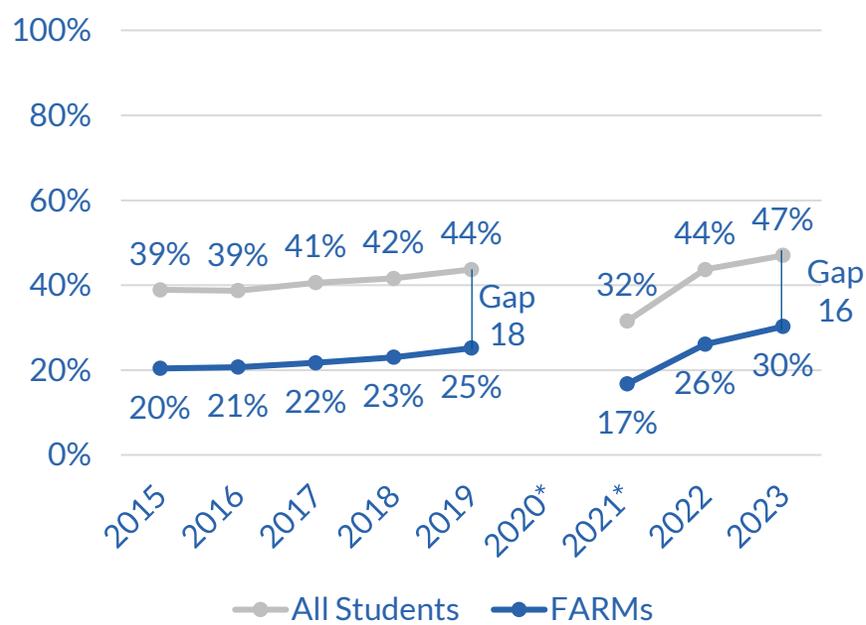
English Language Arts Grade 3-8 Assessment Trend by Student Group

Students with disabilities, FARMs eligible and English learners have surpassed their pre-pandemic performance on ELA grade 3-8 tests, although the gaps between these groups compared to all students have remained consistent.

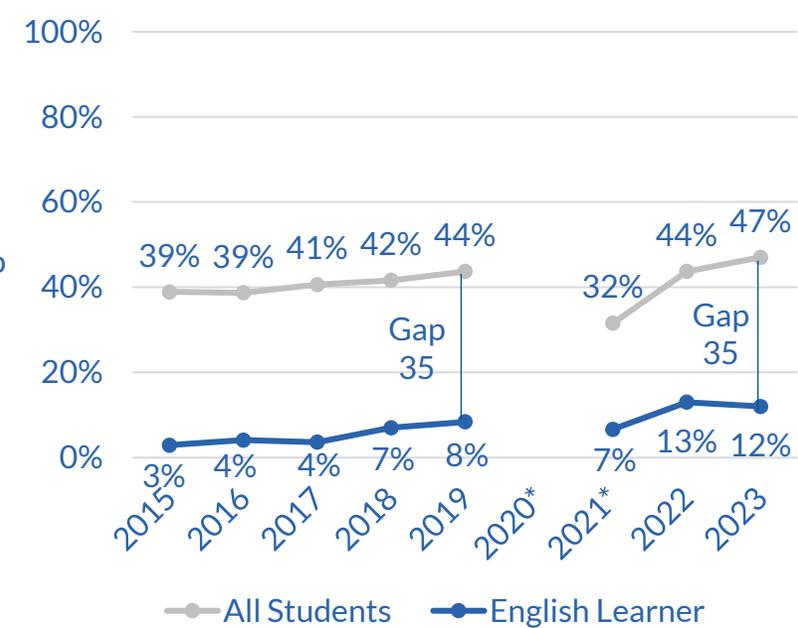
Students with Disabilities Proficiency Trend



FARMs Proficiency Trend



English Learner Proficiency Trend

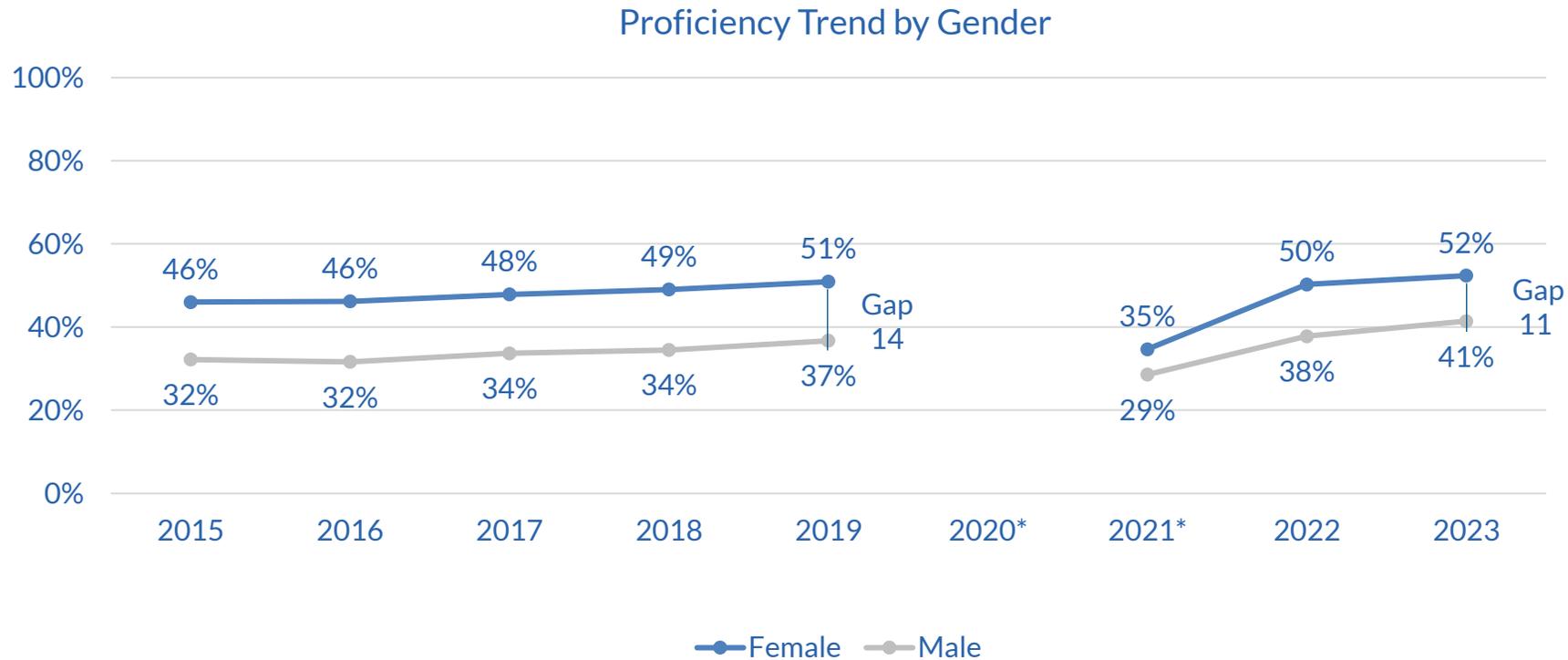


*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
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SY 2022-2023 data as of August 14, 2023.

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English Language Arts Grade 3-8 Assessment Trend by Gender

The female student group continues to outperform the male student group in grade 3-8 ELA assessments, though the gap has narrowed compared to pre-pandemic results.

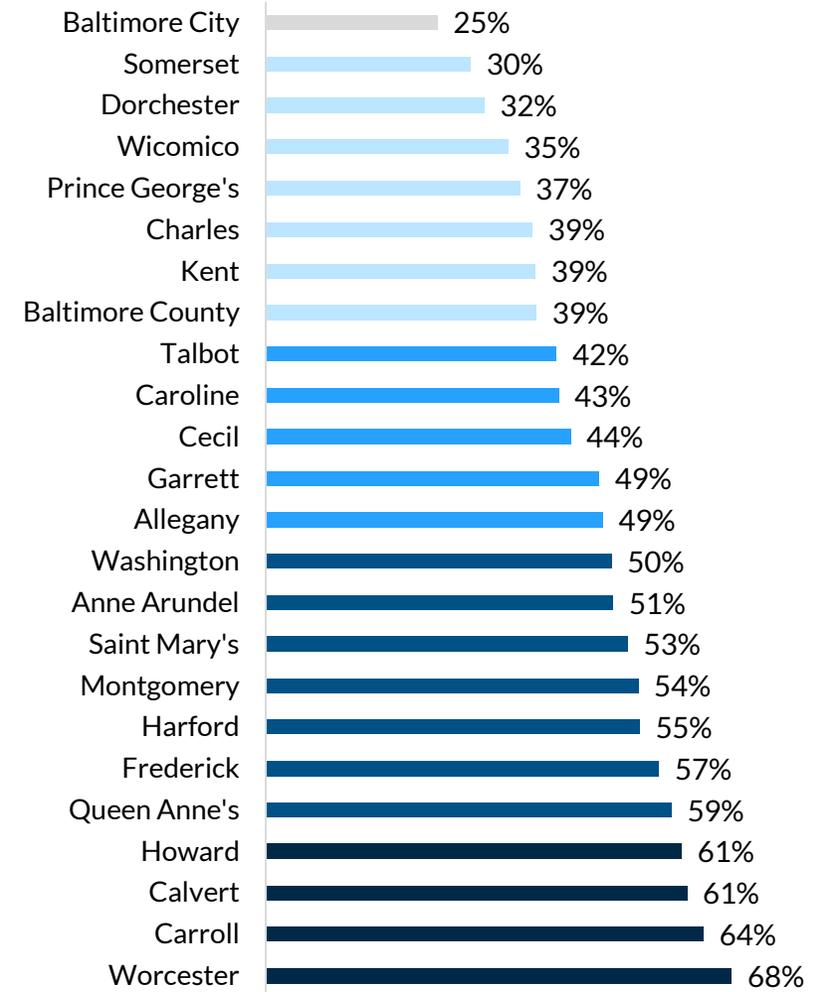
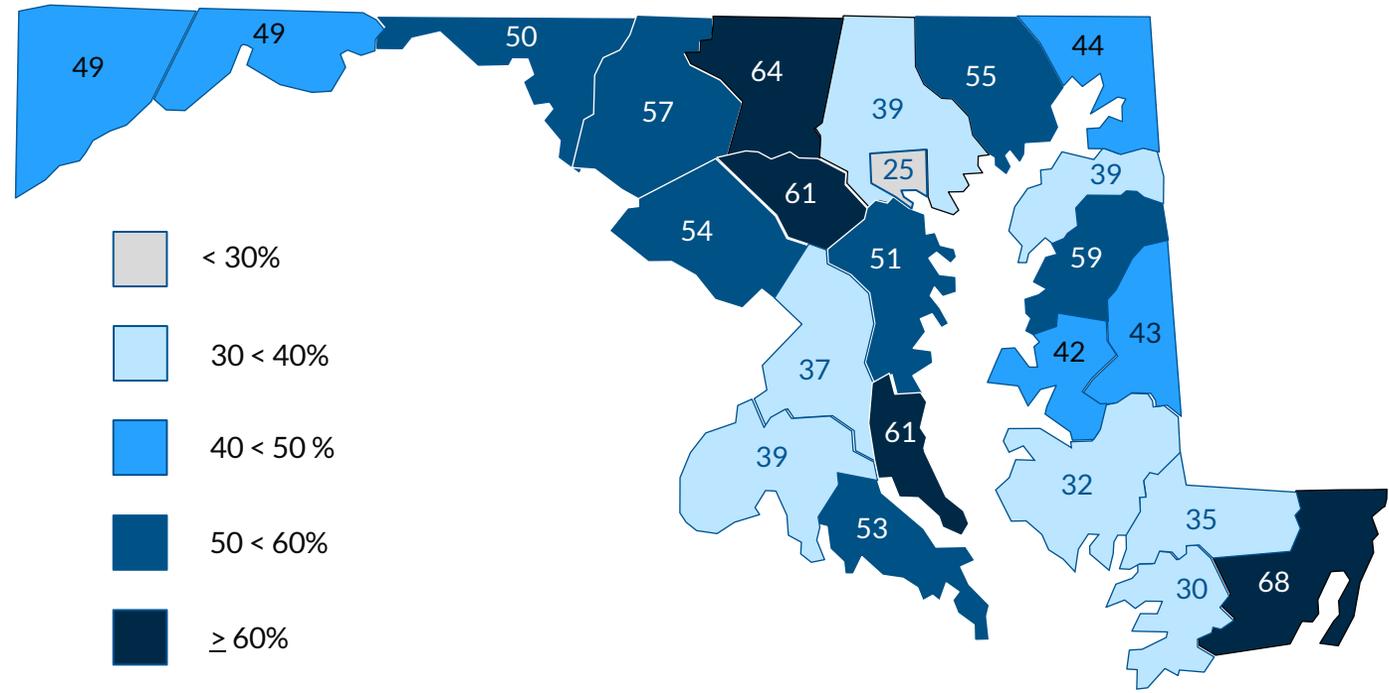


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English Language Arts Grade 3-8 Assessments by LEA, SY 2022-2023

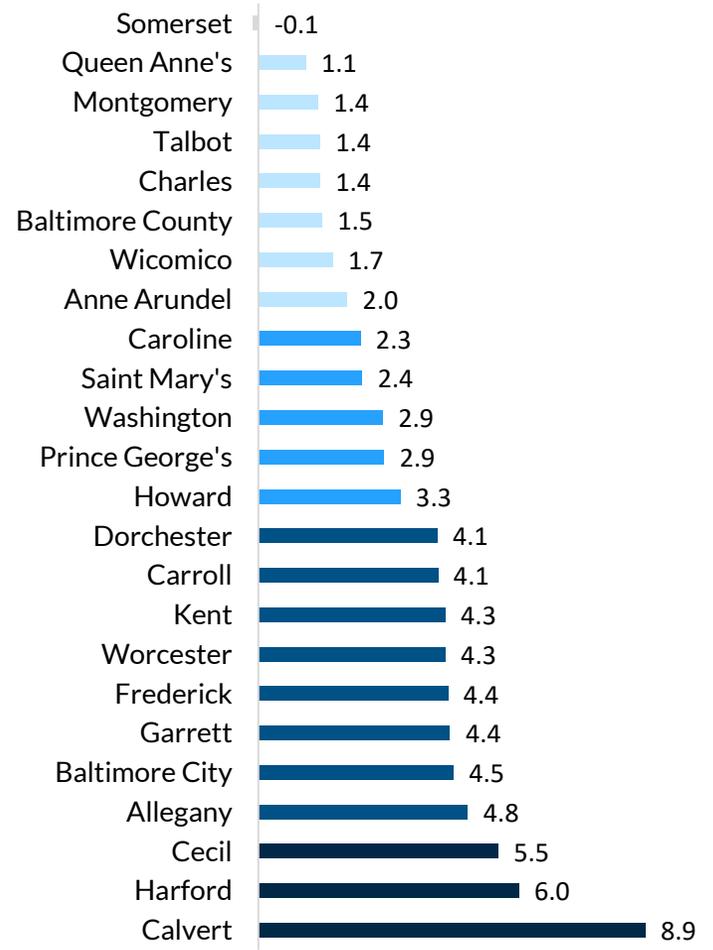
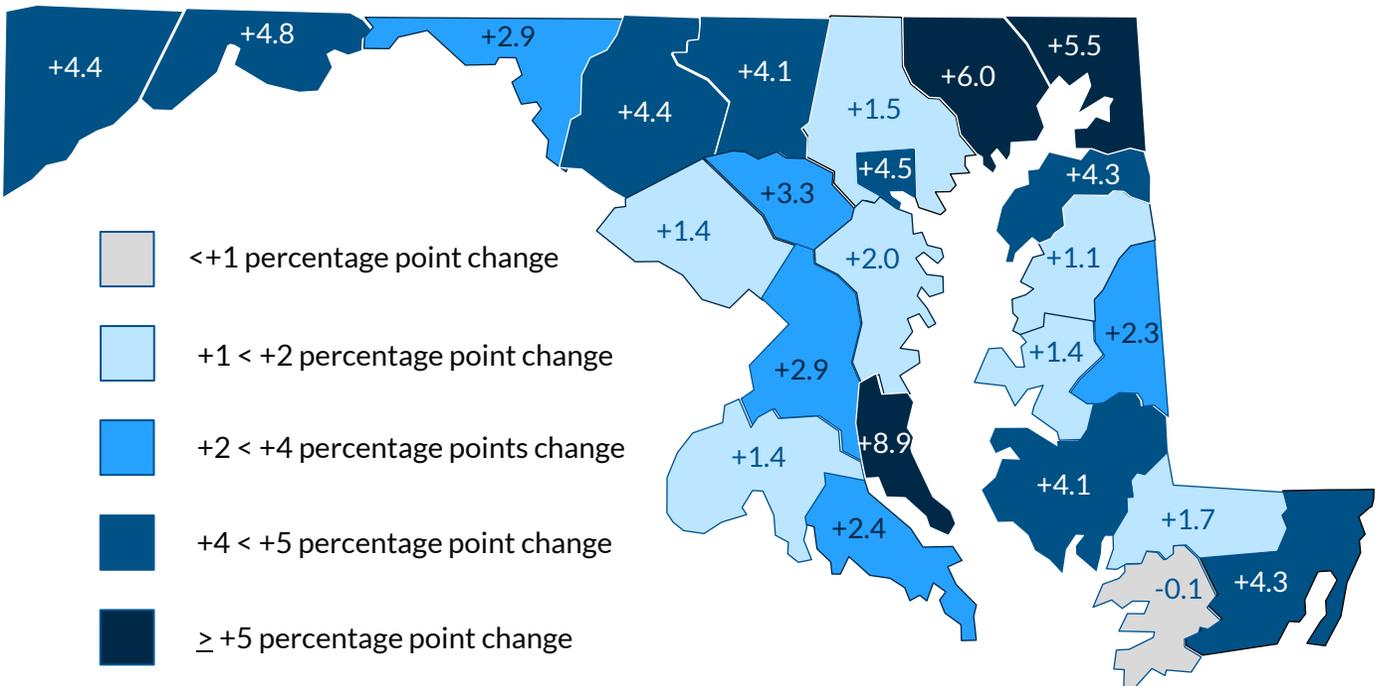
Statewide, 47% of students are proficient in ELA grade 3-8 tests. LEAs vary from a low of 25% to a high of 68% in the student proficiency rate. Twenty-three of 24 LEAs improved from SY 2021-2022 to SY 2022-2023.



Note: SY 2022-2023 data as of August 14, 2023.

English Language Arts Grade 3-8 Assessments by LEA, SY 2022-2023 Compared to SY 2021-2022

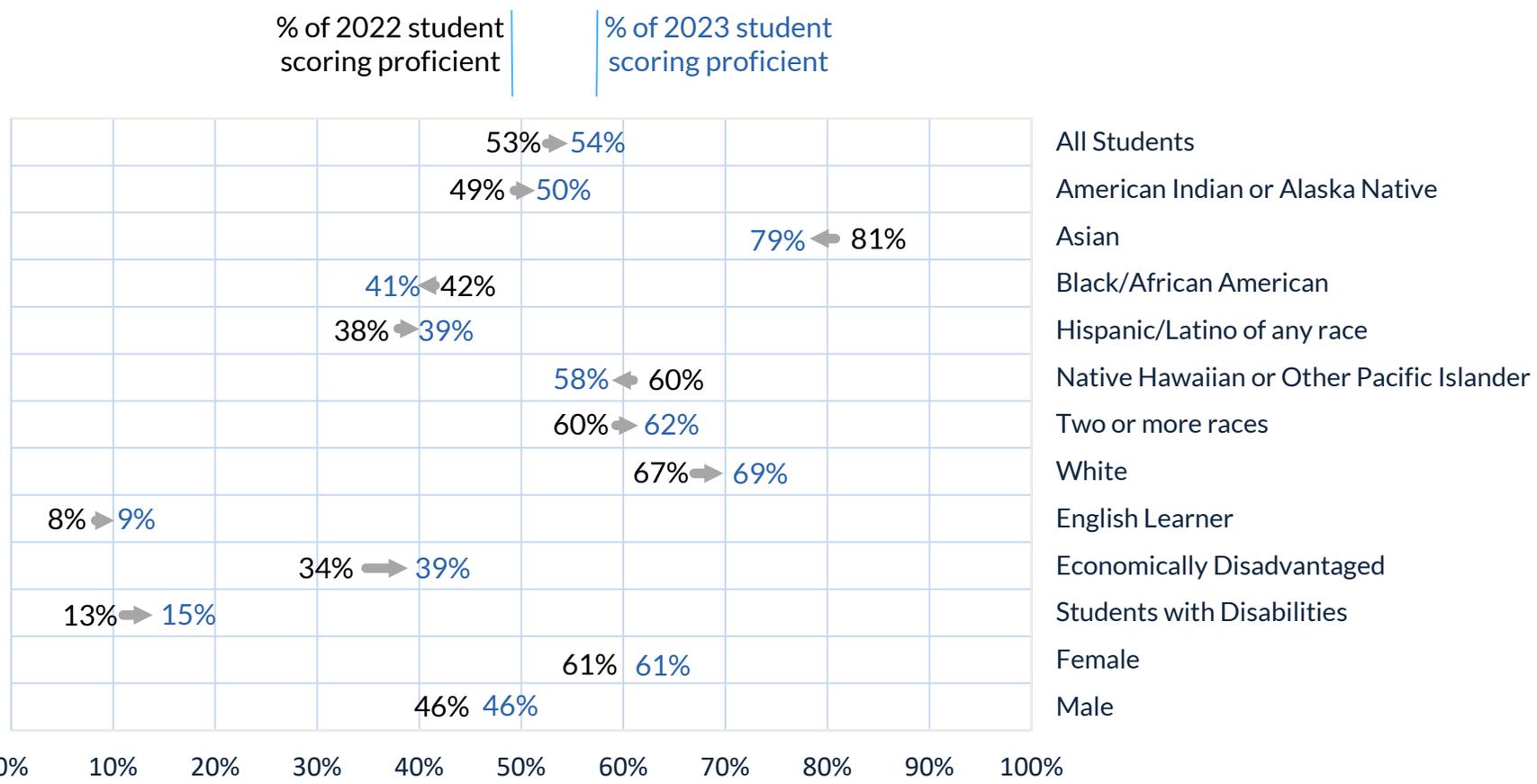
Statewide, the percentage of students scoring proficient in ELA grade 3-8 tests increased by 2.9 percentage points. Twenty-three of 24 LEAs improved from SY 2021-2022 to SY 2022-SY2023.



Note: SY 2022-2023 data as of August 14, 2023.

English 10 Assessment by Student Group

In Maryland, nearly all student groups experienced increases to their performance on the English 10 test in SY 2022-2023 as compared to SY 2021-2022.



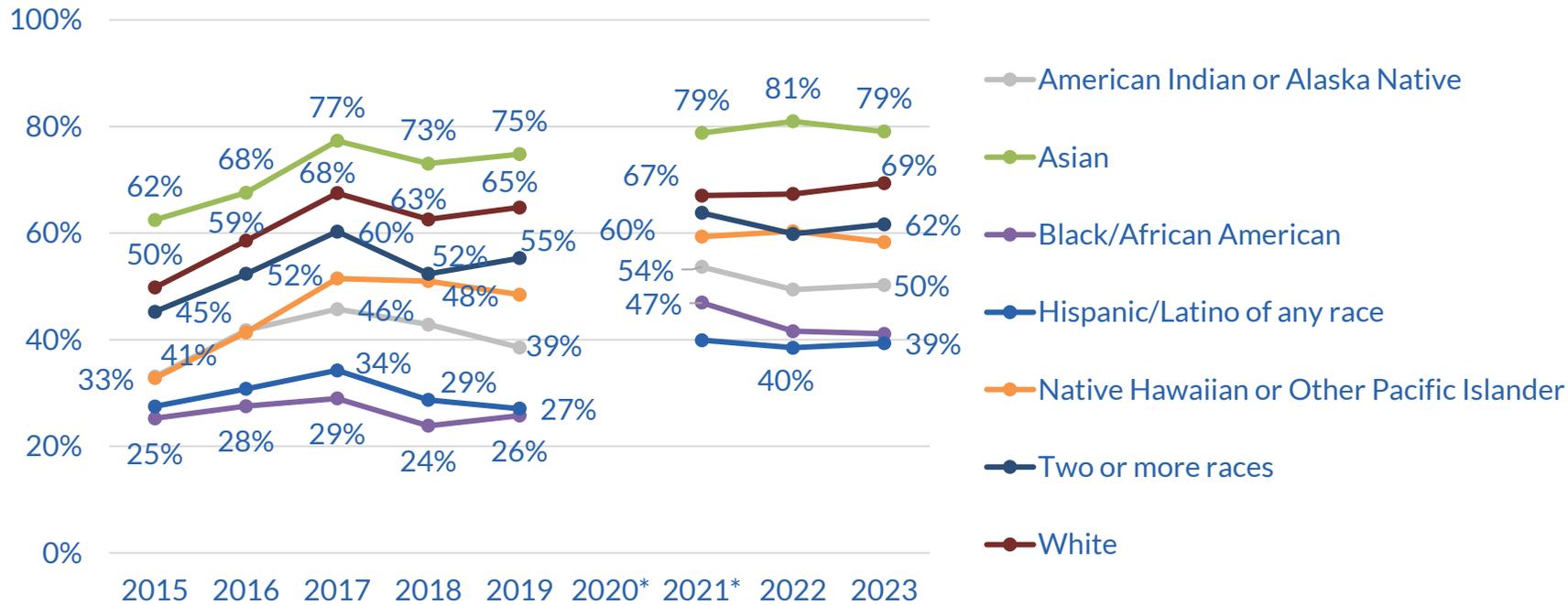
Student Groups	2022 Tested Count	2023 Tested Count
All Students	68,826	73,422
American Indian/Alaska Native	174	189
Asian	4,667	4,929
Black/African American	23,220	25,238
Hispanic/Latino	13,828	15,586
Native Hawaiian/Pacific Islander	111	120
White	23,740	24,096
Two or more races	3,040	3,237
Students with Disabilities	7,010	7,560
English Learners	5,292	6,364
Economically Disadvantaged	15,947	26,115
Female	33,724	35,679
Male	35,018	37,627

Note: SY 2022-2023 data as of August 14, 2023.

English 10 Assessment Trend by Race/Ethnicity

All race/ethnicity student groups improved in English 10 assessment performance when comparing SY 2022-2023 to pre-pandemic performances.

Proficiency Trend by Race/Ethnicity



*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
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 SY 2022-2023 data as of August 14, 2023.

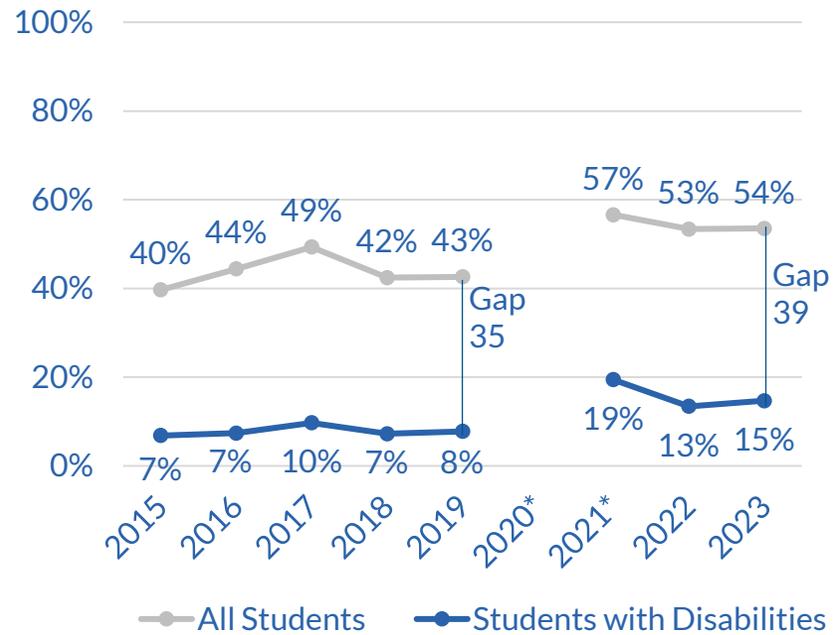
Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	+12	+1
Asian	+4	-2
Black/African American	+15	0
Hispanic/Latino	+12	+1
Na HI or Other Pac. Islander	+10	-2
2+ Races	+6	+2
White	+5	+2

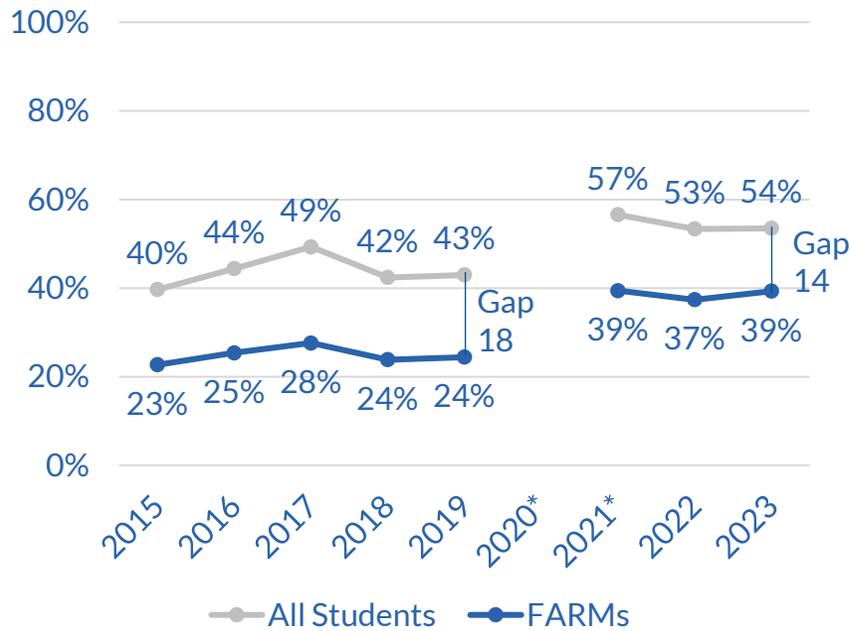
English 10 Assessment Trend by Student Group

Students with disabilities, students eligible for FARMs, and English learners improved in English 10 assessment performance when comparing SY 2022-2023 to pre-pandemic performances. However, persistent gaps remain as compared to all students.

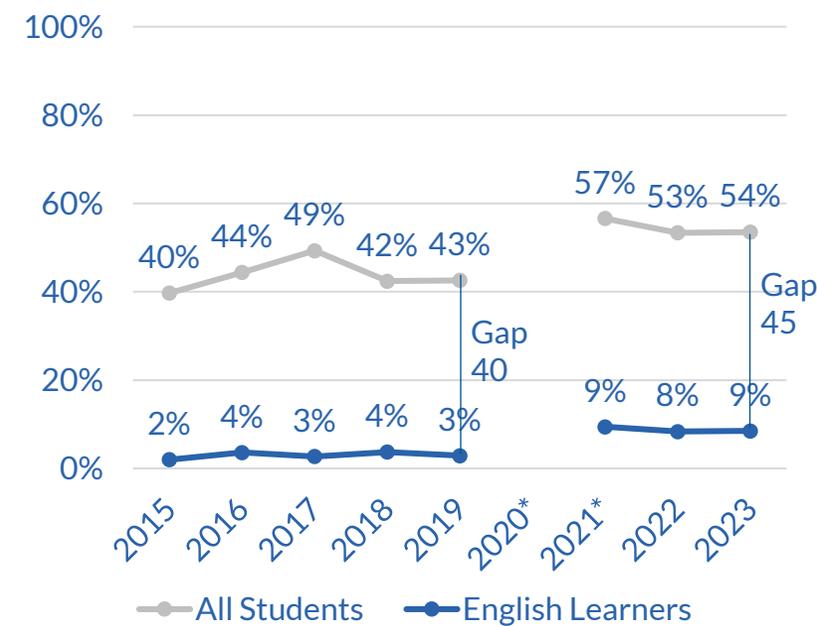
Students with Disabilities Proficiency Trend



FARMs Proficiency Trend



English Learner Proficiency Trend

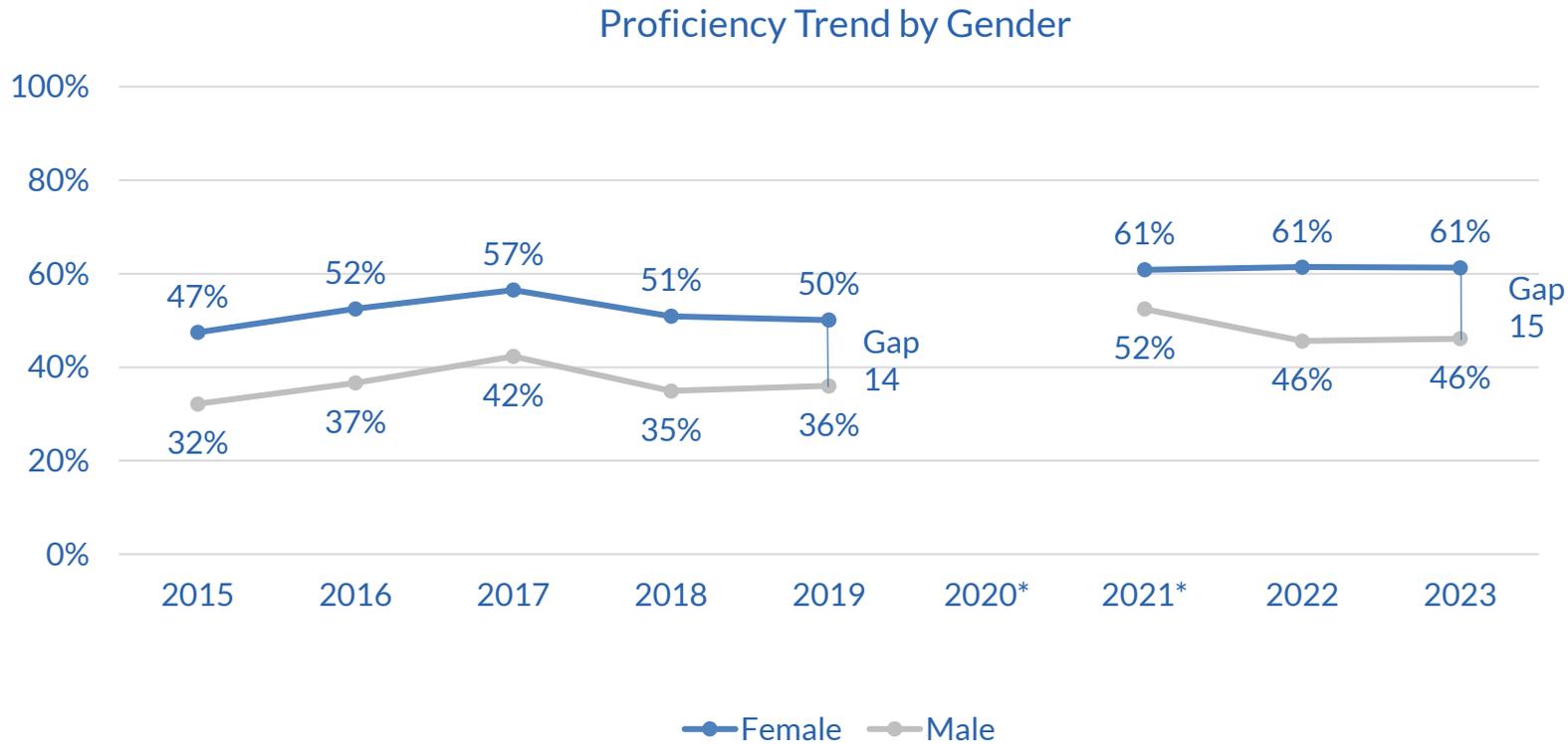


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SY 2022-2023 data as of August 14, 2023.

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English 10 Assessment Trend by Gender

The female student group continues to outperform the male student group in the English 10 assessment with a persistent gap over time.



*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.

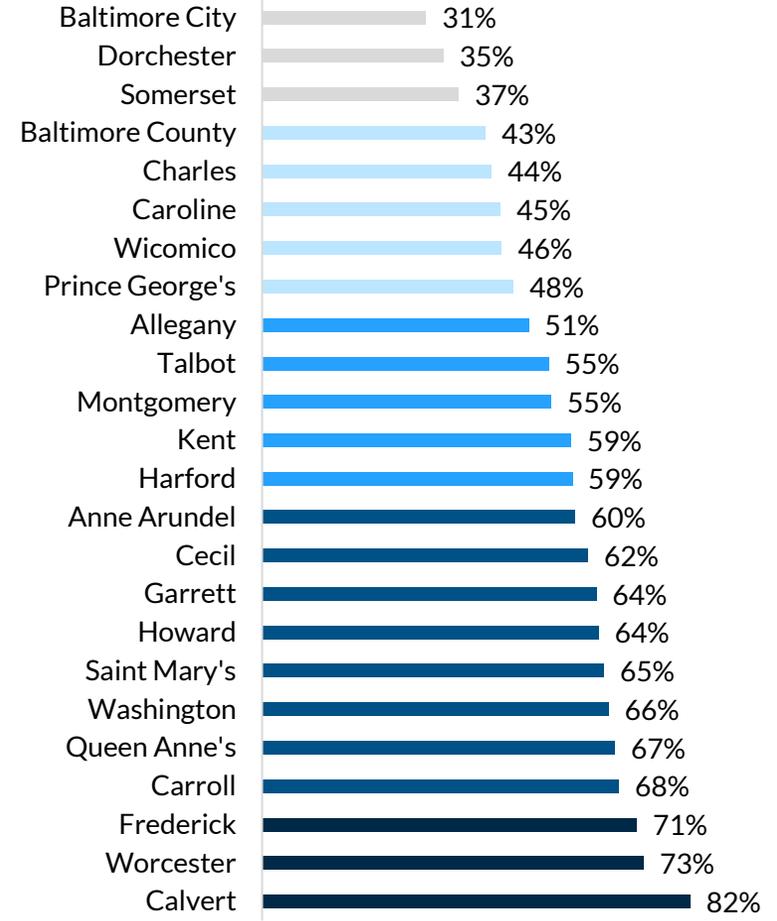
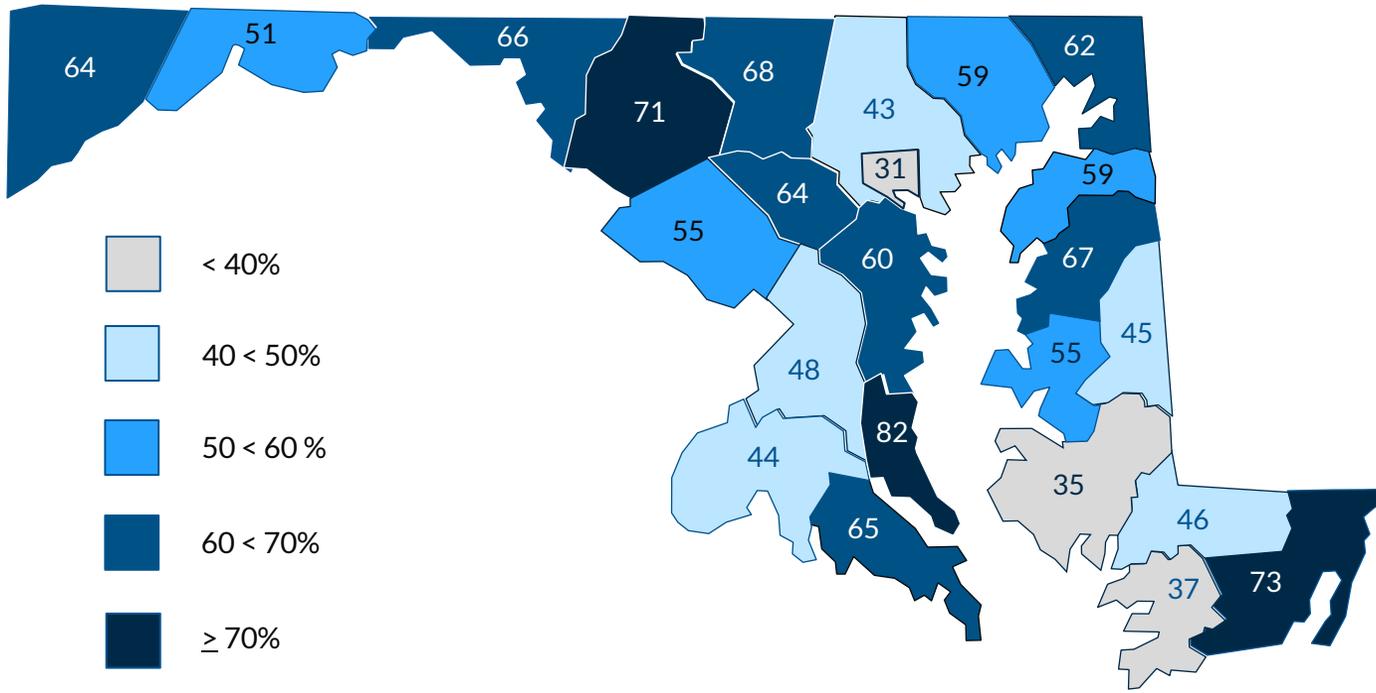
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SY 2022-2023 data as of August 14, 2023.

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English 10 Assessment by LEA, SY 2022-2023

Statewide, the percentage of students scoring proficient on the English 10 test was 54% for SY 2022-2023. LEAs vary from a low of 31% to a high of 82% in proficiency percentage. Eighteen LEAs improved from SY 2021-2022 when comparing to SY 2022-2023 results.

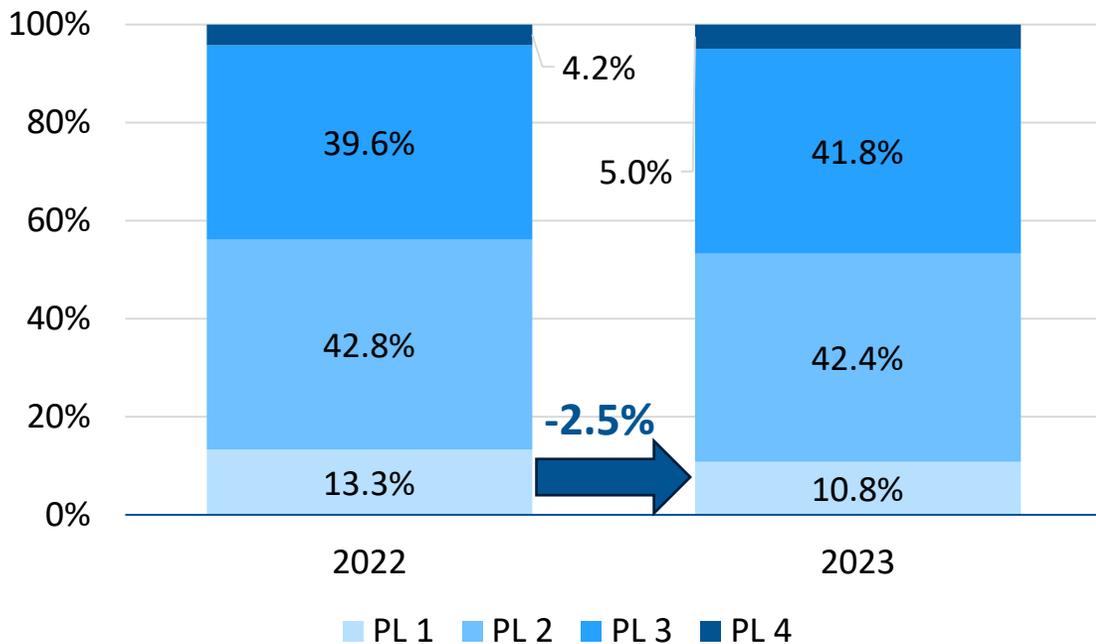


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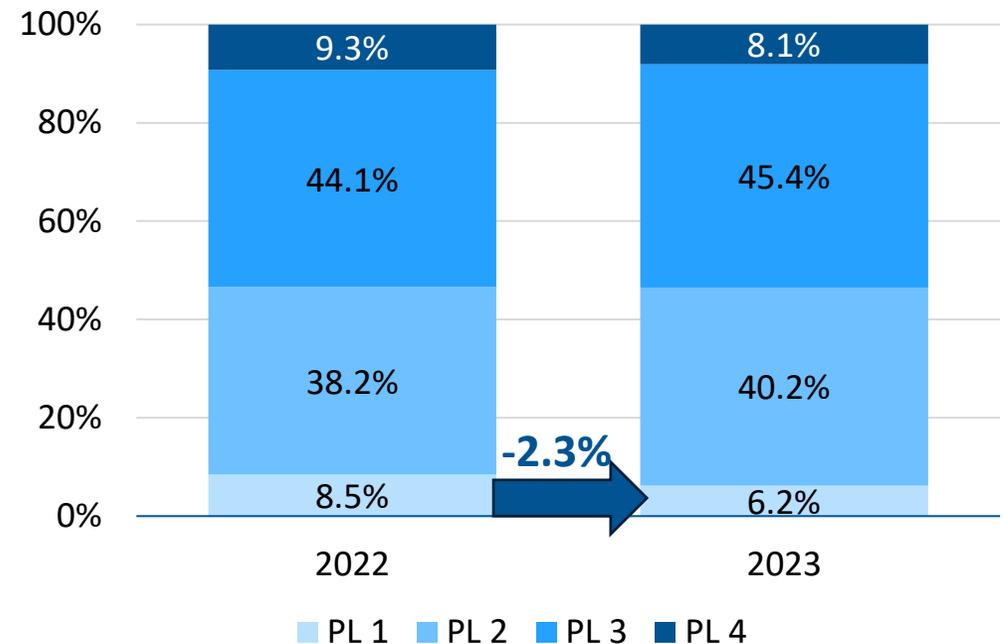
English Language Arts Assessments by Performance Level

The percentage of students scoring at the lowest performance level in ELA decreased by more than 2 points from SY 2021-2022 to SY 2022-2023 in both grades 3-8 and English 10.

Performance Level Distribution: ELA 3-8



Performance Level Distribution: English 10



SY 2022-2023 data as of August 14, 2023.

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1. English Language Arts Results
 2. **Mathematics Results**
 3. On the Cusp of Proficiency
 4. Cohort Analysis
 5. Science Results Grade 5, 8
 6. MCAP Timeline, Reporting and Enhancements

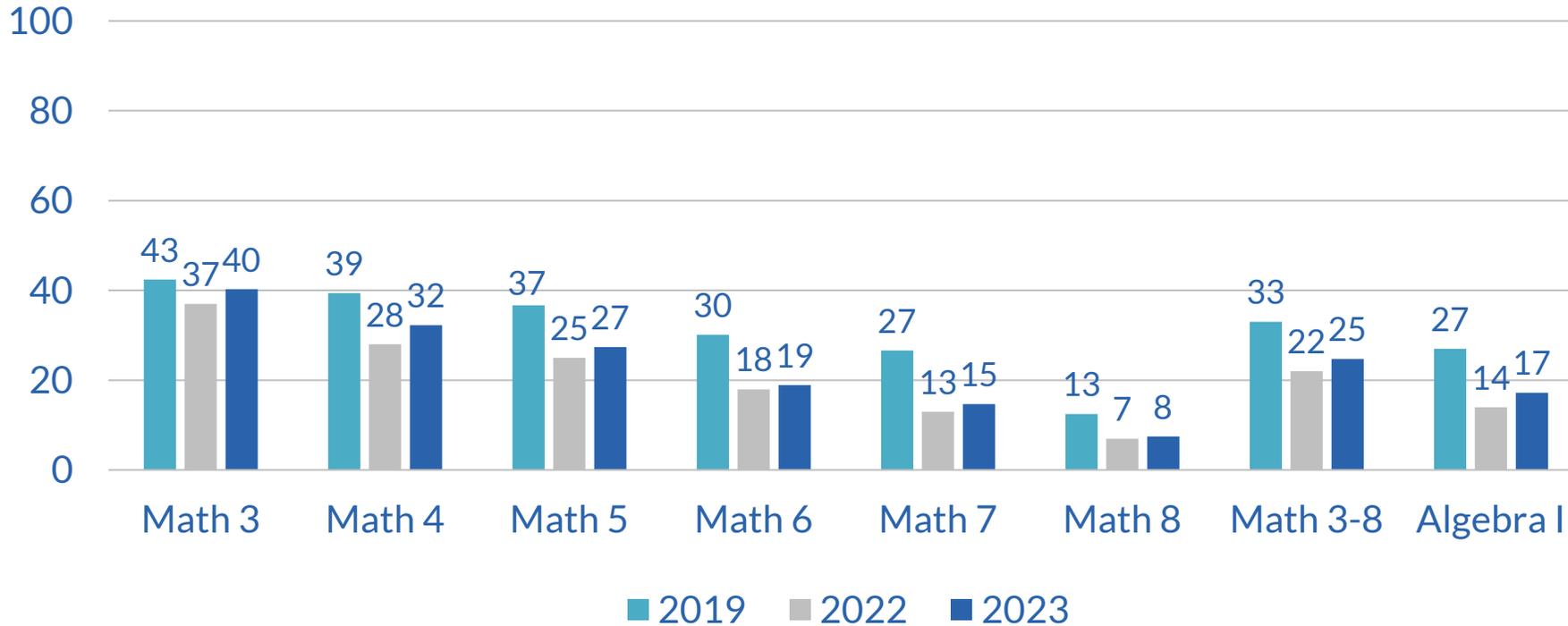
Mathematics Results

The Maryland Comprehensive Assessment Program release of 2023 mathematics data.

Mathematics Assessment Trends

In Maryland, mathematics assessment results improved in all grades and content as compared to SY 2021-2022. Students have not returned to pre-pandemic performance outcomes when comparing to SY 2018-2019.

Percent of Students Proficient by Test



Test	Tested Count 2019	Tested Count 2022	Tested Count 2023
Math 3	66,364	63,248	64,270
Math 4	68,307	63,733	64,513
Math 5	69,786	64,983	64,654
Math 6	67,762	63,179	63,640
Math 7	58,120	56,281	56,098
Math 8	36,356	41,266	41,737
Math 3-8	366,695	352,690	354,912
Algebra I	98,988	76,613	74,402

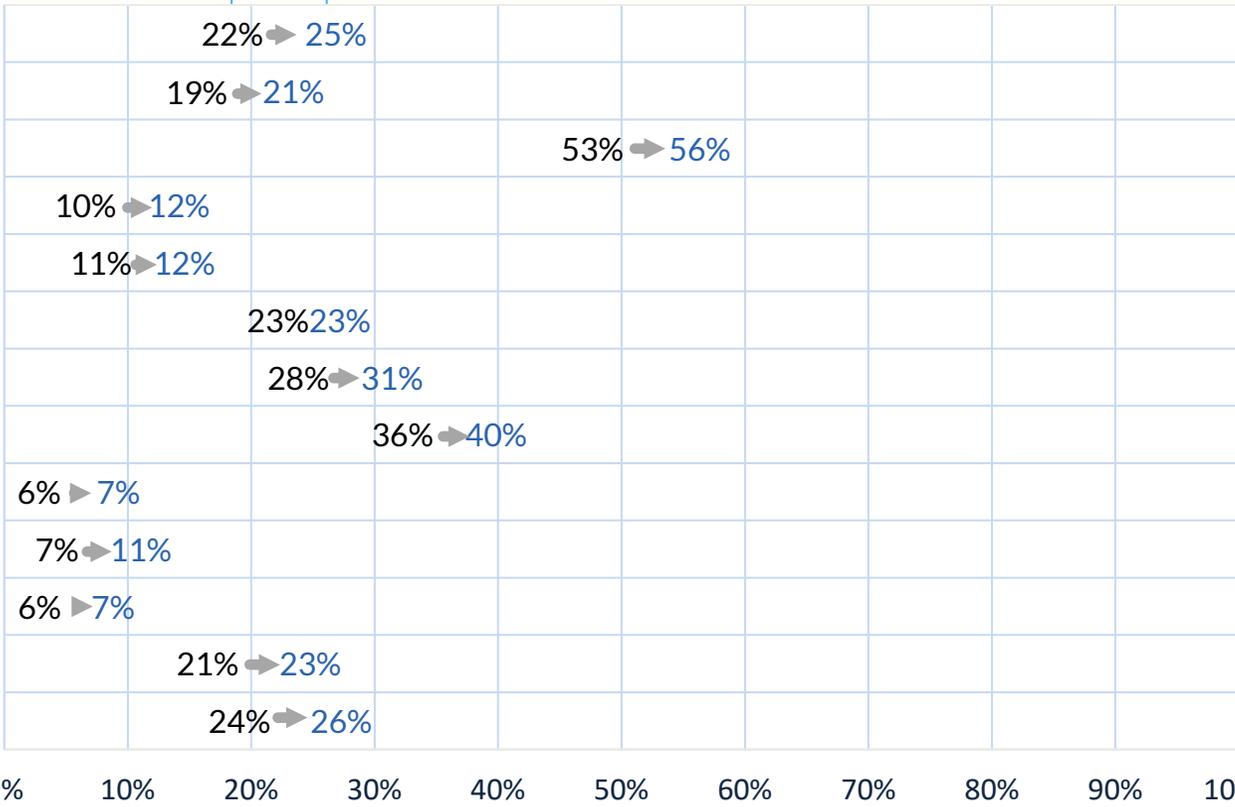
Note: SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021 and are excluded from the trend. SY 2022-2023 data as of August 14, 2023.

Mathematics Grade 3-8 Assessments by Student Group

Statewide, most student groups experienced an increase in proficiency rates in math grade 3-8 tests in SY 2022-2023 as compared to SY 2021-2022 results.

% of 2022 student scoring proficient

% of 2023 student scoring proficient



- All Students
- American Indian or Alaska Native
- Asian
- Black/African American
- Hispanic/Latino of any race
- Native Hawaiian or Other Pacific Islander
- Two or more races
- White
- English Learner
- Economically Disadvantaged
- Students with Disabilities
- Female
- Male

Student Groups	2022 Tested Count	2023 Tested Count
All Students	352,690	354,912
American Indian/Alaska Native	917	873
Asian	20,863	21,380
Black/African American	119,097	119,134
Hispanic/Latino	78,215	81,392
Native Hawaiian/Pacific Islander	496	481
White	114,597	112,889
Two or more races	18,201	18,617
Students with Disabilities	42,813	44,144
English Learners	47,032	48,584
Economically Disadvantaged	101,710	143,754
Female	172,343	173,282
Male	180,078	181,479

Note: SY 2022-2023 data as of August 14, 2023.

Mathematics Grade 3-8 Assessment Trend by Race/Ethnicity

Nearly all race/ethnicities improved in SY 2022-2023 as compared to SY 2021-2022. However, no race/ethnicity student group has returned to their pre-pandemic level of performance on math grade 3-8 tests.

Proficiency Trend by Race/Ethnicity



Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	-7	+2
Asian	-11	+3
Black/African American	-4	+2
Hispanic/Latino	-8	+2
Na HI or Other Pac. Islander	-13	-1
2+ Races	-8	+3
White	-10	+4

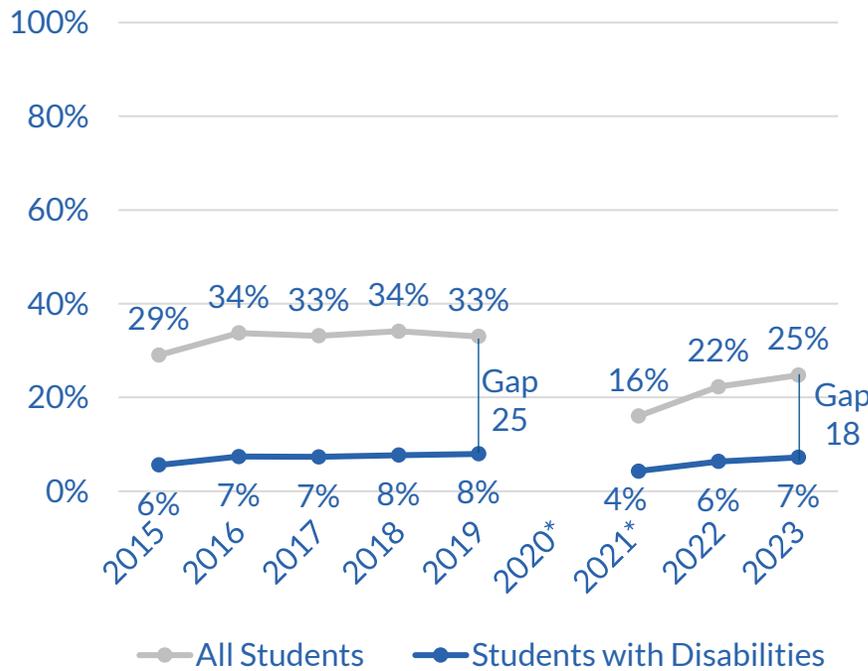
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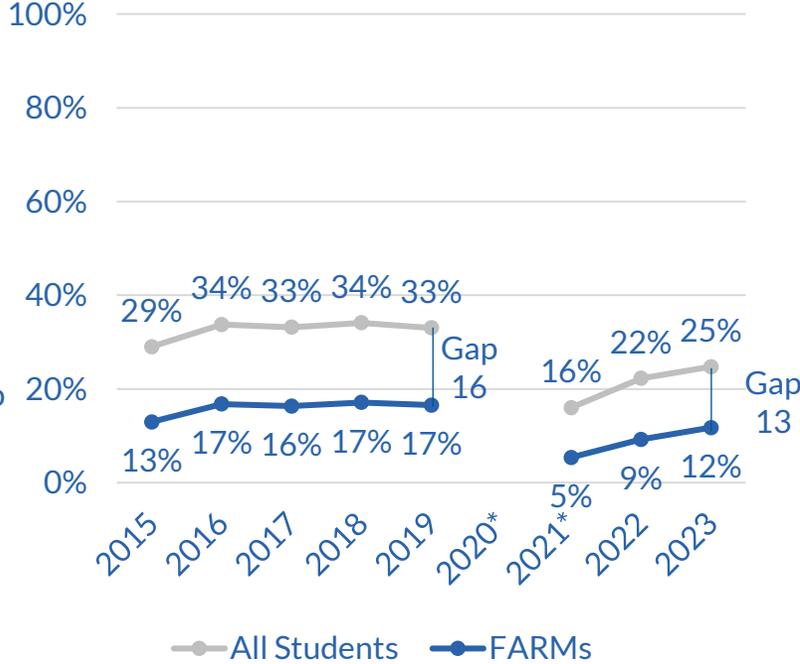
Mathematics Grade 3-8 Assessment Trend by Student Group

Students with disabilities, students eligible for FARMs, and English learners improved their performance in math assessments when comparing SY 2022-2023 to prior year performance. However, persistent gaps remain as compared to all students.

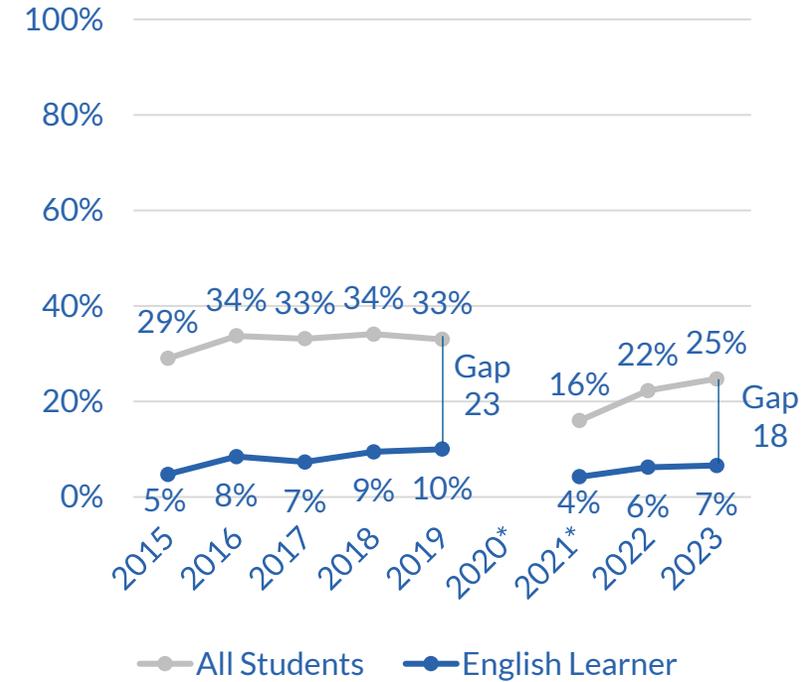
Students with Disabilities Proficiency Trend



FARMs Proficiency Trend



English Learner Proficiency Trend



*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
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 SY 2022-2023 data as of August 14, 2023.

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Mathematics Grade 3-8 Assessment Trend by Gender

Both male and female student groups improved in math proficiency percentage in SY 2022-2023 as compared to prior year.

Proficiency Trend by Gender

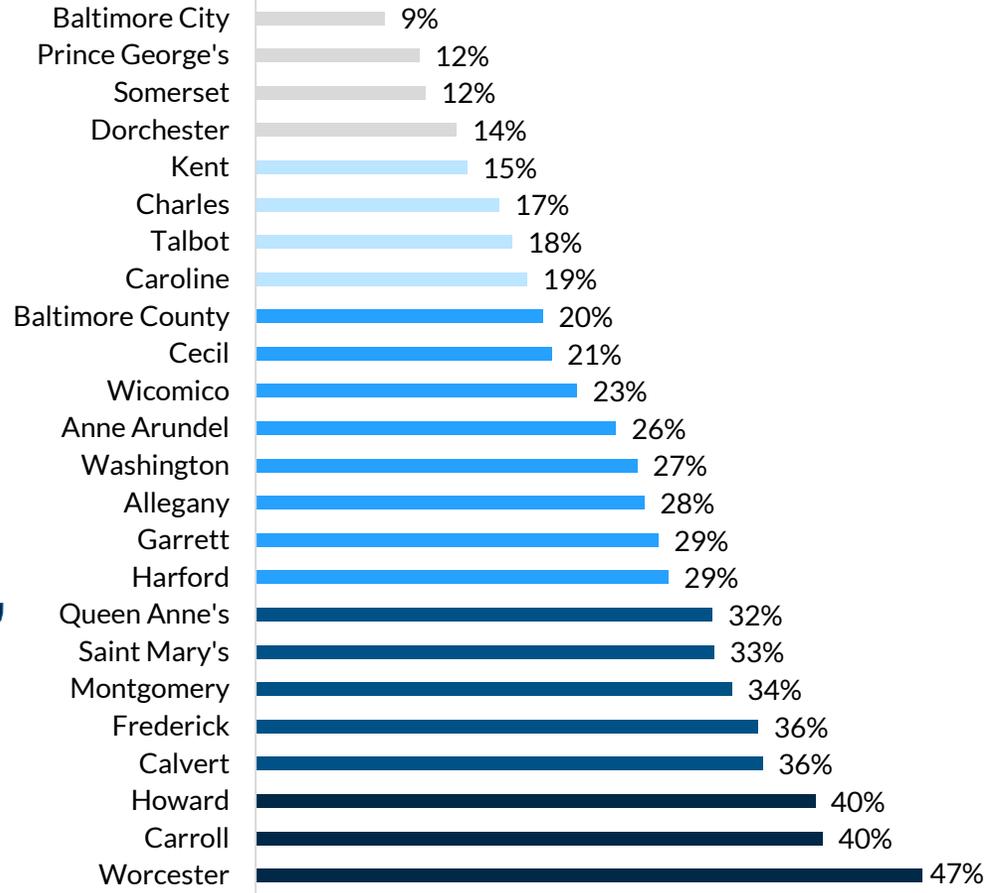
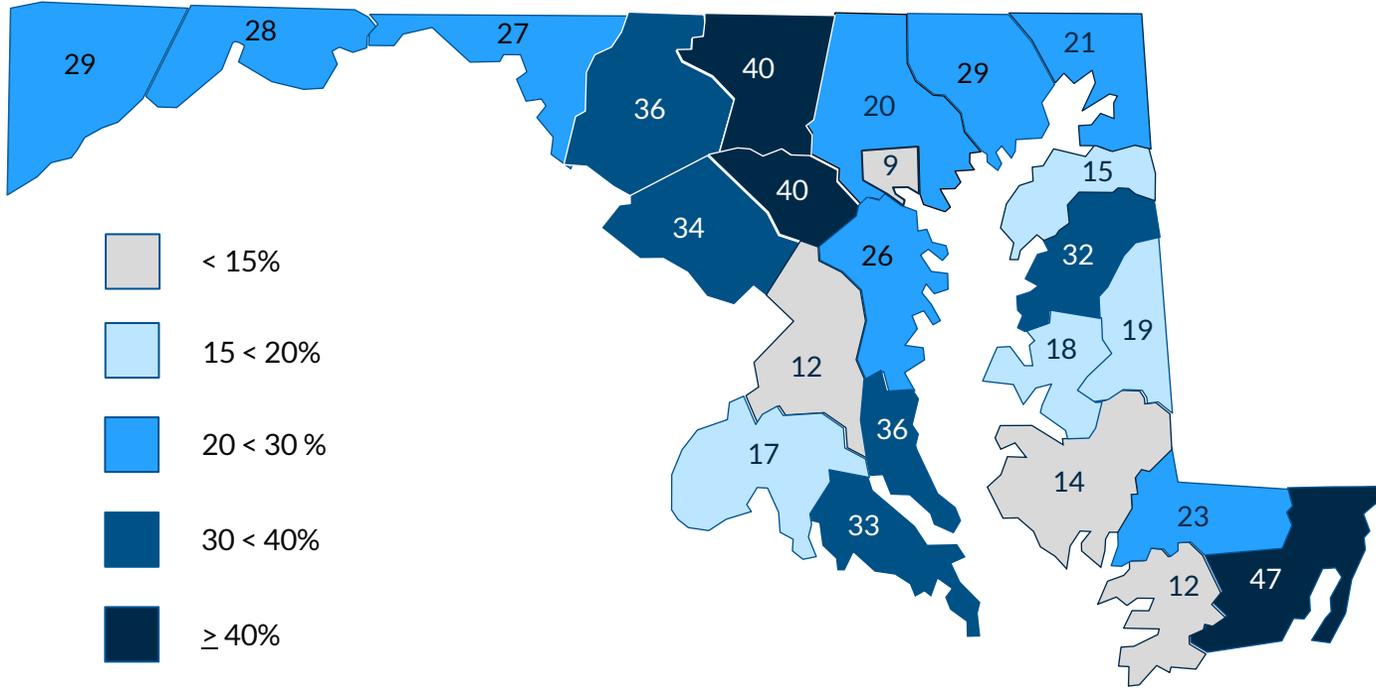


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Mathematics Grade 3-8 Assessments by LEA, SY 2022-2023

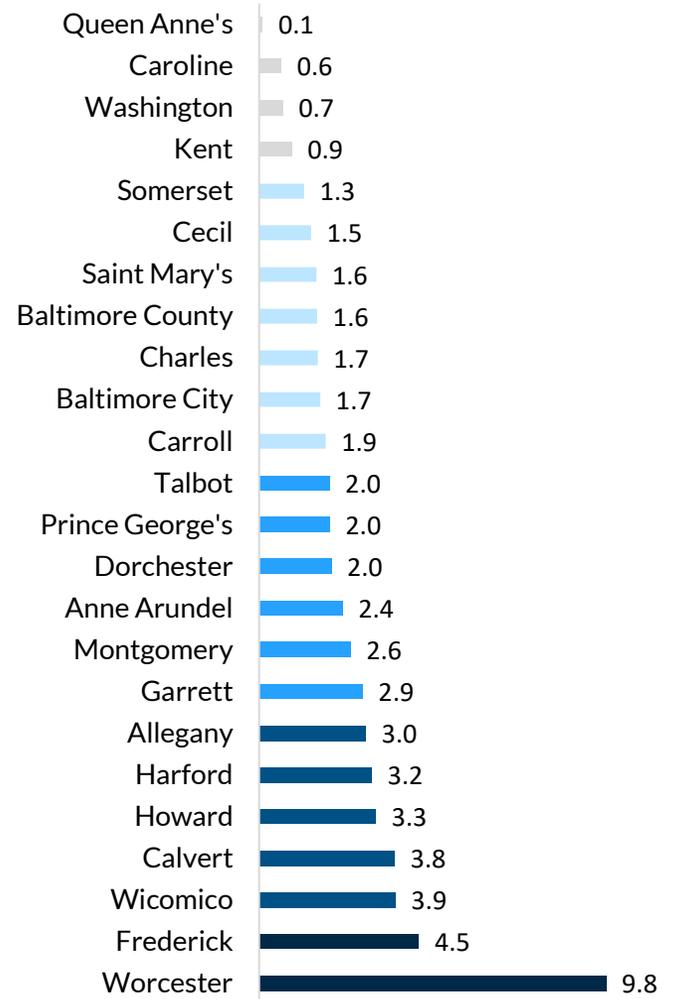
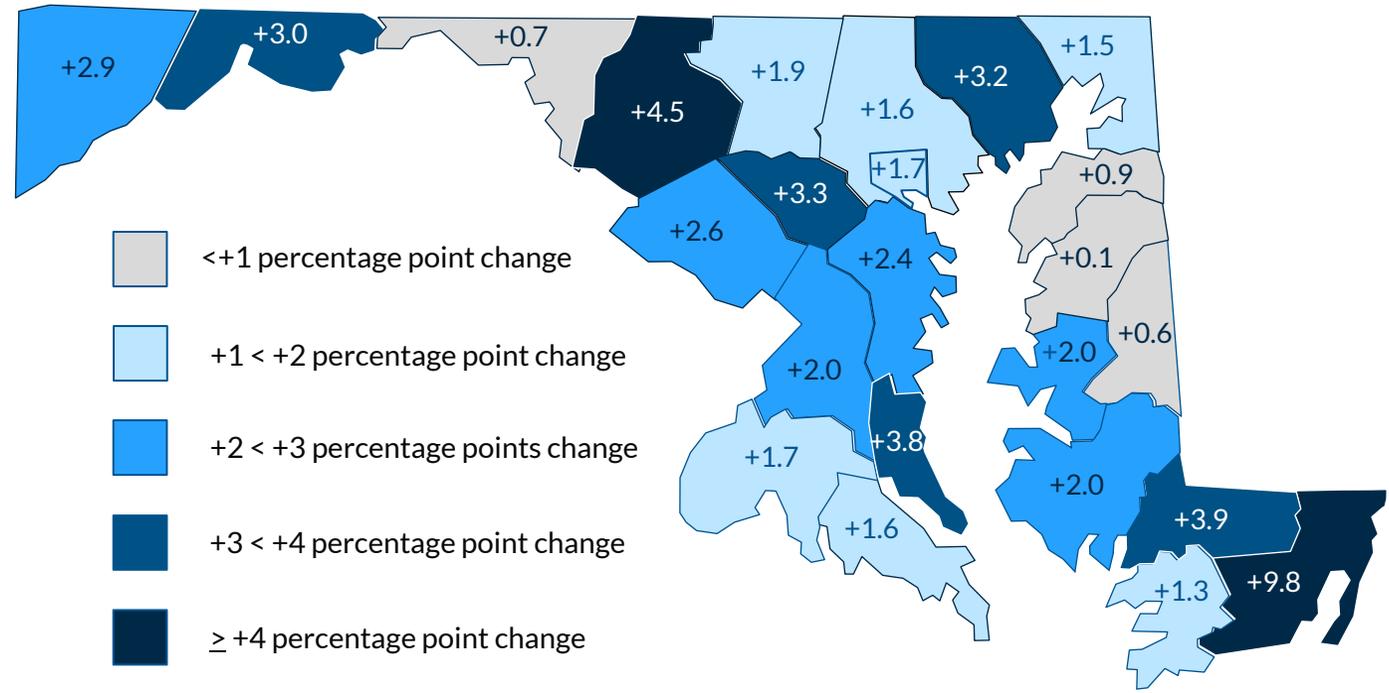
Statewide, the percentage of students scoring proficient on math grade 3-8 tests was 25% for SY 2022-2023. LEAs vary from a low of 9% to a high of 47% in proficiency percentage. Every LEA improved when comparing SY 2021-2022 to SY 2022-2023 results.



Note: SY 2022-2023 data as of August 14, 2023.

Mathematics Grade 3-8 Assessments by LEA, SY 2022-2023 Compared to SY 2021-2022

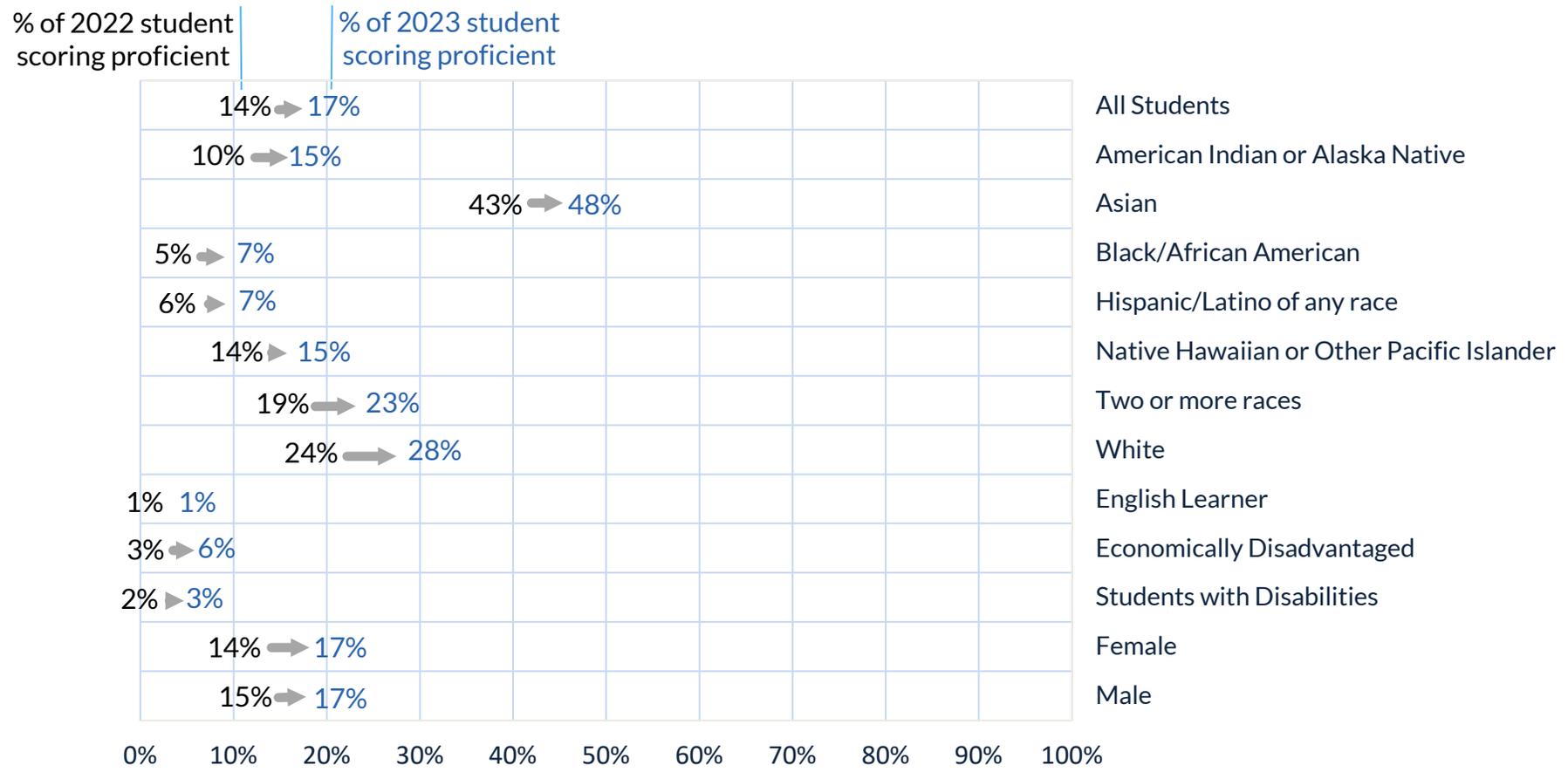
Statewide, the percentage of students scoring proficient in mathematics grade 3-8 tests increased by 2.5 percentage points. Every LEA improved from SY 2021-2022 to SY 2022-SY2023.



Note: SY 2022-2023 data as of August 14, 2023.

Algebra I Assessment by Student Group

In Maryland, nearly all student groups experienced an increase in proficiency rates in Algebra I in SY 2022-2023 as compared to SY 2021-2022 results.



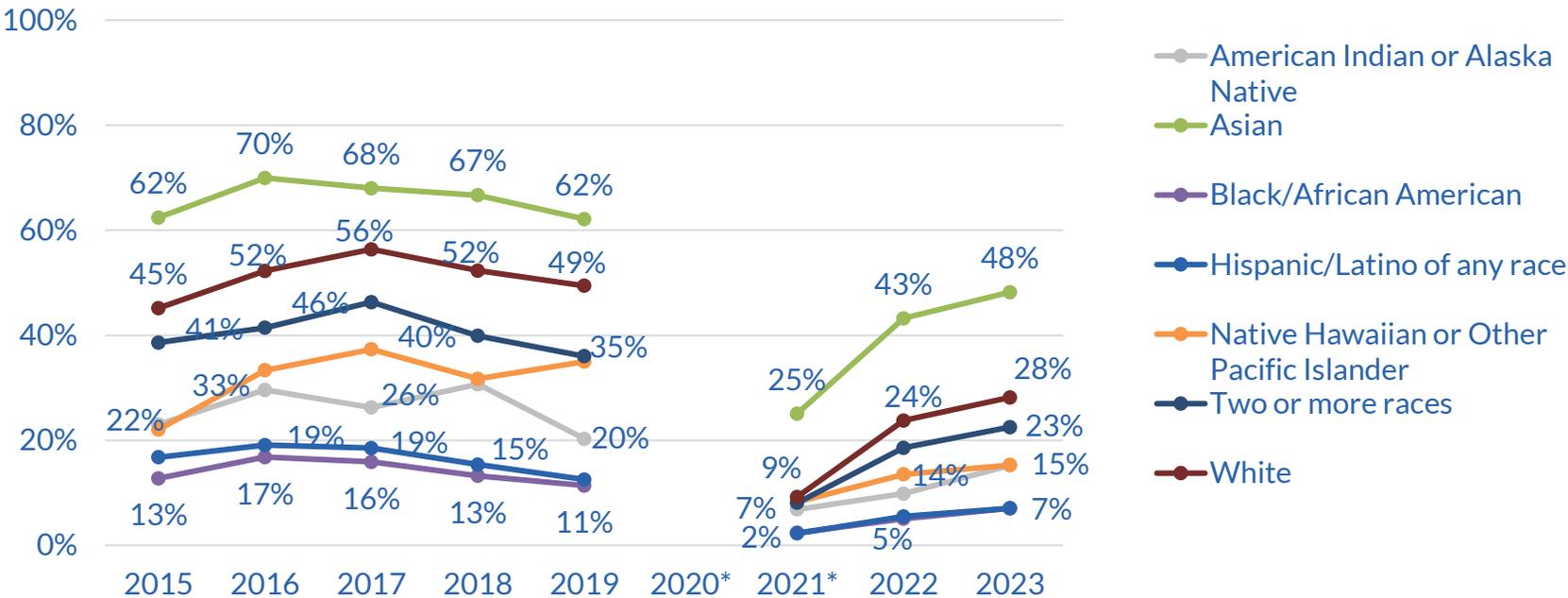
Student Groups	2022 Tested Count	2023 Tested Count
All Students	76,613	74,402
American Indian/Alaska Native	213	210
Asian	4,860	4,848
Black/African American	26,162	25,588
Hispanic/Latino	16,471	16,535
Native Hawaiian/Pacific Islander	133	111
White	25,144	23,552
Two or more races	3,569	3,529
English Learners	7,401	7,952
Economically Disadvantaged	19,380	27,557
Female	36,810	35,660
Male	39,701	38,649

Note: SY 2022-2023 data as of August 14, 2023.

Algebra I Assessment Trend by Race/Ethnicity

While each race/ethnicity student group improved when comparing SY 2022-2023 results to SY 2021-2022, no race/ethnicity student group has returned to pre-pandemic performance on Algebra I tests.

Proficiency Trend by Race/Ethnicity



Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	-5	+5
Asian	-14	+5
Black/African American	-4	+2
Hispanic/Latino	-5	+2
Na HI or Other Pac. Islander	-20	+2
2+ Races	-14	+4
White	-21	+4

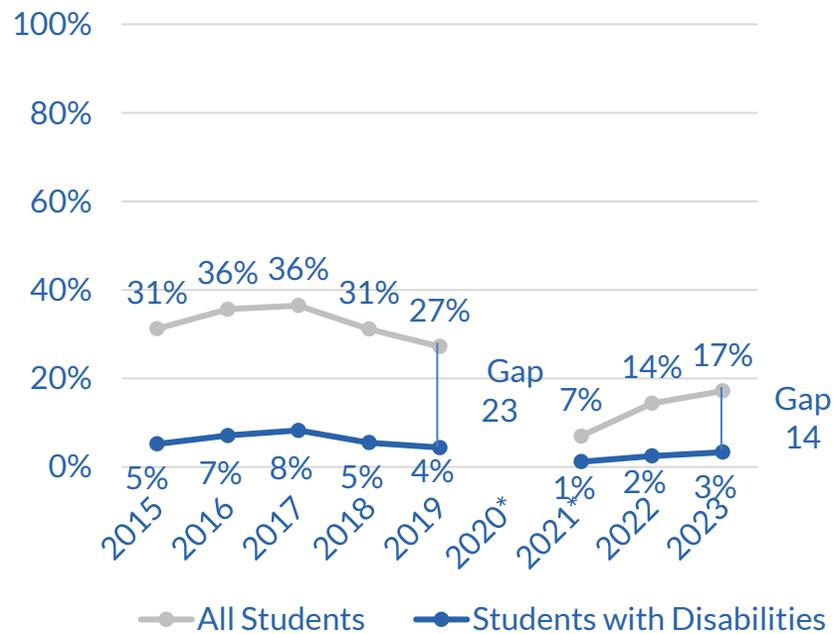
*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic. SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021. SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

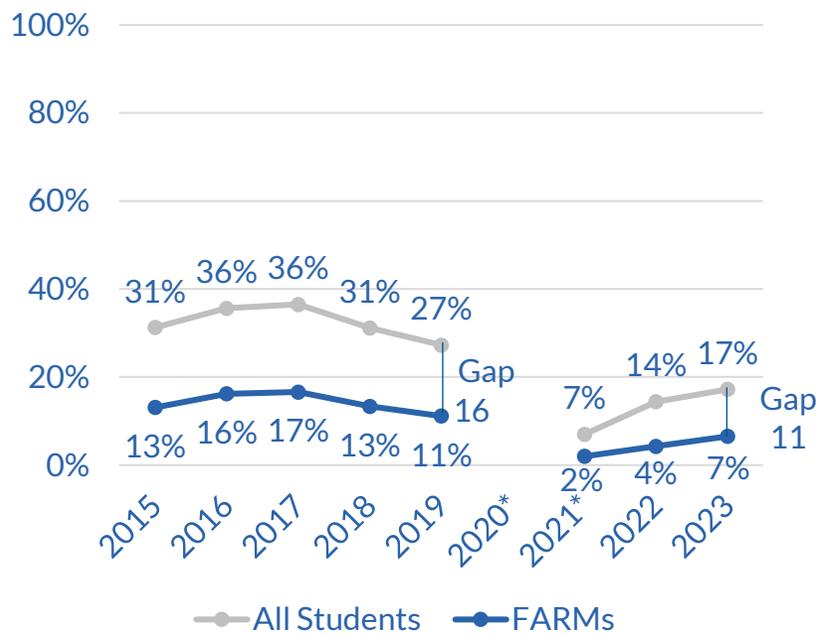
Algebra I Assessment Trend by Student Group

Students with disabilities, students eligible for FARMs, and English learners improved their performance in the Algebra I assessment when comparing SY 2022-2023 to SY 2021-2022 results. However, persistent gaps remain as compared to all students.

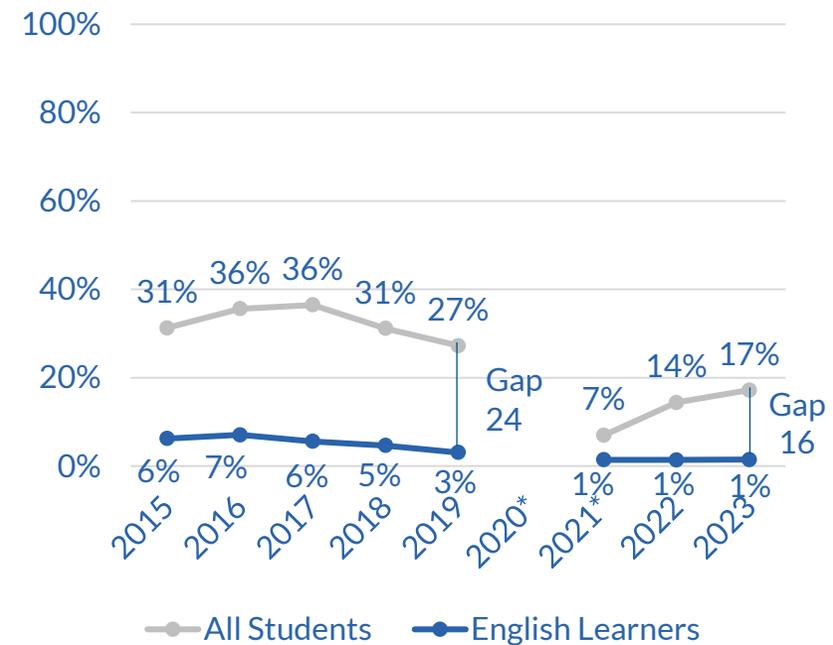
Students with Disabilities Proficiency Trend



FARMs Proficiency Trend



English Learner Proficiency Trend

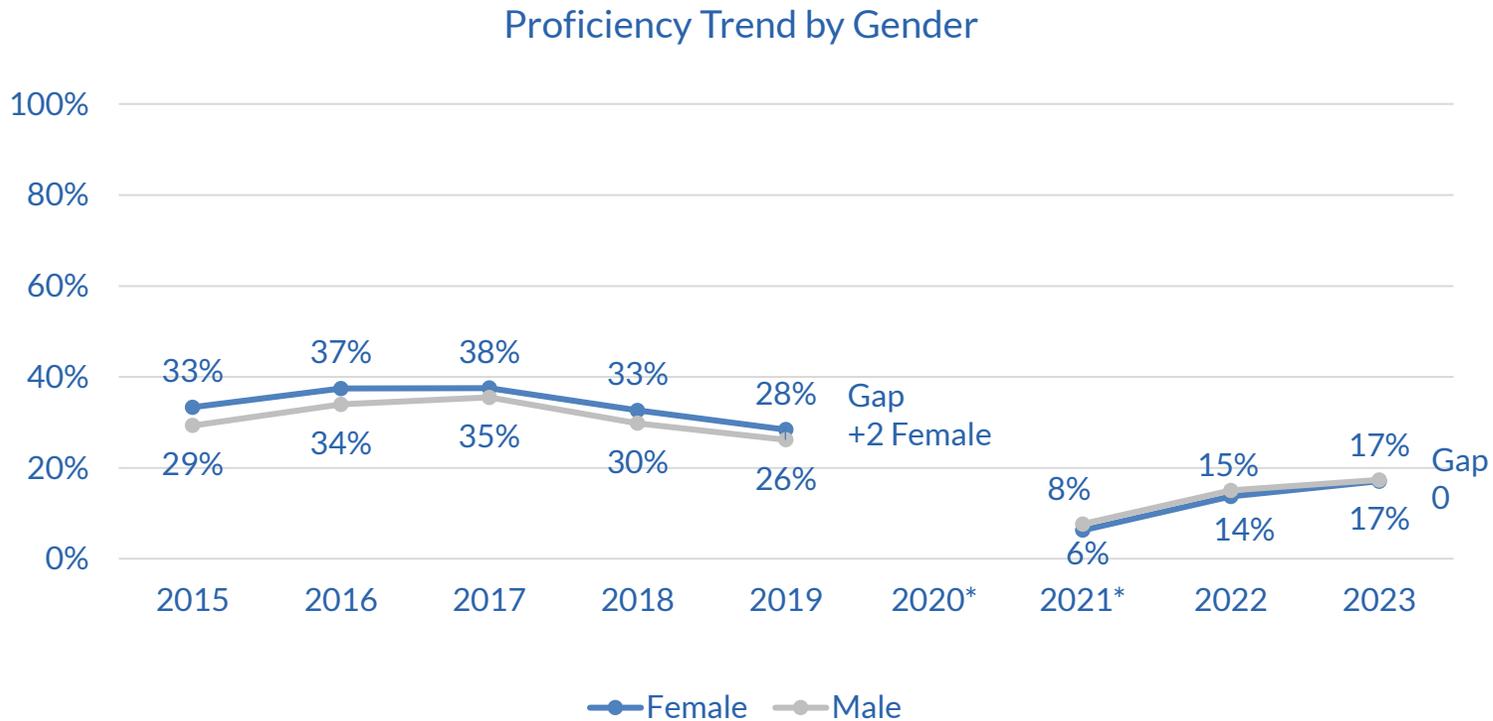


*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Algebra I Assessment Trend by Gender

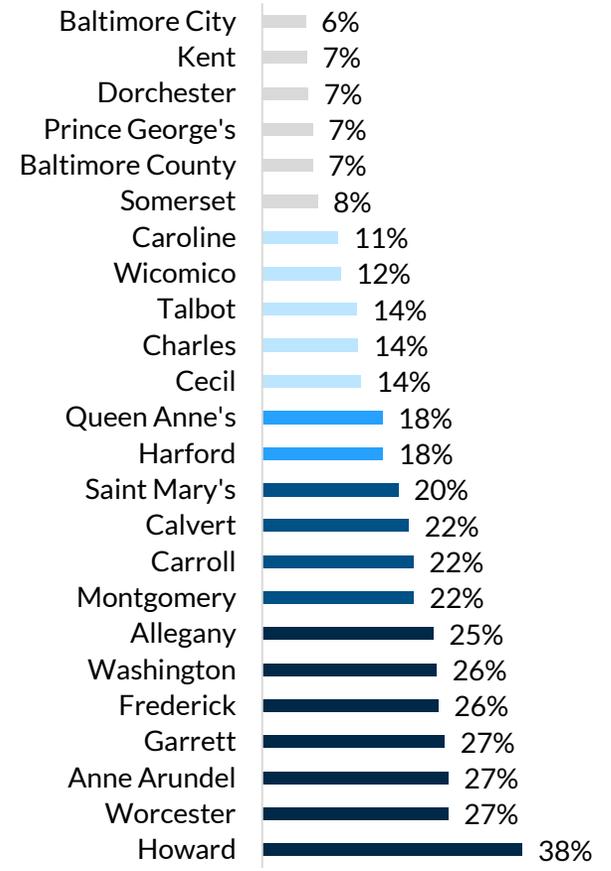
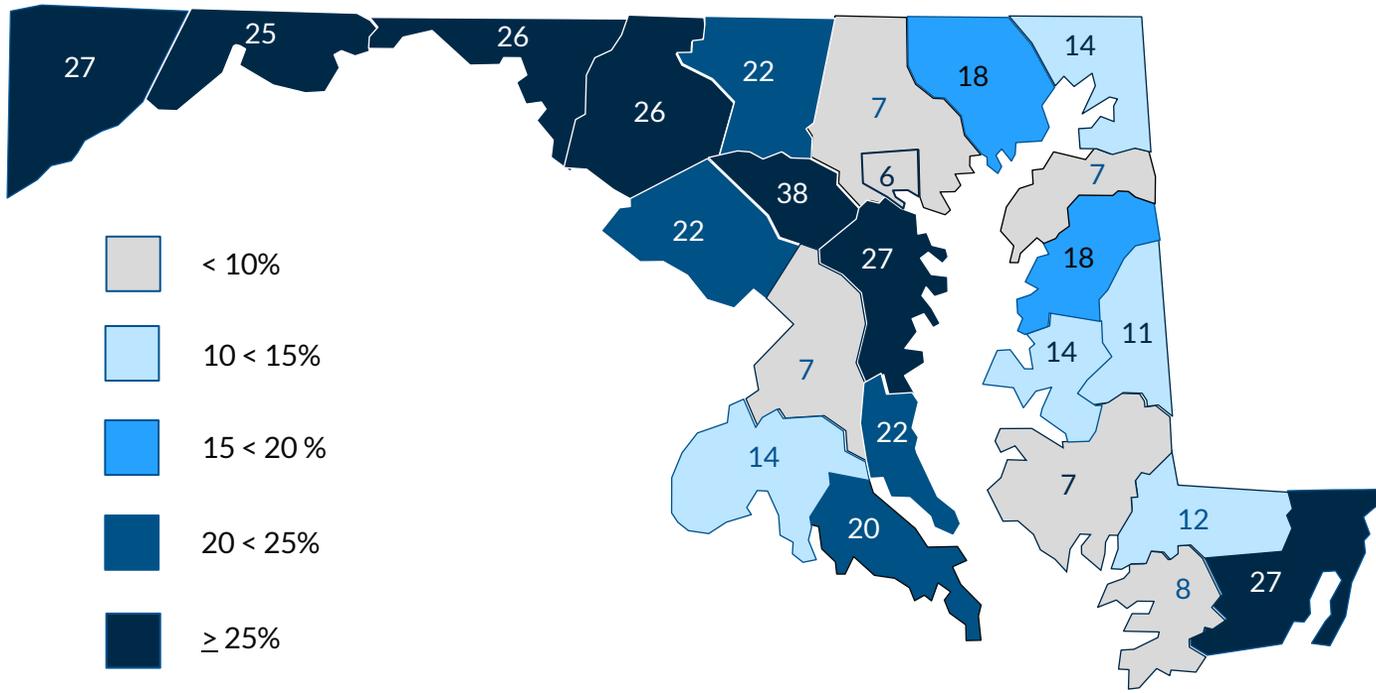
Both the male and female student groups improved in Algebra I proficiency percentage in SY 2022-2023 as compared to prior year.



*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
 SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
 SY 2022-2023 data as of August 14, 2023.
 Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Algebra I Assessment by LEA, SY 2022-2023

Statewide, the percentage of students scoring proficient on the Algebra I test was 17% for SY 2022-2023. LEAs vary from a low of 6% to a high of 38% in proficiency percentage. Twenty-three LEAs improved when comparing SY 2021-2022 to SY 2022-2023 results.

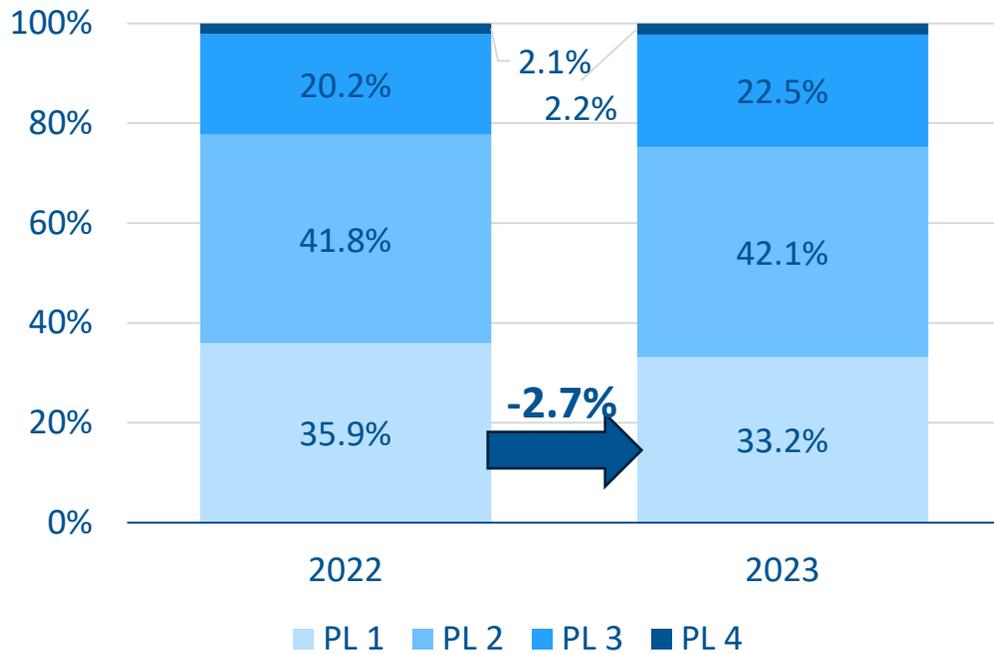


Note: SY 2022-2023 data as of August 14, 2023.

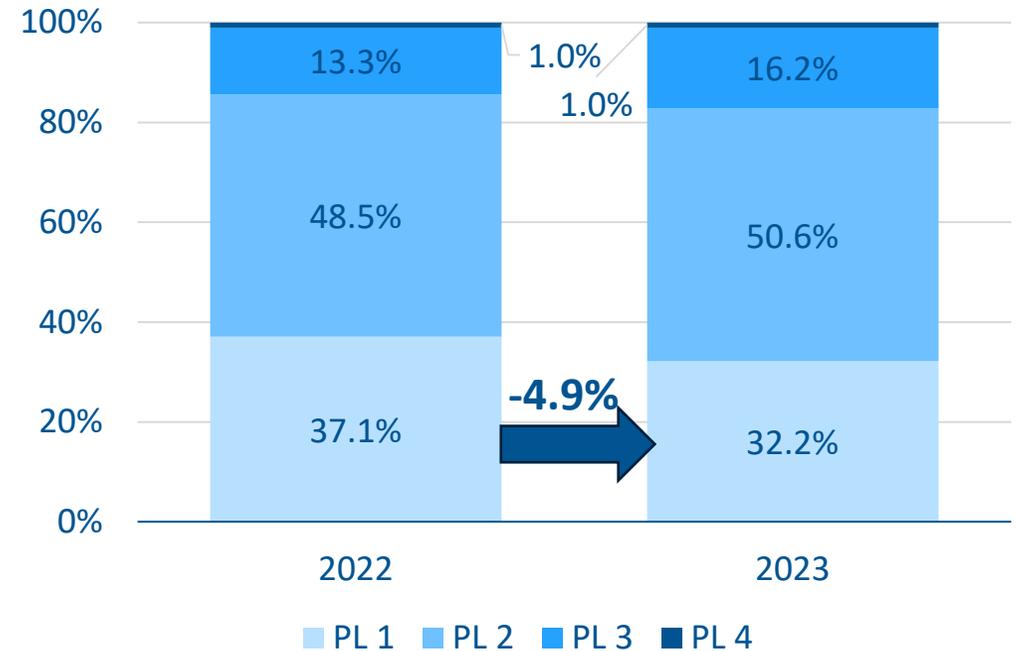
Mathematics Assessments by Performance Level

The percentage of students scoring at the lowest performance level in math decreased from 2022 to 2023 by almost 3 points in grades 3-8 and almost 5 points in Algebra I.

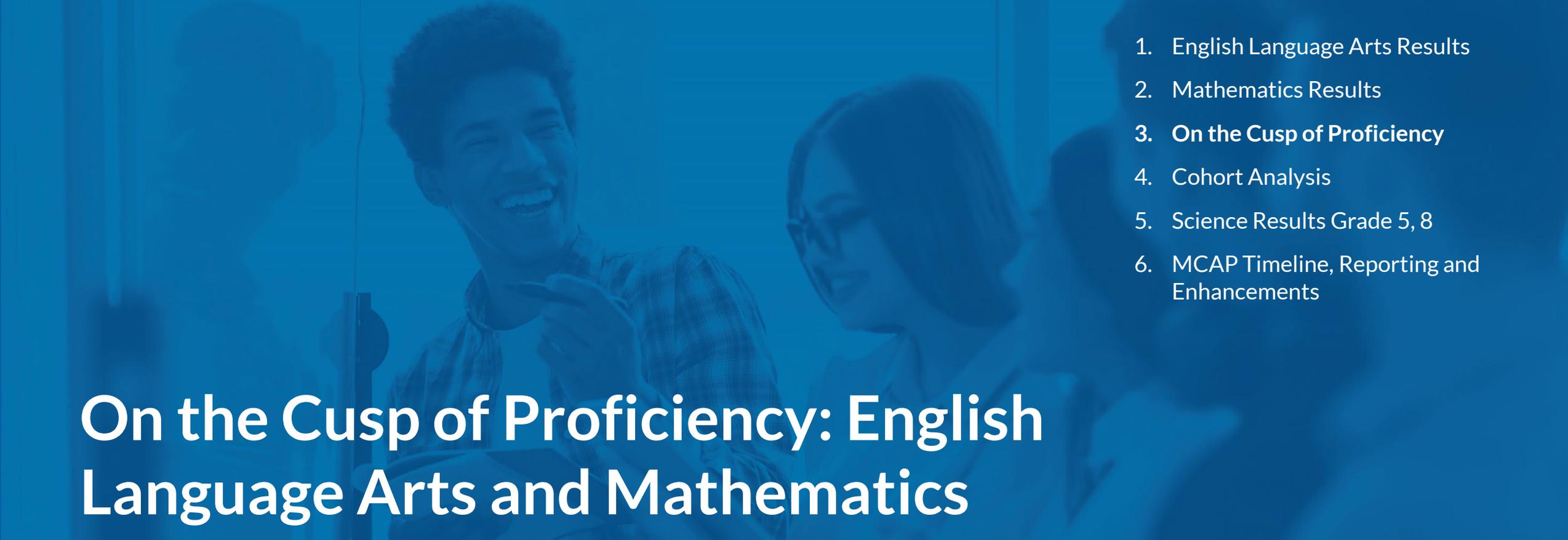
Performance Level Distribution: Math 3-8



Performance Level Distribution: Algebra I



Note: SY 2022-2023 data as of August 14, 2023.

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1. English Language Arts Results
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 3. **On the Cusp of Proficiency**
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 6. MCAP Timeline, Reporting and Enhancements

On the Cusp of Proficiency: English Language Arts and Mathematics

An analysis of students scoring just below the proficiency threshold.

On the Cusp of Proficiency (1 of 6)

A substantial percentage of students scored just below the proficiency score cutoff. For grade 5 students in math, 51% of students scored in performance level 2, which is just below performance level 3, which is considered proficient. For grade 8 English language arts (ELA), 40% of students scored in performance level 2.

Math Grade 5

	Student Count	Percent
Performance Level 1	14,079	21.8%
Performance Level 2	32,849	50.8%
Performance Level 3/4	17,726	27.4%

ELA Grade 8

	Student Count	Percent
Performance Level 1	8,704	13.3%
Performance Level 2	26,010	39.8%
Performance Level 3/4	30,583	46.8%

Note: SY 2022-2023 data as of August 14, 2023.

On the Cusp of Proficiency: Scoring (2 of 6)

Example of Scoring

- On the Spring 2023 mathematics grade 5 test, Student A scored in performance level 2, with a scale score of 746.
- Question 2, which has a maximum point value of 1, was answered incorrectly.
- Question 2 is a test item aligned to Number and Operations – Fractions (Evidence statement: 5.NF.B.7c).
- If Student A had answered Question 2 correctly, the student would have scored a 753 which is performance level 3 and Proficient.

Math Grade 5

Test Item	Actual Response Pattern	With One More Question Correct
1	Correct	Correct
2	Incorrect	Correct
3	Correct	Correct
4	Incorrect	Incorrect
... 35 test items	21 of 45 points earned	22 of 45 points earned
Scale Score	746 Performance Level 2 - Developing Learner	753 Performance Level 3- Proficient Learner

On the Cusp of Proficiency: Scoring (3 of 6)

Example of Scoring

- On the Spring 2023 English language arts grade 8 test, Student B scored in performance level 2 with a scale score of 745.
- Question 2, which has a maximum point value of 2, was answered incorrectly.
- Question 2 is a test item aligned to Reading – Literary, Key Ideas and Details (Evidence statement: RL.8.3).
- If student B had answered Question 2 partially correct earning 1 additional point, the student would have scored a 756 which is performance level 3 and Proficient.

English Language Arts Grade 8

Test Item	Actual Response Pattern	With One More Question Correct
1	Correct	Correct
2	Incorrect (0)	Partial (1)
3	Correct	Correct
4	Incorrect	Incorrect
... 33 test items	25 of 56 points earned	26 of 56 points earned
Scale Score	745 Performance Level 2- Developing Learner	756 Performance Level 3- Proficient Learner

On the Cusp of Proficiency: SY 2022-2023 (4 of 6)

Between 11 and 17% of students in math and between 16 and 22% of students in ELA were on the cusp of proficiency, or, on average, 1 to 3 correct answers from scoring proficient.

Count and Percent of Students Scoring 10 Points or Less Below the Proficiency Threshold in Math and ELA

Math	Student Count	Percent	ELA	Student Count	Percent
Grade 3	8,478	13.2%	Grade 3	9,991	15.7%
Grade 4	10,423	16.2%	Grade 4	11,247	17.6%
Grade 5	11,272	17.4%	Grade 5	12,094	18.9%
Grade 6	9,521	15.0%	Grade 6	12,052	19.0%
Grade 7	6,702	11.9%	Grade 7	13,955	22.0%
Grade 8	4,539	10.9%	Grade 8	11,925	18.2%
Algebra I	11,780	15.8%	Grade 10	15,282	20.8%

*On the cusp of proficiency is defined as scoring 10 points or less below the proficiency threshold, i.e., achieving a scale score between 740 and 749.

Note: SY 2022-2023 data as of August 14, 2023.

On the Cusp of Proficiency: SY 2021-2022 Compared to SY 2022-2023 (5 of 6)

The percentage of students on the cusp of proficiency only slightly decreased for grade 3 ELA but increased by 1.2 percentage points for Algebra I from 2022 to 2023.*

Count and Percent of Students Scoring 10 Points or Less Below the Proficiency Threshold on Select Tests, 2022 and 2023

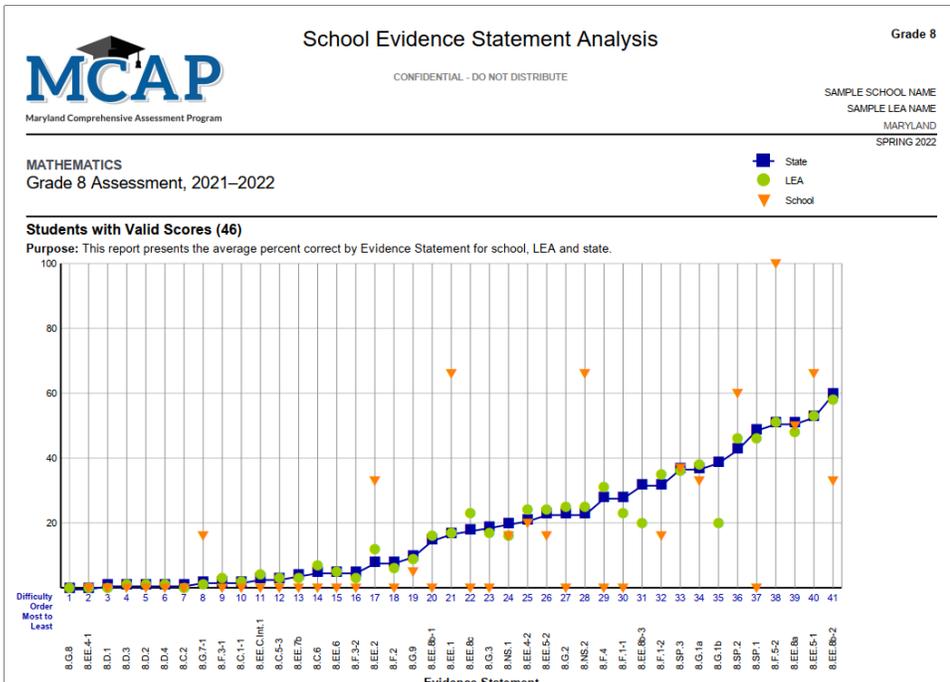
Test	2022	2023
Grade 3 ELA	16.0%	15.7%
Algebra I	14.6%	15.8%

*On the cusp of proficiency is defined as scoring 10 points or less below the proficiency threshold, i.e., achieving a scale score between 740 and 749.

Note: SY 2022-2023 data as of August 14, 2023.

On the Cusp of Proficiency: Reports (6 of 6)

The Maryland Comprehensive Assessment Program prioritizes reporting and with the SY 2022-2023 results educators have reports that target instruction for all students. The Evidence Statement Analysis and Item Analysis Reports can be used to identify students on the cusp and a pathway for accelerating learning.



Performance Level Scale

- Beginning Learner
- Developing Learner
- Proficient Learner
- Distinguished Learner

Exceptions: Off-grade

% Values: Percent Correct

Student Name	Grade	Score / Level
JCQQ'GRADETEN-FNM, JCJJ'TEN-LNAME 1020210062	10	788 Distinguished Learner

Item ID	Domain	Standard	Points Earned / Points Possible	View
VR057791	Reading Informational Text	RI.9-10.4	1 / 1	Not Available
VR057797	Reading Informational Text	RI.9-10.3	1 / 2	Not Available
VR057798	Reading Informational Text	RI.9-10.4	1 / 2	Not Available

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Cohort Analysis

An analysis of the performance of cohorts of students over time.

Cohort Performance Over Time Overview

The performance of a grade in the current year is typically reported and compared to the performance of the same grade in the prior school year. For example, grade 3 results in SY 2022-2023 are compared to grade 3 results in SY 2021-2022.

- Indication of how each grade is doing but **does not compare the same students over time.**
- **Different grade levels were affected differently** by the pandemic (Kuhfeld et al., 2020).

Alternatively, the **performance of the same students** can be tracked over time.

- How are **students who stay in Maryland** doing over time?
- **Controls for student mobility** in and out of the state.

Cohort Performance in English Language Arts

Following cohorts of students over time in English Language Arts (ELA), 7-10% more students have become proficient since grade 3.

ELA Percent Proficient by Cohort

Cohort	ELA 3	ELA 4	ELA 5	ELA 6	ELA 7	ELA 8	Change
Class of 2027 (n = 50,308)	40.4%	45.8%	-	55.2%	45.9%	50.1%	+9.7%
Class of 2028 (n = 50,046)	42.4%	-	26.3%	46.6%	49.8%	(2024)	+7.3%
Class of 2029 (n = 55,300)	-	23.5%	41.7%	49.3%	(2024)	(2025)	-

Note: Only students who have a test in each of the years are included in each cohort. Assessments were not administered in 2019-2020 due to the COVID-19 pandemic. SY 2022-2023 data as of August 14, 2023.

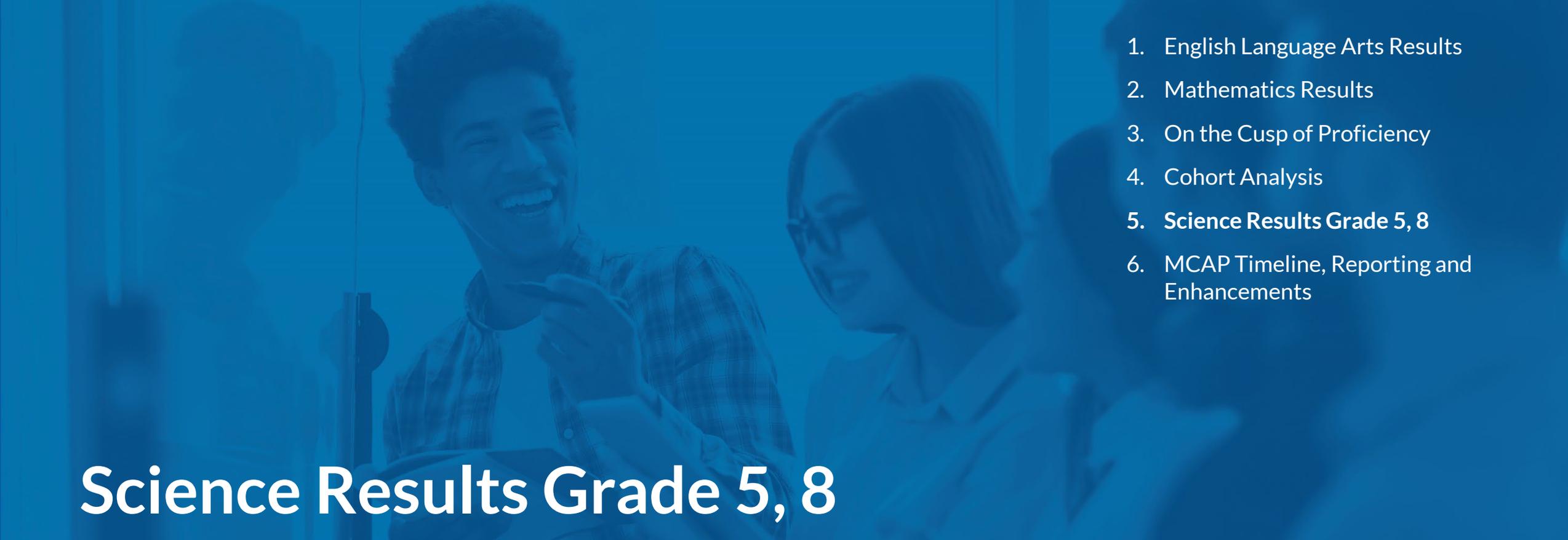
Cohort Performance in Mathematics

Following cohorts of students over time in mathematics, proficiency has decreased by 24 percentage points since grade 3.

Math Percent Proficient by Cohort

Cohort	Math 3	Math 4	Math 5	Math 6	Math 7	Grade 8	Change
Class of 2027 (n = 50,070)	44.5%	42.2%	-	22.4%	18.4%	20.3%	-24.2%
Class of 2028 (n = 49,800)	44.3%	-	24.0%	19.8%	20.8%	(2024)	-23.5%
Class of 2029 (n = 55,020)	-	21.3%	25.4%	20.1%	(2024)	(2025)	-

Note: Only students who have a test in each of the years are included in each cohort. The rate for each grade includes all students from that grade, regardless of which test they took, e.g. Math 8, Algebra I, etc. Assessments were not administered in 2019-2020 due to the COVID-19 pandemic. SY 2022-2023 data as of August 14, 2023.

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Science Results Grade 5, 8

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

Maryland Science Standard Overview (1 of 2)

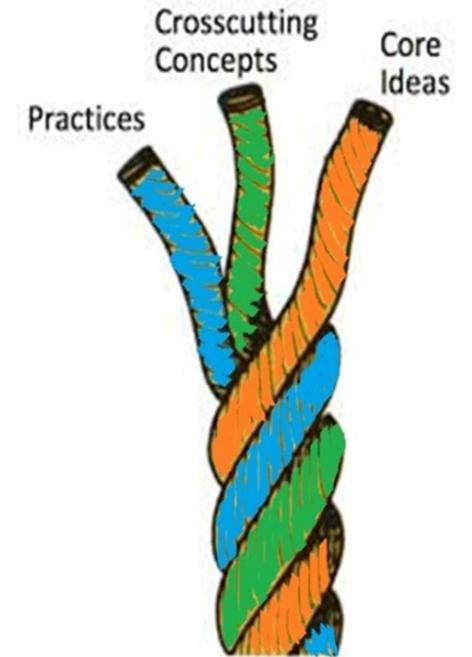
- In 2013, Maryland adopted the Next Generation Science Standards (NGSS) after serving as a lead state in their development.
- The overarching goal is for all high school graduates to have sufficient knowledge of science and engineering to engage in public discussions on science-related issues, be careful consumers of scientific and technical information, and enter the careers of their choice.
- The transition to the new standards in Maryland was a five-year process that included professional development for LEAs on the new standards and developing/purchasing new curriculum.
- High-Quality Instructional Materials (HQIM) have only recently appeared that are aligned to the NGSS. Curriculum materials, assessments and classroom instruction need to do more than present and assess scientific ideas.
- Science assessments are grade span assessments with students assessed in grade 5, grade 8 and in high school for standards in the respective grade span.

NGSS Standards (2 of 2)

The NGSS identify assessable Performance Expectations (PEs) or what students should know and be able to do at the end of instruction. Student learning and assessment around the NGSS should be “three dimensional”.

Each PE represents the integration of three “dimensions” of science education:

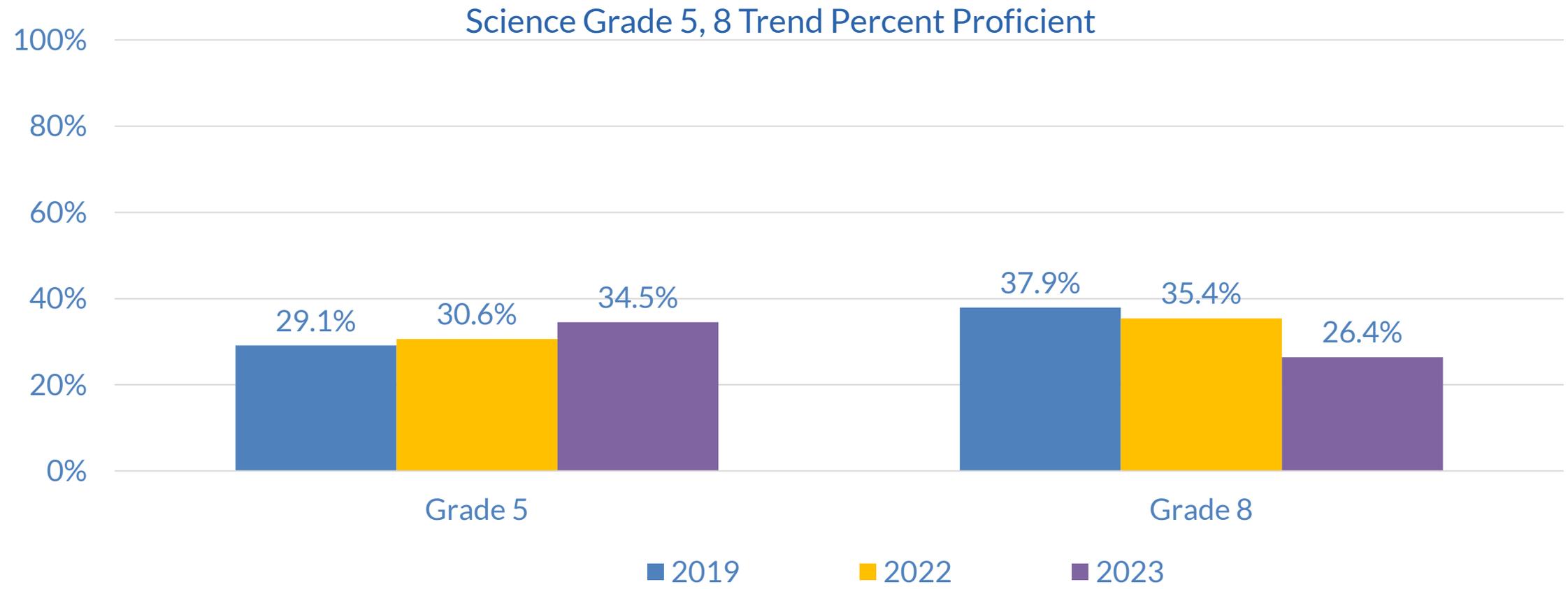
- **Science and Engineering Practices** – What a scientist does to investigate the world around them.
- **Disciplinary Core Ideas** – The key ideas in science that have broad importance within or across multiple science or engineering disciplines. There are four domains: Physical Science, Life Science, Earth and Space Science, and Engineering.
- **Crosscutting Concepts** - Help students explore across the domains. Concepts such as cause and effect help students develop a coherent and scientifically reasoned response.



Given the shift to **three-dimensional learning**, it is important to note that “minimum proficiency” on the NGSS is higher than for most previous science standards and will not look the same.

Science Grade 5, 8 Percent Proficient, SY 2019-2023

Maryland grade 5 students have exceeded pre-pandemic performance in science. Grade 8 has not returned to pre-pandemic proficiency levels.



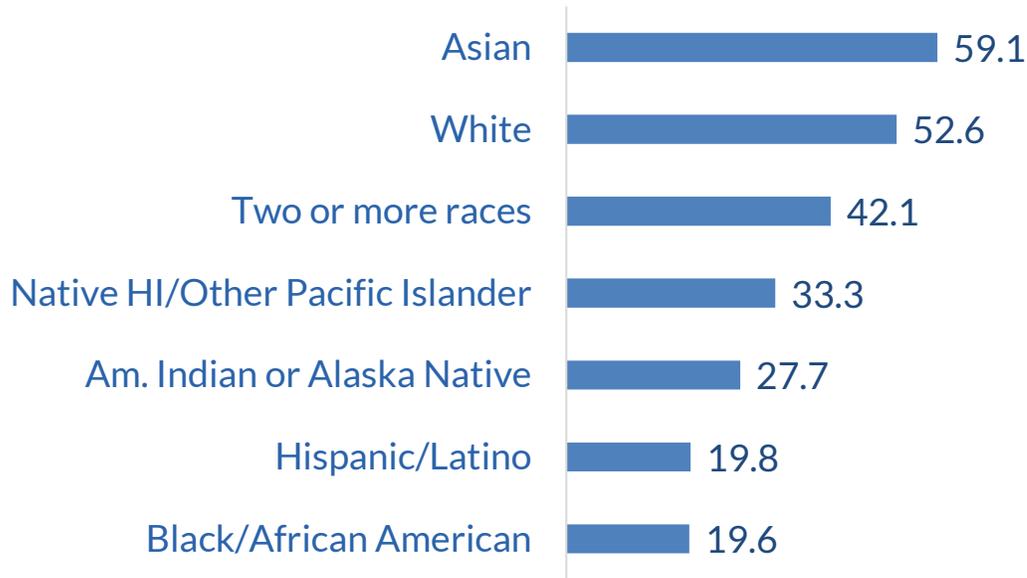
Note: SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021 and are excluded from the trend. SY 2022-2023 data as of August 14, 2023.

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

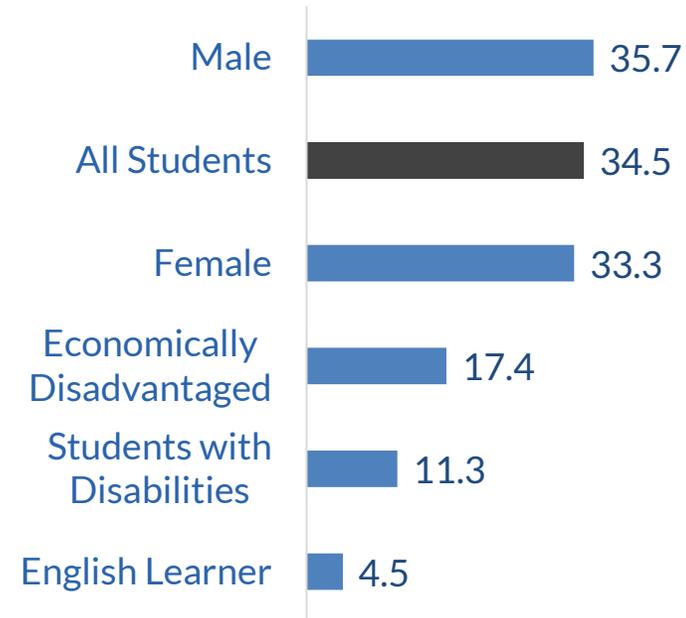
Statewide, 34.5 percent of students were proficient in grade 5 in SY 2022-2023. Asian, White, Two or more races and male student groups performed greater than the Statewide percentage.

Percent of Students Scoring Proficient by Race/Ethnicity and Student Group, SY 2022-2023

Proficiency by Race/Ethnicity



Proficiency by Student Group

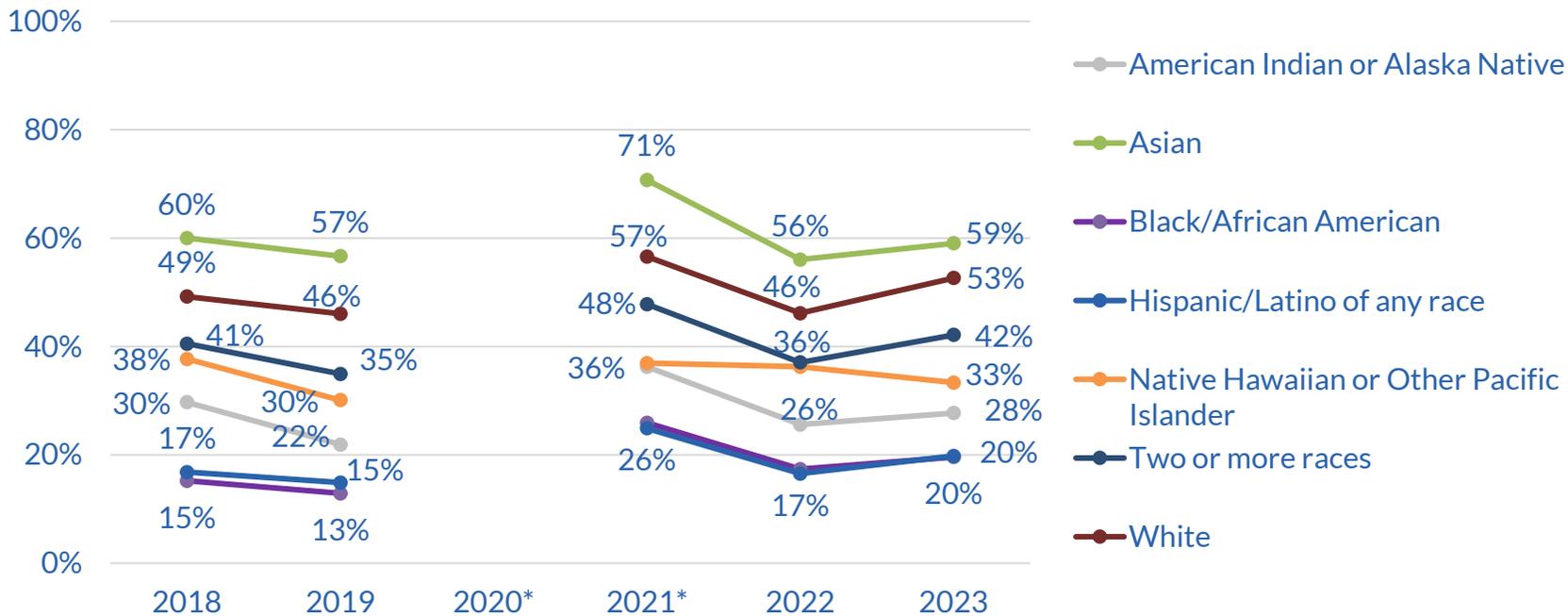


Note: SY 2022-2023 data as of August 14, 2023.

Maryland Science Grade 5 Assessment Trend by Race/Ethnicity

All race/ethnicity student groups have surpassed their pre-pandemic level of performance on the science grade 5 assessment for the SY 2022-2023.

Proficiency Trend by Race/Ethnicity



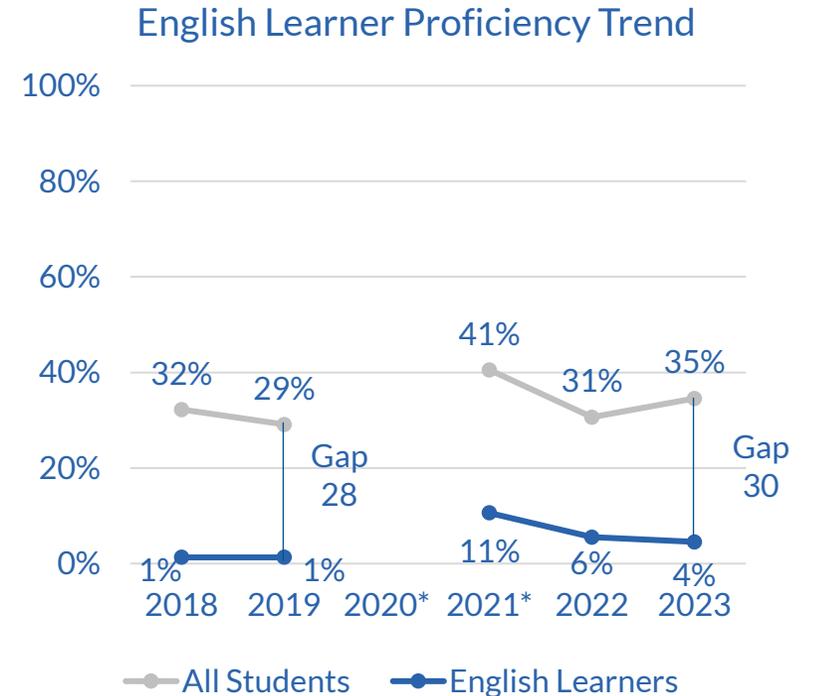
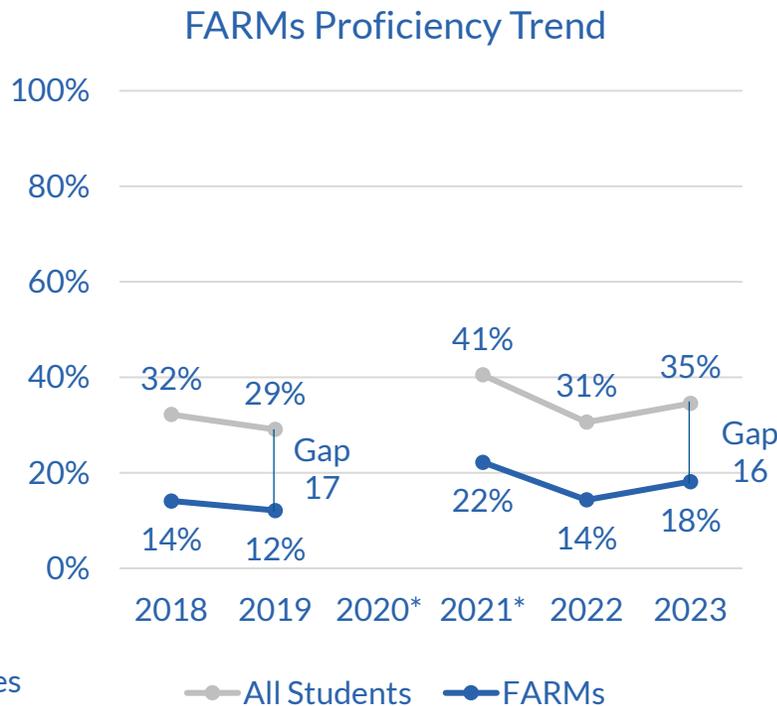
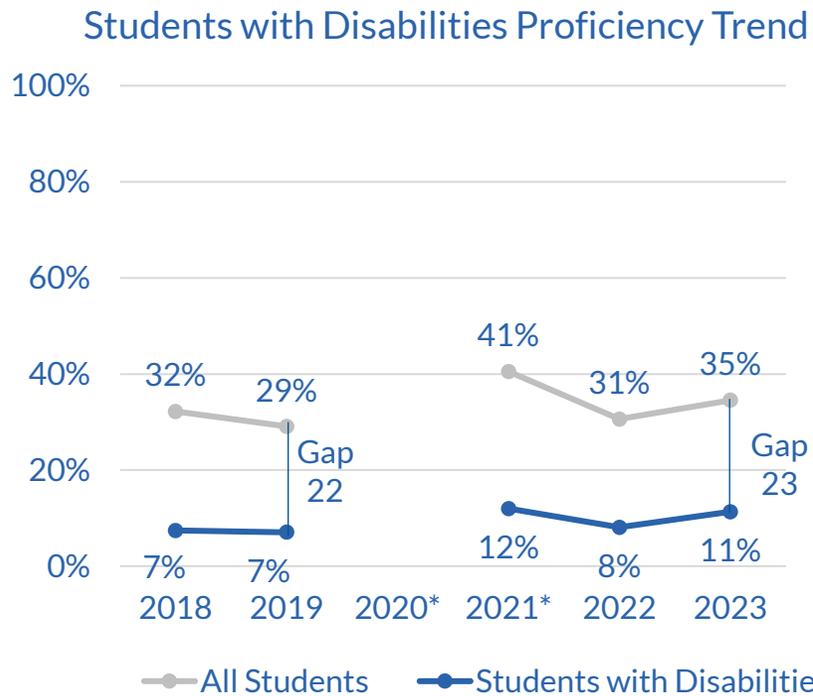
Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	+6	+2
Asian	+2	+3
Black/African American	+7	+2
Hispanic/Latino	+5	+3
Na HI or Other Pac. Islander	+3	-3
2+ Races	+7	+5
White	+7	+6

*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
 SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
 SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Maryland Science Grade 5 Assessment Trend by Student Group

Students with disabilities and FARMs eligible improved in SY 2022-2023 as compared to prior year. However, persistent gaps in performance remain compared to all students on state science grade 5 assessments.



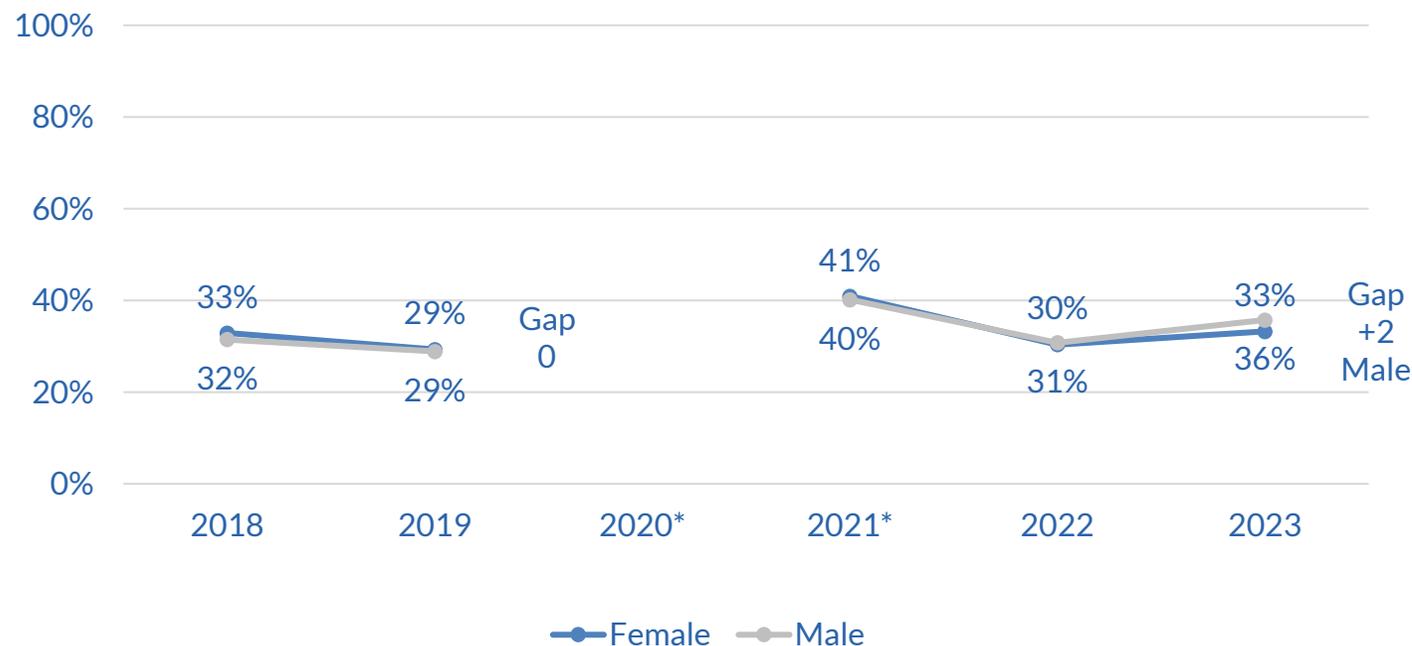
*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
 SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
 SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Science Grade 5 Assessment Trend by Gender

Both female and male student groups have surpassed their pre-pandemic performance on the science grade 5 assessment.

Proficiency Trend by Gender



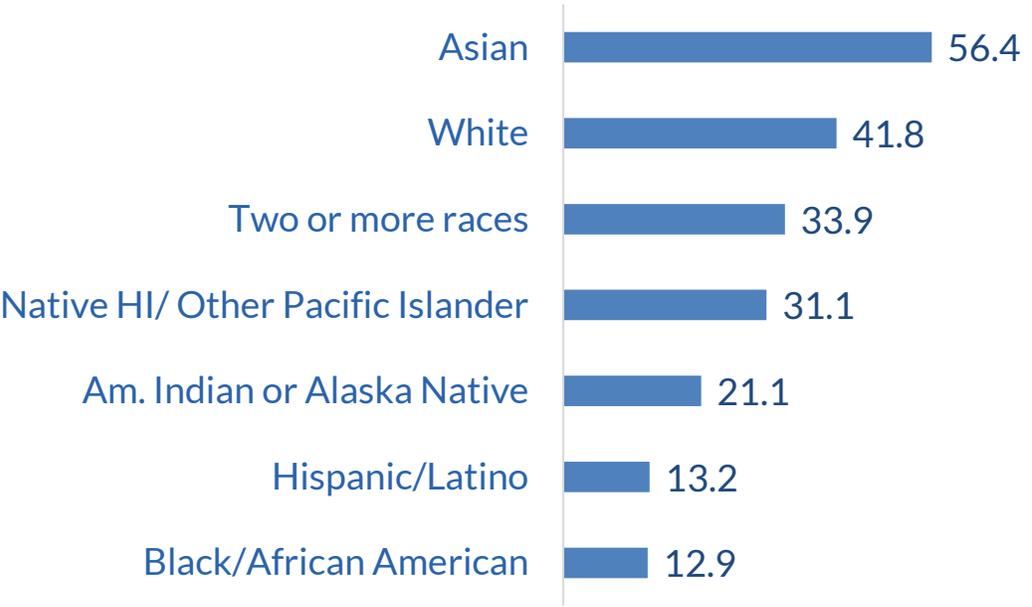
*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic. SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021. SY 2022-2023 data as of August 14, 2023. Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

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

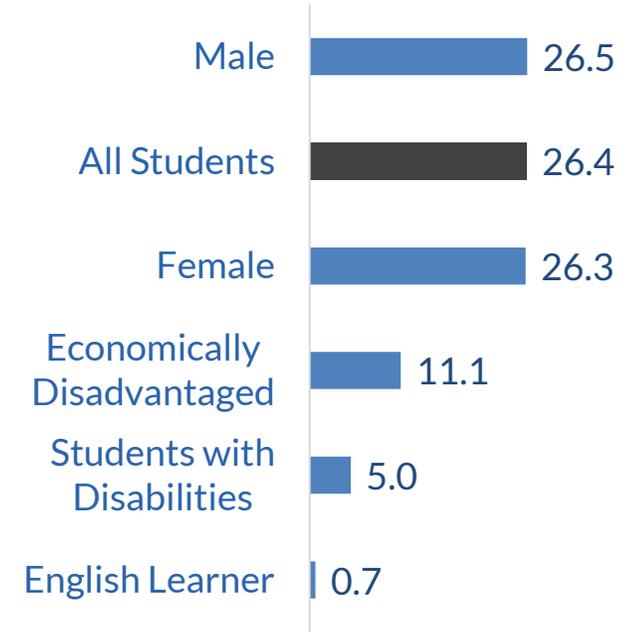
Statewide, 26.4 percent of students were proficient in grade 8 in SY 2022-2023. Asian, White, Two or more race, Native HI/Other Pacific Islander, and male student groups performed greater than the Statewide percentage.

Percent of Students Scoring Proficient by Race/Ethnicity and Student Group, SY 2022-2023

Race/Ethnicity



Student Group

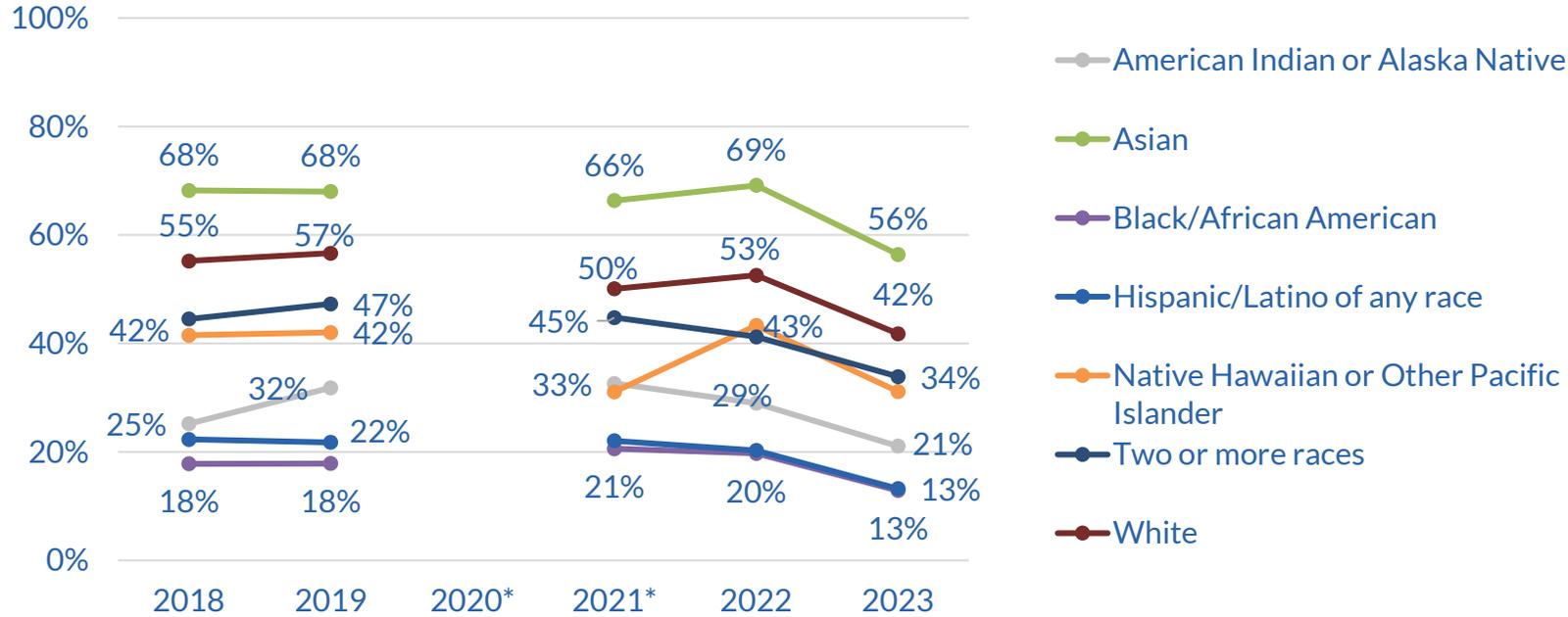


Note: SY 2022-2023 data as of August 14, 2023.

Maryland Science Grade 8 Assessment Trend by Race/Ethnicity

All race/ethnicity student groups have not returned to pre-pandemic performance on the grade 8 science assessment.

Proficiency Trend by Race/Ethnicity



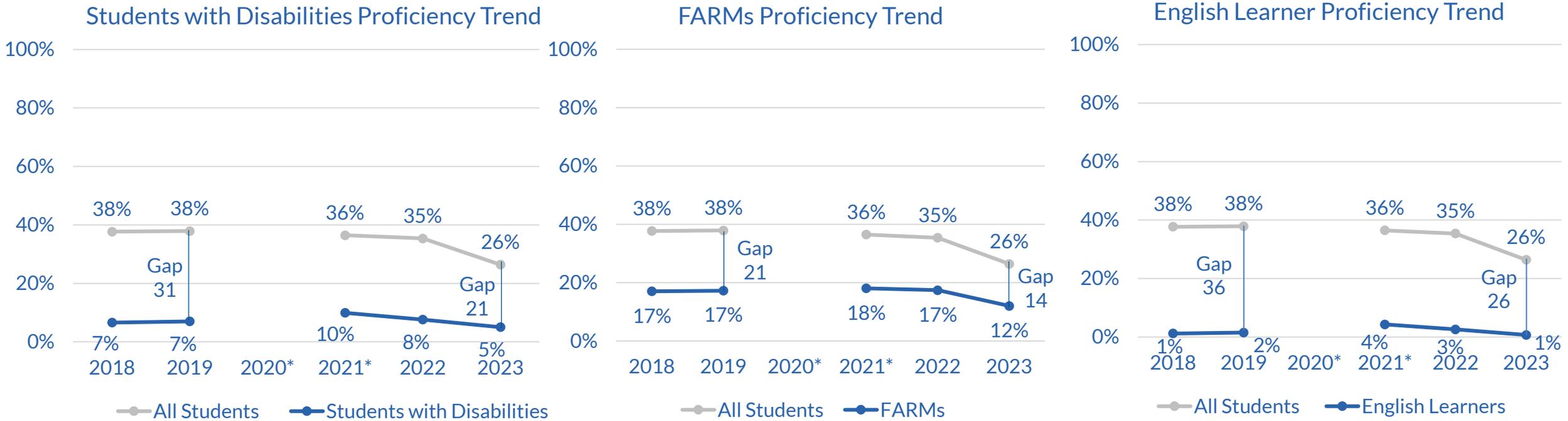
Race/Ethnicity	+/- Percentage Point Change from 2019 to 2023	+/- Percentage Point Change from 2022 to 2023
Am. Indian or AK Native	-11	-8
Asian	-12	-13
Black/African American	-5	-7
Hispanic/Latino	-9	-7
Na HI or Other Pac. Islander	-11	-12
2+ Races	-13	-7
White	-15	-11

*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
 SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
 SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Maryland Science Grade 8 Assessment Trend by Student Group

Students with disabilities and FARMs eligible students on the science 8 assessment declined in SY 2022-2023 as compared to prior year. Persistent gaps in performance remain compared to all students.

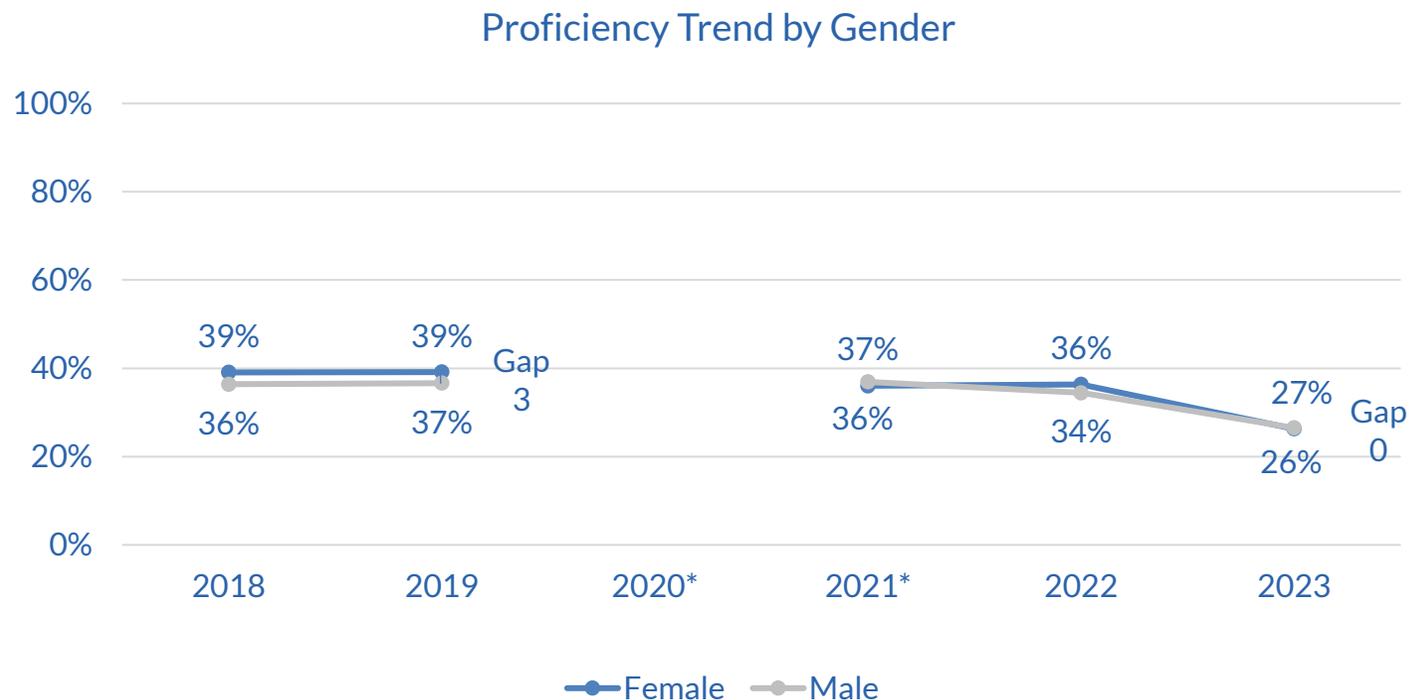


*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.
 SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.
 SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Science Grade 8 Assessment Trend by Gender

Although the male student group performance has improved relative to female student group performance on the science grade 8 assessment, both group performances have declined as compared to pre-pandemic results.



*Note: SY2019-2020 assessments did not occur due to the Covid-19 pandemic.

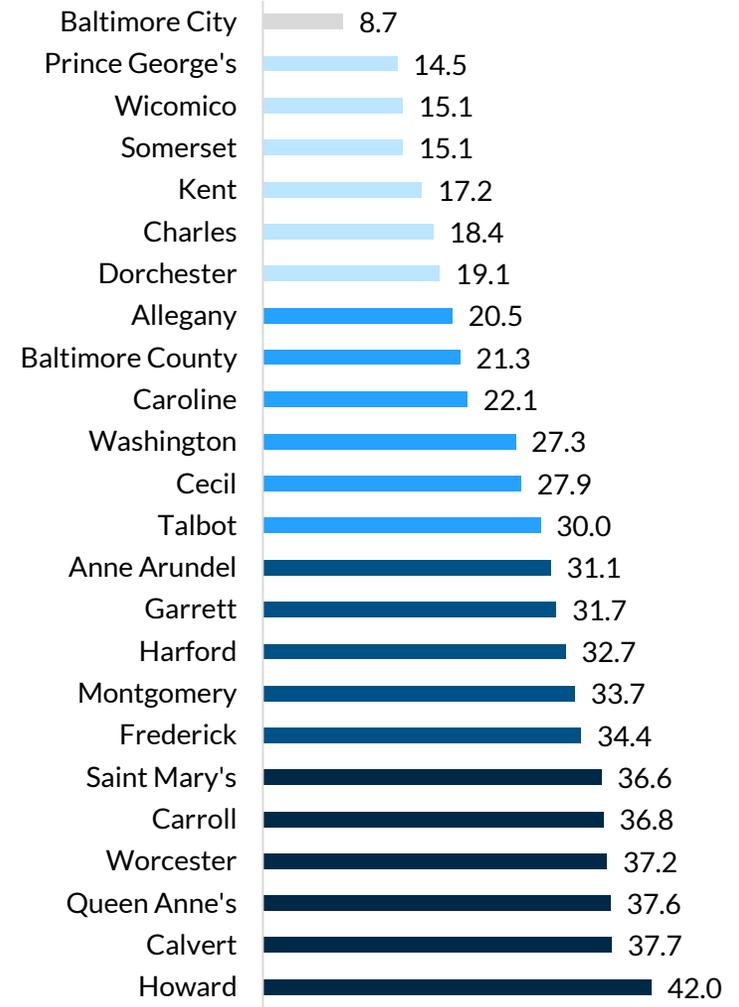
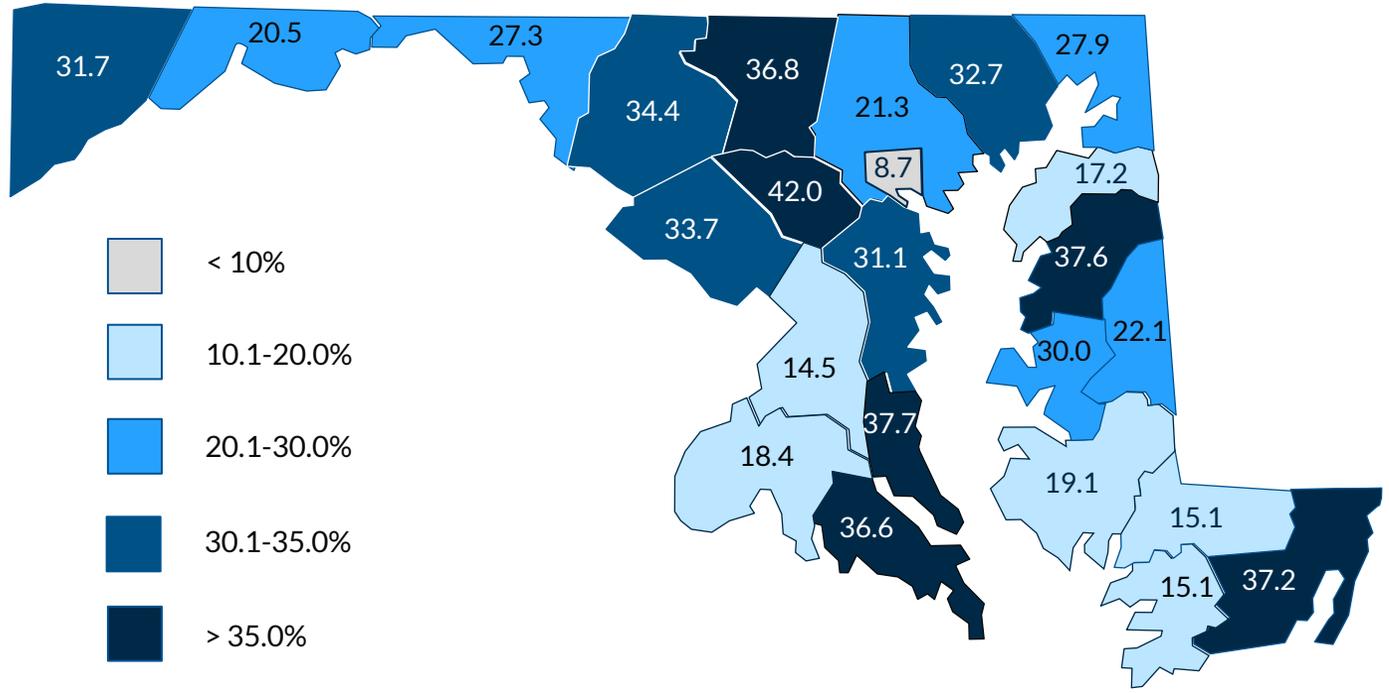
SY 2020-2021 assessments were shortened assessments taken in Early Fall of 2021.

SY 2022-2023 data as of August 14, 2023.

Calculated gaps may appear to be different than proficiency percentages indicate. Proficiency percentages were rounded to the nearest whole percentage, whereas calculated gaps were not.

Science Grade 8 Assessment, SY 2022-2023 Proficiency by LEA

Statewide, the percentage of students scoring proficient on the grade 8 science test was 26.4% for SY 2022-2023. LEAs vary from a low of 8.7% to a high of 42.0% in proficiency percentage. Twenty-three LEAs experienced a decrease when comparing SY 2021-2022 to SY 2022-2023 results.



Note: SY 2022-2023 data as of August 14, 2023.



MCAP Timeline, Reporting and Enhancements

1. English Language Arts Results
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6. **MCAP Timeline, Reporting and Enhancements**

Reporting overview, enhancements, and timeline for release of the SY 2022-2023 Assessment Results.

MCAP Reporting Timeline, SY 2022-2023

Reporting timeline for LEAs and educators include student level assessment data results and reports for use by local education agencies.

Date	Report
July 28, 2023	Every Student Every Attempt (ESEA) file provided to LEA
August 11, 2023	Final Reporting Category Roster, Reporting Category Summary, Demographic Performance Level Summary, Item Analysis Report
August 25, 2023	Evidence Statement Analysis, Content Standards Roster
August 31, 2023	Growth Data

MCAP Reporting Timeline, SY 2022-2023

Reporting timeline for students and families includes Individual Student Reports (ISRs) provided to students and families. Below is the timeline for the provision of ISRs for distribution to families.

Date	Assessment ISR Report
September 15, 2023	Grade 3 - 8 ELA and math Grade 5 and 8 Science High school assessments (Algebra I, II, Geometry, English 10)

Individual Student Reports (ISRs)

- 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
- Additional information on how a student performed on sub-scores such as content, modeling and reasoning for math.
- Report provided to student and families with information on student's score, performance level with a performance level description.

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

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.*

MCAP Reporting Timeline, SY 2022-2023

Reporting timeline includes data for the public for the results of the SY 2022-2023. Results will be available on the Maryland school report card website (MDReportcard.org).

Reporting by Date	Description
August 22, 2023	State Board presentation
September 26, 2023	MDReportcard.org updated
December 2023	Maryland School Report Card

New reporting beginning with SY 2022-2023 results include schoolwide performance by subject area.

Public Reporting, Data Suppression Methods, and Future Enhancements to Reporting

There is a balance required to protect the privacy of students while also providing as much information as possible to families, local communities and interested stakeholders. Student disaggregation by grade and student group may not be provided publicly if the results would yield personally identifiable information (PII) about an individual student.

- Privacy of individual student records is protected under the **Family Educational Rights and Privacy Act (FERPA)**, 20 U.S.C. §1232g, 34 CFR Part 99.
- Under FERPA, states and local education agencies (LEAs) are **responsible for protecting students’ personally identifiable information (PII) from disclosure at all times.**
- **Personally identifiable information (PII)** includes information that can be used to distinguish or trace an individual’s identity either directly or indirectly through linkages with other information.
- When reporting data to the public the State is required to:
 - not use disaggregated data for one or more subgroups to report achievement results if the results would reveal personally identifiable information about an individual student, and
 - to “implement appropriate strategies to protect the privacy of individual students...” (34 CFR §200.7).

https://studentprivacy.ed.gov/sites/default/files/resource_document/file/FAQs_disclosure_avoidance.pdf; <https://www.govinfo.gov/content/pkg/CFR-2011-title34-vol1/pdf/CFR-2011-title34-vol1-sec200-7.pdf>
<https://studentprivacy.ed.gov/content/personally-identifiable-information-pii>

MSDE Suppression Documentation

MSDE applies suppression to publicly reported aggregate LEA- and school-level data that is connected to student education data and outcomes. State-level data are not suppressed. This includes, but is not limited to:

- assessment results,
- graduation rates,
- attendance rates,
- college enrollment,
- student group counts such as race/ethnicity, gender, economically disadvantaged, and students with disabilities, and English learners

Decision makers at the LEA and school levels continue to have access to all data.

A summary of MSDE’s data suppression methods for public reporting is published under the Resources section of the Maryland Report Card website and on the Maryland Public Schools Website.

Maryland Report Card website Resources: <https://reportcard.msde.maryland.gov/Graphs/#/Resources/ResourcesLinks/3/17/6/03/0407/2022>

Maryland Public Schools website: https://marylandpublicschools.org/about/Documents/DAAIT/Accountability/Data-Suppression-Requirements-2023_a.pdf



Data Suppression Requirements for Public Reporting

Overview

The purpose of data suppression is to ensure the protection of personal data on individuals when releasing summary data in public reporting. Reporting of data must first and foremost adhere to legal requirements to protect individuals’ personally identifiable information (PII) under federal and state law. Recognizing this challenge, student disaggregation by grade and student group may not be provided publicly if the results would yield PII about an individual student. There is a balance required to protect privacy while also providing as much information as possible to families, local communities and interested stakeholders. ¹

WHAT IS DATA SUPPRESSION?

Data suppression is a disclosure avoidance method that is used to protect the identities, privacy, and personal information of individuals. Disclosure avoidance refers to the efforts made to reduce the risk of disclosure, such as applying statistical methods to protect PII in aggregate data tables. These safeguards, often referred to as disclosure avoidance methods, can take many forms (e.g., data suppression, rounding, re-coding, etc.).

WHY ARE DATA SUPPRESSED?

The Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. §1232g, 34 CFR Part 99, is a federal law that protects the privacy of student education records. Under FERPA, states are responsible for protecting students’ PII from disclosure when reporting. Even data that are reported in aggregate have the potential to disclose PII.

Any release of demographic or performance information derived from students’ education records, even in aggregate form, carries some level of risk of disclosure. No disclosure avoidance methodology can completely eliminate that risk; however, the U.S. Department of Education has instructed States to assess the risk of disclosure considering FERPA’s confidentiality standard. U.S. Dep’t of Educ., Privacy Technical Assistance Center, Frequently Asked Questions—Disclosure Avoidance (May 2013). That standard prohibits the release of information that would permit a “reasonable person in the school community ... to identify [an individual] with reasonable certainty.” 34 CFR §99.3.

To abide by the regulation outlined in FERPA and protect student’s PII, MSDE applies suppression rules to any aggregated student data that is connected to student education data and outcomes. This includes, but is not limited to, any reporting on student assessment results, graduation rates, or any student group disaggregation such as race/ethnicity, economically disadvantaged, and special education and English language services. ²

Maryland's N-Size Determination

As required by the U.S. Department of Education and outlined in the ESSA state plan template, States are required to document the minimum n-size used in their accountability system. Maryland's ESSA state plan was approved in 2018.

- **Maryland established the minimum n-size of 10 for accountability determinations.** This minimum n-size allows for the maximum number of LEAs, schools, and student groups to be represented in the accountability system and provides an acceptable level of statistical reliability and validity.
- **The change to the n-size for accountability purposes was discussed in the ESSA Accountability Workgroup.** This workgroup held consistent monthly meetings from July 2016 through July 2017. The committee consisted of both MSDE and external members, and representatives included ten LEAs. In addition to the recommendations of this group around the n-size, Maryland solicited feedback at state sponsored Regional Listening tours, and in various focus group meetings.

Top and Bottom Coding

As required by the U.S. Department of Education and outlined in the ESSA state plan templates, States should consult the Institute for Education Sciences report “Best Practices for Determining Subgroup Size in Accountability Systems While Protecting Personally Identifiable Student Information” to identify appropriate statistical disclosure limitation strategies for protecting student privacy

- In addition to the minimum n-size of 10, MSDE applies top and bottom coding when reporting very high and very low percentages.
- Percentages that are less than or equal to 5% and greater than or equal to 95% have top and bottom coding suppression applied. When percentages meet these top and bottom criteria, the numeric percentage in the data cell is replaced with text that reads:
 - $\leq 5\%$
 - $\geq 95\%$
- If the count corresponding to the suppressed percentage is reported in the data report, the numeric count value will be replaced with an asterisk (*).

<https://nces.ed.gov/pubs2017/2017147.pdf>

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