NEWTON PUBLIC SCHOOLS
Equity & Excellence

Date: November 7, 2022

To: School Committee - Newton Public Schools

From: Renee McCall, Assistant Superintendent of Teaching and Learning
Katy Hogue, Director of Data Analysis and Enrollment Planning

Re: Spring 2022 MCAS Results

Please find the Spring 2022 MCAS results report attached that provides summary data on school/district accountability and overall student achievement. At the request of the School Committee, we have added a comparison district performance analysis to the report this year. A high-level overview of the data findings that include reflections on performance, along with detailed plans to address student achievement will be provided during our presentation on November 7th.

Accountability and Achievement:
Results of MCAS Testing Spring 2022

In Spring 2022, Newton Public Schools students in Grades 3 – 8 took the Next-Generation MCAS tests in English Language Arts and Mathematics for the fifth year. Fifth and eighth grade students took the Next-Generation MCAS Science and Technology/Engineering tests for the third year. High school students took Next-Generation MCAS tests in Mathematics and English Language Arts in Grade 10 for the third year, and most freshmen took the Next-Generation MCAS physics test for the first year. MCAS tests were not administered in Spring 2020 due to the COVID-19 pandemic.

This report is organized into five sections:

A. School and District Accountability
B. Overall Student Achievement
C. Student Achievement by Subgroups
D. Comparison Districts
E. Cohort Analysis

School and District Accountability

The Newton Public Schools did not receive an accountability determination in 2022 because of the COVID-19 pandemic. None of our schools received an accountability determination either, although two schools were identified for low participation rates for particular subgroups: Brown Middle School for African American/Black students (participation rate of 91%) and Lincoln-Eliot Elementary School for All Students in Science (participation rate of 92%).

Overall Student Achievement

Results from the Next Generation MCAS are reported for Spring 2022. The remaining Legacy MCAS assessments are being phased out. A brief description of these two assessments follows for reference:

- Legacy MCAS was the original MCAS test administered on paper. It was used for the last time for 10th grade English and math and for grades 5 and 8 science in 2018. The last administration of the 9th grade introductory physics legacy MCAS was in 2021.
- Next-Generation (Next-Gen) MCAS is the "new" MCAS developed by DESE and provides achievement, growth, and participation data for the new accountability system.
    - First administered in Spring 2017 for English Language Arts and Mathematics in Grades 3 - 8.
    - In 2018, districts had a choice in some grade levels to administer it online or on paper.
    - Starting in 2019, all MCAS was Next-Gen, including science (except grade 9 science) and high school.
    - Starting in 2022, grade 9 Biology and Introductory Physics were Next-Gen tests. Grade 9 Chemistry and Technology/Engineering will be administered for the last time in Spring 2023 as legacy tests.
    - All Next-Gen MCAS assessments are administered electronically, with the exception of paper-based assessments for students with this accommodation on IEPs or 504s or first-year EL students who have little familiarity with technology.

Descriptors of Achievement Results

The tests use different performance levels to describe and categorize the results:

Legacy MCAS:

- Advanced
- Proficient
- Needs Improvement
- Warning/Failing

Next-Generation MCAS:

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

Performance by grade level

The tables below display the percentage of students in each performance level for the Spring 2022 assessments. Please note that percentages may not sum to 100% due to rounding.

English Language Arts: Next-Generation MCAS 2022								
	Percentage of students scoring at each performance level							
Grade Level	Exceeding or Meeting Expectations	Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations	Average Scaled Score	N	SGP
3	66%	12%	53%	28%	7%	507	869	N/A
4	56%	9%	48%	38%	6%	503	846	54
5	66%	15%	52%	29%	4%	508	905	57
6	65%	21%	45%	27%	8%	509	868	56
7	64%	9%	56%	29%	7%	505	971	53
8	72%	18%	55%	22%	6%	511	928	61
3-8	65%	14%	51%	29%	6%	507	5,387	56
10	80%	18%	61%	18%	3%	514	937	60

Mathematics: Next-Generation MCAS 2022								
	Percentage of students scoring at each performance level							
Grade Level	Exceeding or Meeting Expectations	Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations	Average Scaled Score	N	SGP
3	65%	17%	47%	26%	9%	508	865	N/A
4	64%	14%	50%	29%	7%	507	845	53
5	62%	11%	51%	32%	6%	506	910	58
6	71%	16%	56%	24%	5%	510	864	59
7	70%	19%	51%	23%	7%	510	971	63
8	73%	29%	44%	23%	4%	515	926	68
3-8	68%	18%	50%	26%	6%	509	5,381	61
10	79%	34%	45%	18%	3%	520	923	68

Science and Technology/Engineering/Physics Grades 5, 8, 9 Next-Generation MCAS 2022								
	Percentage of students scoring at each performance level							
Grade Level	Exceeding or Meeting Expectations/ Advanced or Proficient	Exceeding Expectations /Advanced	Meeting Expectations /Proficient	Partially Meeting Expectations /Needs Improvement	Not Meeting Expectations /Failing	Average Scaled Score	N	SGP
5	64%	14%	50%	29%	7%	506	906	N/A
8	69%	13%	56%	26%	5%	508	916	N/A
9	77%	27%	50%	20%	3%	517	939	N/A

The tables below display participation rates by grade and subject and by subgroup and subject.

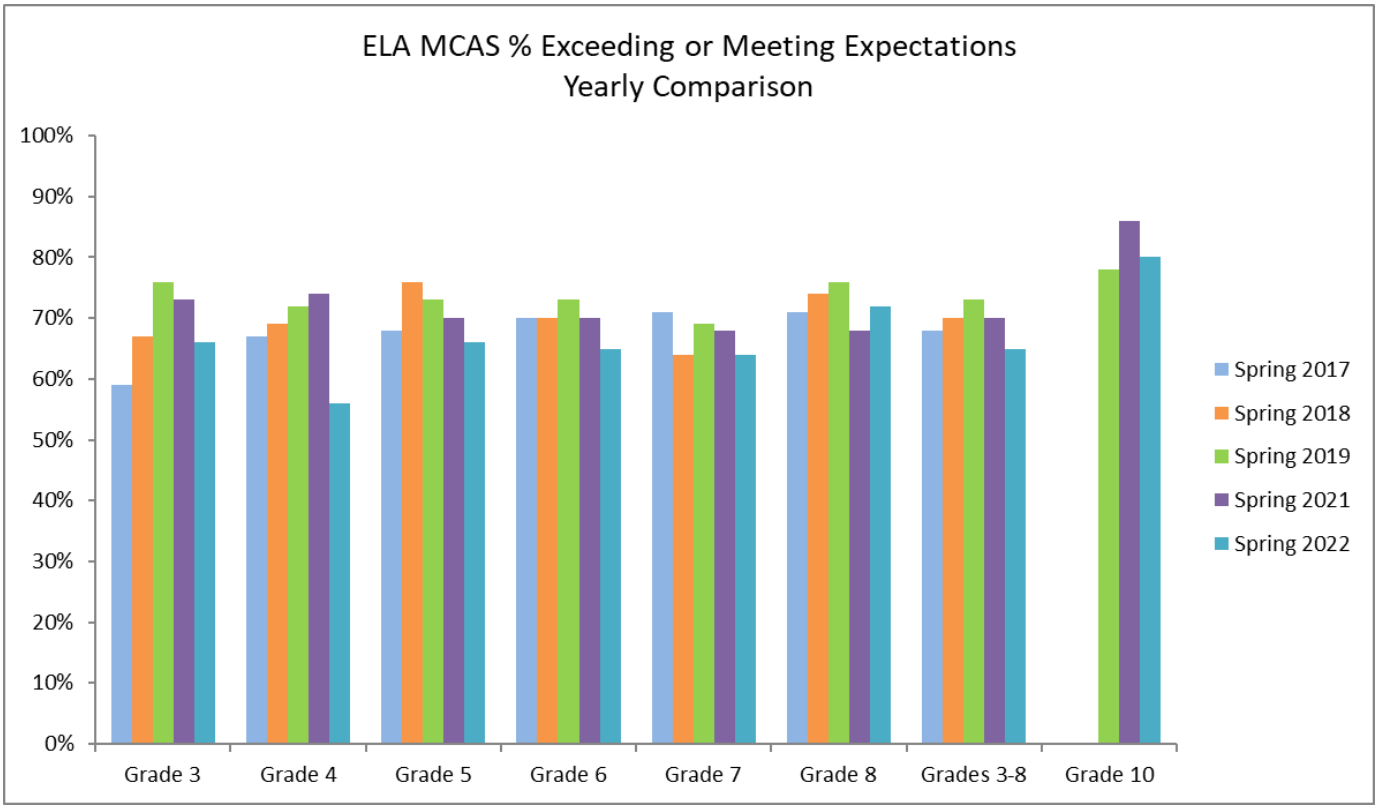
Grade	ELA Participation rate	Math Participation Rate	Science Participation Rate
3	99%	99%	N/A
4	99%	100%	N/A
5	99%	99%	99%
6	99%	99%	N/A
7	98%	98%	N/A
8	98%	98%	97%
10	99%	98%	N/A

Grades 3-8			
Subgroup	ELA Participation rate	Math Participation Rate	Science Participation Rate
African American/Black	98%	98%	96%
Asian	99%	99%	99%
Hispanic/Latinx	99%	99%	99%
Multi-Race	99%	99%	98%
White	98%	98%	98%
EL	97%	99%	99%
SWD	97%	97%	96%
Eco. Dis.	97%	97%	96%
Female	99%	99%	98%
Male	99%	99%	98%

Grade 10		
Subgroup	ELA Participation rate	Math Participation Rate
African American/Black	100%	98%
Asian	99%	99%
Hispanic/Latinx	99%	95%
Multi-Race	100%	100%
White	99%	97%
EL	100%	93%
SWD	97%	96%
Eco. Dis.	99%	95%
Female	99%	97%
Male	99%	98%

Five year performance history

Although results from Spring 2021 are displayed in the tables below, this analysis compares Spring 2022 scores to Spring 2019 scores (pre-pandemic). For ELA, Newton saw a decline in the percentage of students exceeding or meeting expectations in most grades in Spring 2022 compared to Spring 2019, except for grade 10 ELA. The state also experienced this pattern. The largest decline in the percentage of students scoring exceeding or meeting expectations was in grade 4, followed by grade 3.



The state saw historically low writing scores in grades 3-8 in 2022, with lower scores clustered in grades 3-5. In grades 3-5, the state saw a decline of 25% in average points scored per essay from 2019; Newton saw a 18% decline in average points scored per essay. In grades 6-8, the state saw a decline of 13% in average points scored per essay compared to 2019; Newton saw a 5% decline. Grade 8 is the exception for Newton: grade 8 saw an increase of 2% in average points scored per essay compared to 2019. In addition, the percentage of students scoring a zero on an essay increased: statewide, this percentage increased from 19% in 2019 to 31% in 2022, while Newton increased from 6% in 2019 to 9% in 2022. Please note that a score of zero means that the student did write something in response to the essay, but it was most likely off-topic or not responsive to the prompt.

Students in grades 3 and 4 wrote only one essay for the ELA MCAS and it was the final item on the assessment in Spring 2022. Students in grades 5, 6, 7, 8, and 10 wrote two essays (one in each session of the ELA assessment). The essay scores are broken into two components: a standard English convention score, which is reported in the language reporting category, and an idea development score, which is reported in the writing reporting category. The tables below display the average idea development scores only (or the writing reporting category).

Writing scores were lowest in grade 3 and highest in grade 10, increasing slightly as the grade level increased. On average, students in grade 3 scored 0.9 out of 4 points, or 23.4% of the points available. Students in grade 10 scored 6.3 out of 10 points, or 62.7% of the points available.

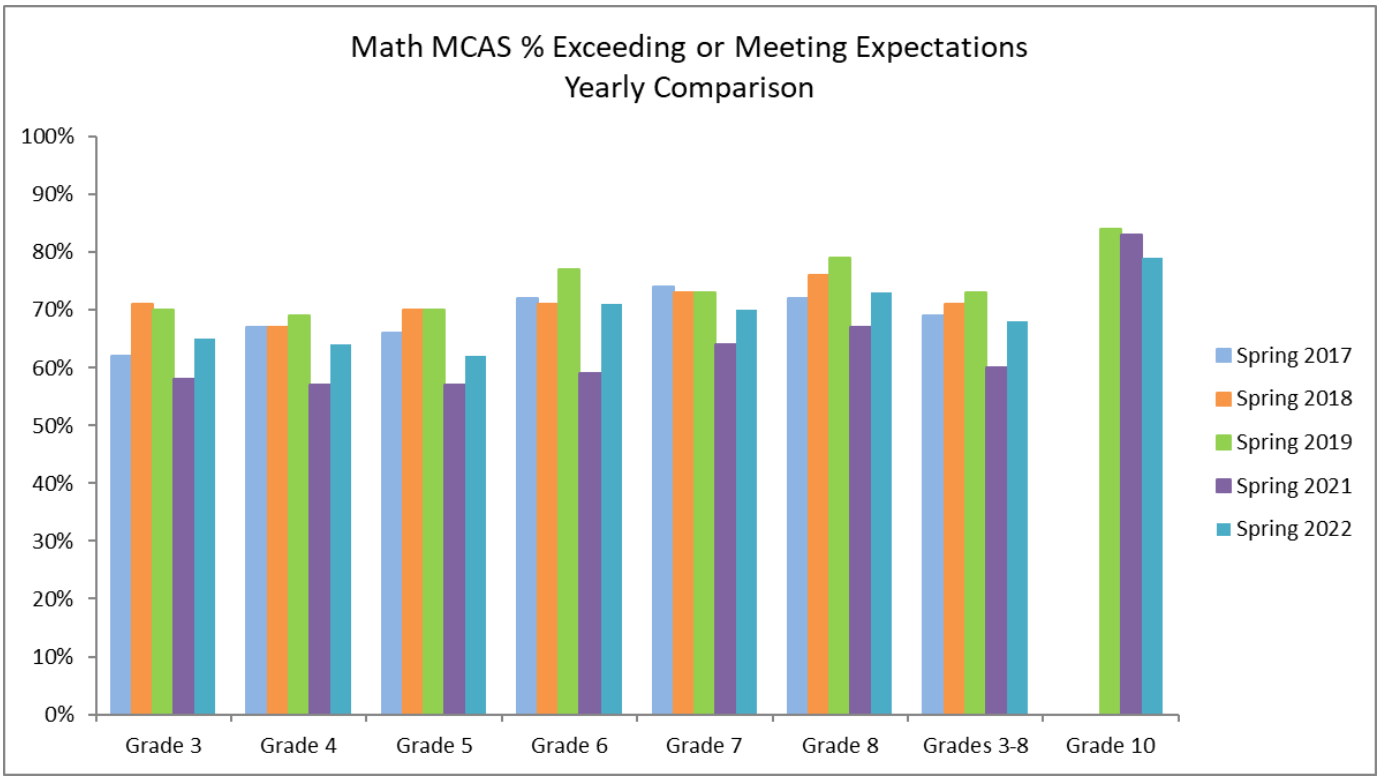
Grade Level	Writing average score	Total Writing points available	Average % points earned
3	0.9	4	23.4%
4	1.4	4	35.5%
5	3.3	8	40.7%
6	4.0	10	40.3%
7	4.1	10	40.6%
8	5.2	10	52.4%
10	6.3	10	62.7%

The next two tables display writing scores by grade and subgroup. Cells highlighted in blue indicate an average score below the grade level's average score. With the exception of grade 3, students who identify as African American/Black or Hispanic/Latinx had an average score below the grade level's average score. In grade 3, students who identify as African American/Black had the same average score as the grade level as a whole. English learners, students with disabilities, and economically disadvantaged students had lower average writing scores than their corresponding grade level in all grades.

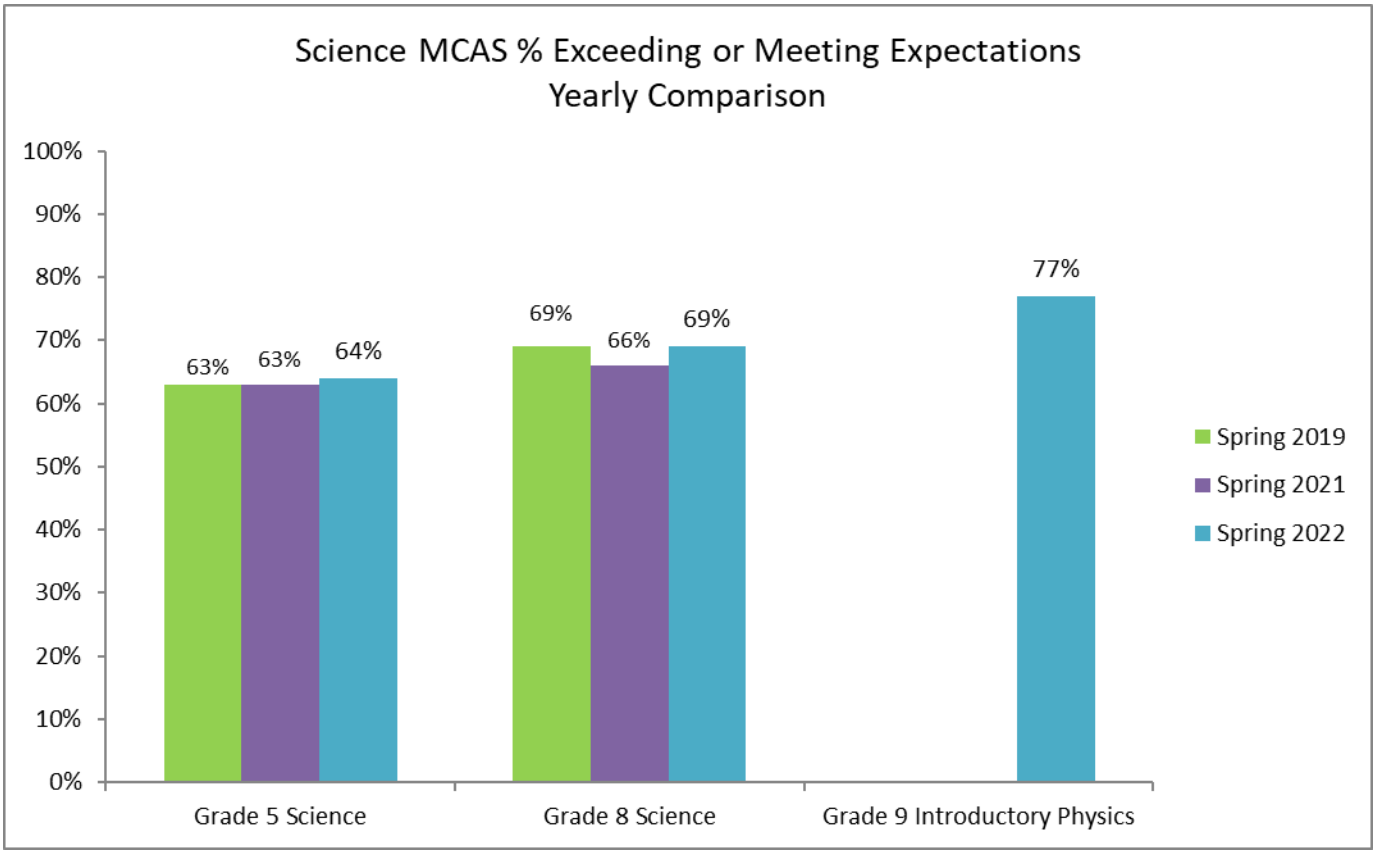
	Grade Level						
Race/Ethnicity	**3**	**4**	**5**	**6**	**7**	**8**	**10**
African American/Black	0.9	0.9	1.5	3	2.9	4	4.8
Asian	1.2	1.7	3.8	4.6	4.5	5.7	6.6
Hispanic/Latinx	0.7	1.1	2.3	3.1	3.7	4.2	5.3
More than 1 race	0.8	1.7	3.4	3.9	4.3	5.7	6.8
White	0.9	1.4	3.4	4.1	4.1	5.3	6.4
District	0.9	1.4	3.3	4	4.1	5.3	6.3

	Grade Level						
Additional Subgroups	**3**	**4**	**5**	**6**	**7**	**8**	**10**
English Learner (EL)	0.5	0.8	1.4	1.4	2.4	3.6	3.2
Non-English Learner (EL)	1	1.5	3.4	4.1	4.1	5.3	6.3
Students with disabilities	0.6	0.7	1.4	2.6	2.6	3.4	4.5
Non-students with disabilities	1	1.6	3.7	4.3	4.4	5.7	6.7
Economically disadvantaged	0.7	0.8	1.6	2.8	3	4	5.2
Non-economically disadvantaged	1	1.5	3.5	4.2	4.2	5.5	6.5
District	0.9	1.4	3.3	4	4.1	5.3	6.3

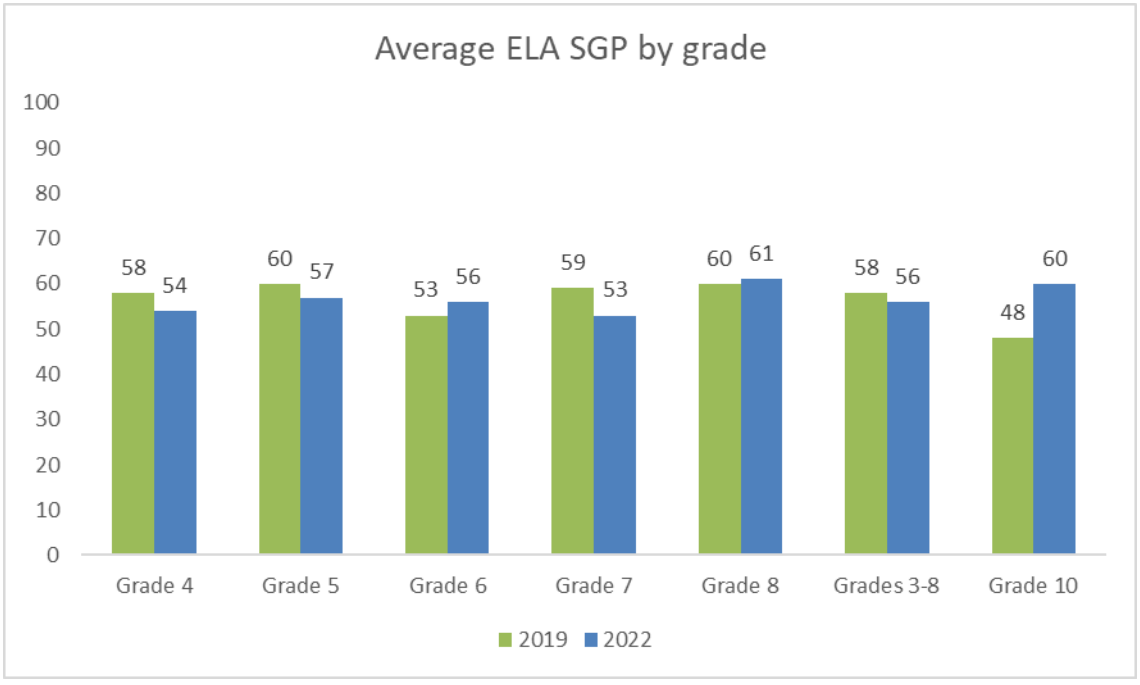
For math, Newton saw a decline in the percentage of students exceeding or meeting expectations in all grades in Spring 2022 compared to Spring 2019; however, math scores overall show improvement from Spring 2021, indicating some positive returns towards pre-pandemic scores. For math, all grade levels saw a similar decline in the percentage of students scoring exceeding or meeting expectations.

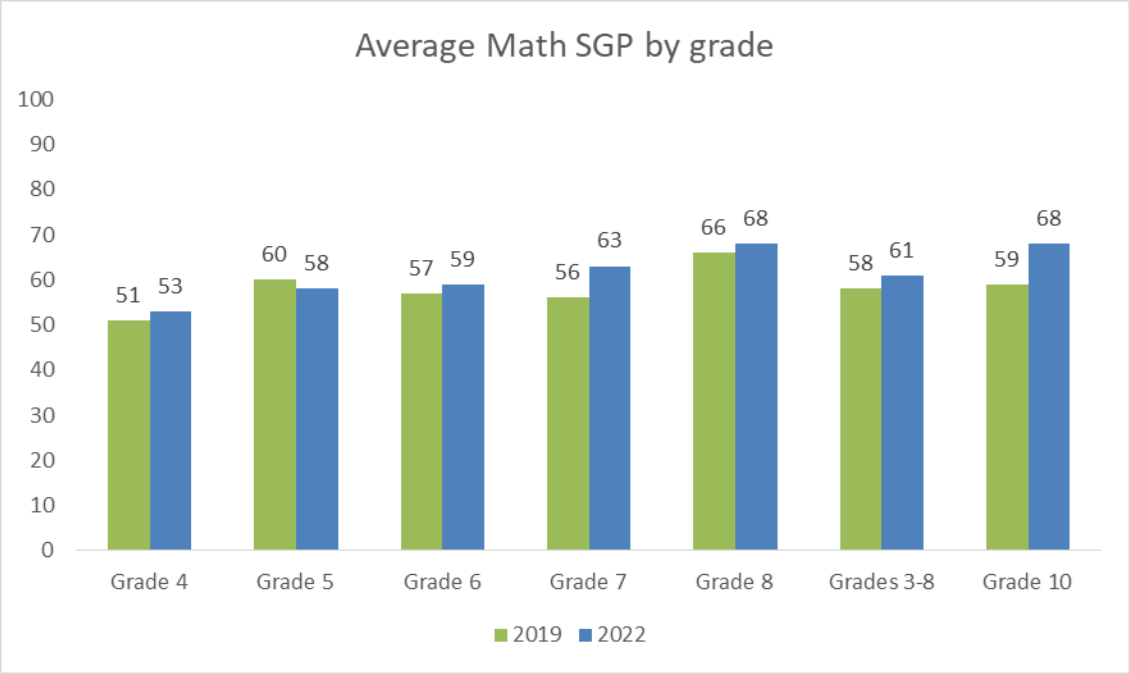


For science, Newton saw a return to pre-pandemic scores based on the percentage of students scoring exceeding or meeting expectations in grades 5 and 8. This pattern is different from the state, which saw a decline in science scores compared to pre-pandemic scores. Spring 2022 was the first year of the Next-Gen Physics test in high school.



The next two graphs display average student growth percentile (SGP) by subject and grade for 2019 and 2022, which show positive trends. For both ELA and math, the average SGP in 2022 for most grade levels falls into the typical growth range (40-59). Average SGP in grades 8 and 10 for ELA and grades 7, 8, and 10 in math fell into the high growth range.





We are very proud of our students and their teachers whose work is reflected in these scores, especially during the COVID-19 pandemic.

We also know that success is not distributed proportionately among all our student subgroups. The tables and charts in the next section detail the differences in performance among identified student subgroups. In addition, the following sections include details on the performance of comparison districts and a cohort analysis of MCAS performance.

Student Achievement by Subgroups

The Newton Public Schools is committed to achieving our system-wide goals of Excellence and Equity. One important measure of our progress is the disaggregation by subgroups of our student performance on MCAS. The following graphs illustrate the differences in student achievement by race/ethnicity, English Learner (EL) status, economically disadvantaged status, students with disabilities status, and gender.

Average scaled scores are included in the subgroup analyses in addition to the percentage of students scoring Exceeding or Meeting Expectations. Average scaled scores have been included to provide information on how the average student in each subgroup is performing, as data on percentages of students scoring Exceeding or Meeting Expectations focuses only on students in those performance levels. Taken together, these metrics can provide a more holistic view of subgroup achievement on the MCAS. The state has also recommended the use of average scaled scores when analyzing subgroup achievement. A scaled score of 500 is the cut score for Meeting Expectations. Please note that the scaled scores on the Next-Gen MCAS range from 440 to 560; most graphs in this analysis show the range as 480 to 530 so it is easier to see differences in average scaled score by subgroup. On the Average Scaled Score charts, the 500 score is indicated by a darkened line across the chart to indicate the minimum scaled score required to "meet expectations."

A note about differences in achievement by gender:

In English Language Arts Grades 3 - 8, we see a persistent difference in the percent of students meeting or exceeding expectations between male and female students, with females scoring about 12 points higher each year. The average scaled scores reflect a similar trend with approximately an 8-point difference. At the high school level, while 84% of female sophomores scored meets or exceeds expectations, fewer male sophomores (75%) met that measure.

In math, there are virtually no differences in the percent of students meeting or exceeding expectations between male and female students in grades 3-8 over the past five years, nor is there a difference in average scaled scores. This year, in grade 10, a slightly higher percentage of males scored meeting or exceeding expectations than females (81% versus 77%), while the opposite was true last year.

In Science and Tech/Engineering in grades 5 and 8, 61% of male fifth graders met or exceeded expectations compared to 66% of female students. In eighth grade, 71% of male fifth graders met or exceeded expectations compared to 68% of female students. At our high schools, a slightly lower percentage of females (75%) scored meeting or exceeding compared to males (80%) on the grade 9 Physics test.

Organization of graphs grades 3 - 8:

The following graphs are included for each subgroup and subject:

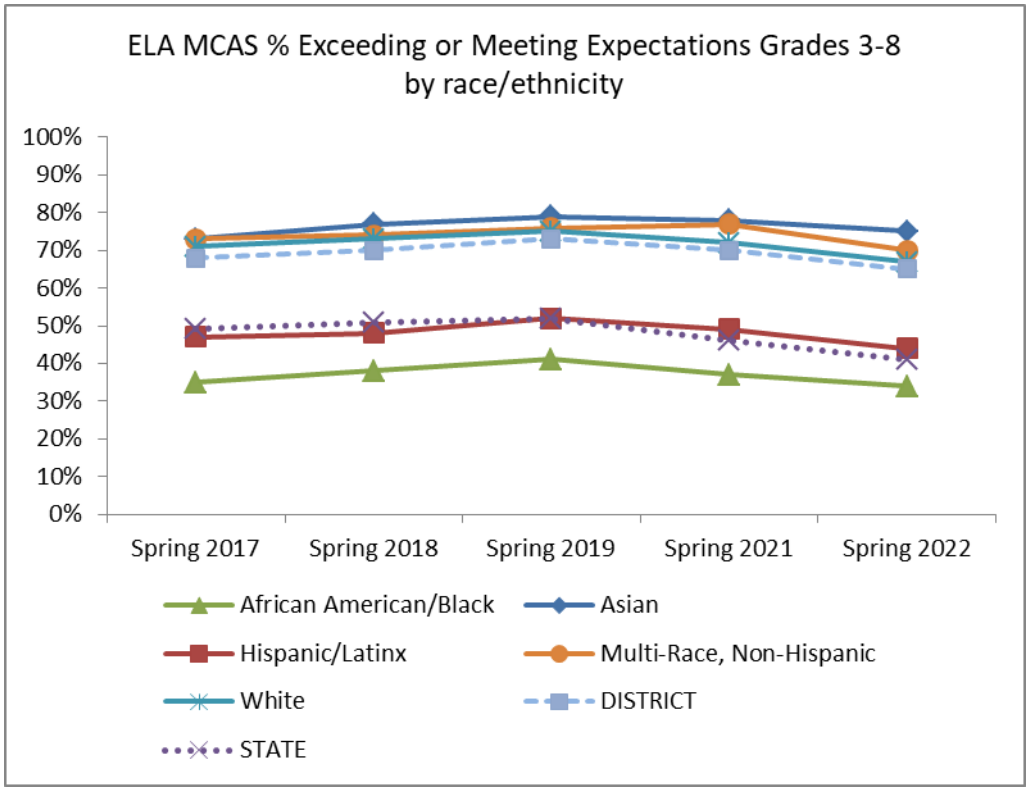
- 5 year trends for ELA and math
    - Percentage meeting or exceeding expectations
    - Average scaled score
- 3 year trends for STE
    - Percentage meeting or exceeding expectations
    - Average scaled score

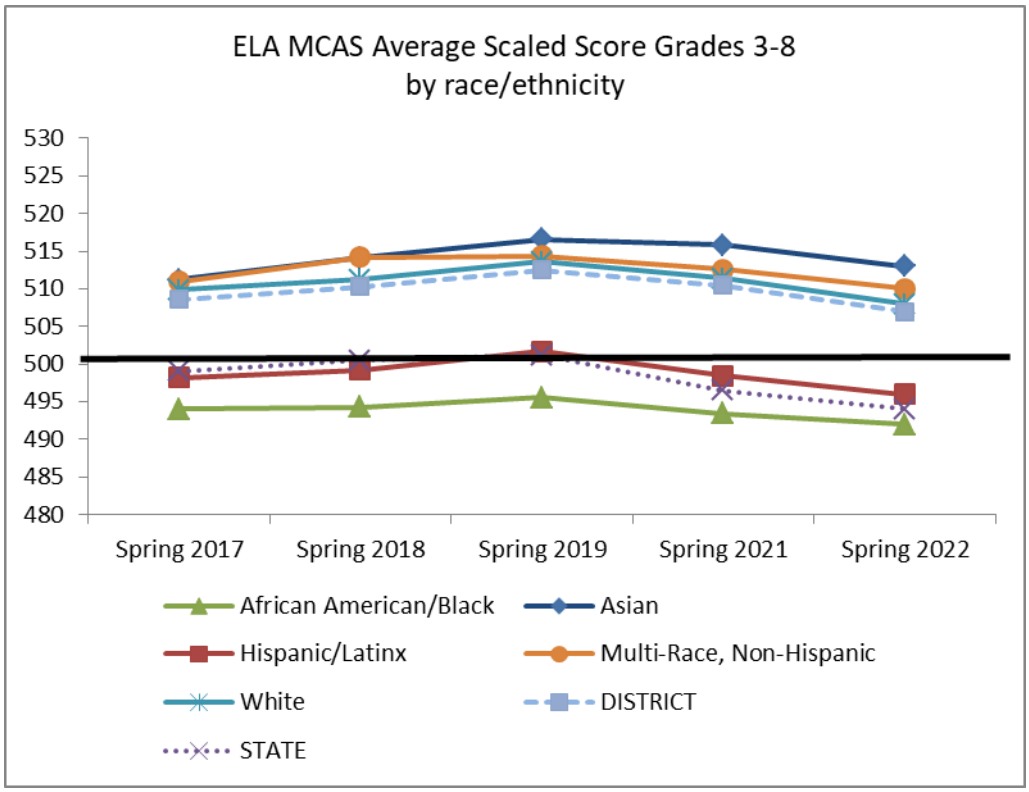
Organization of Graphs High School:

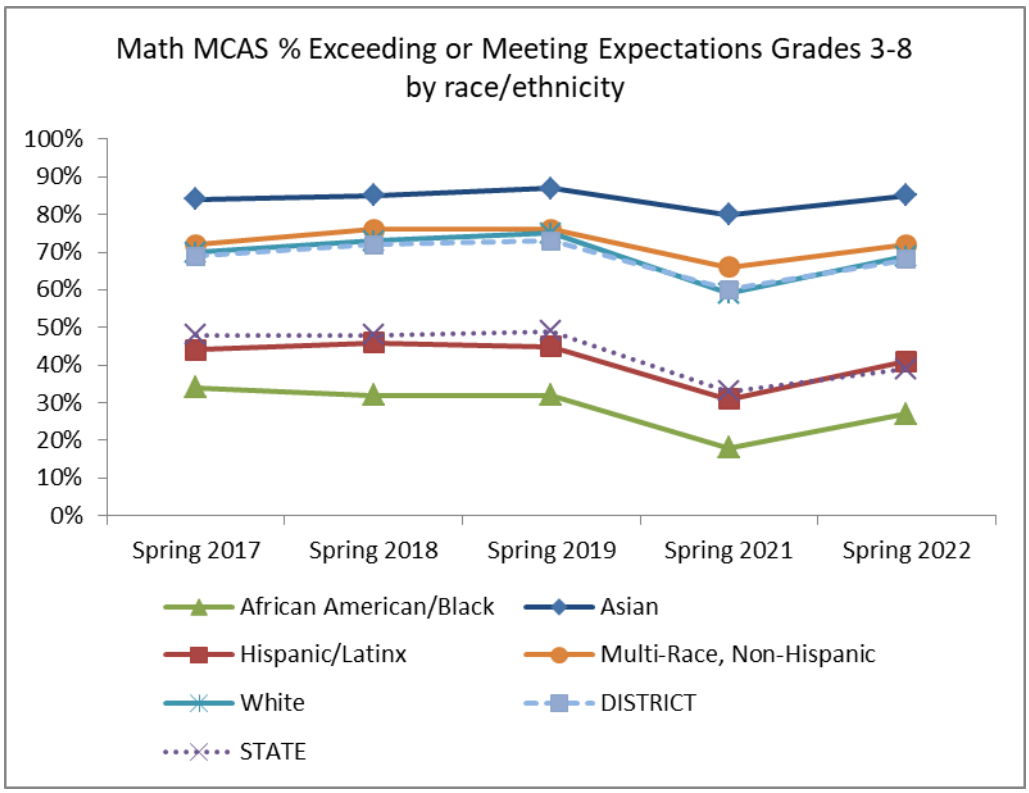
The following graphs are included for each subgroup and subject:

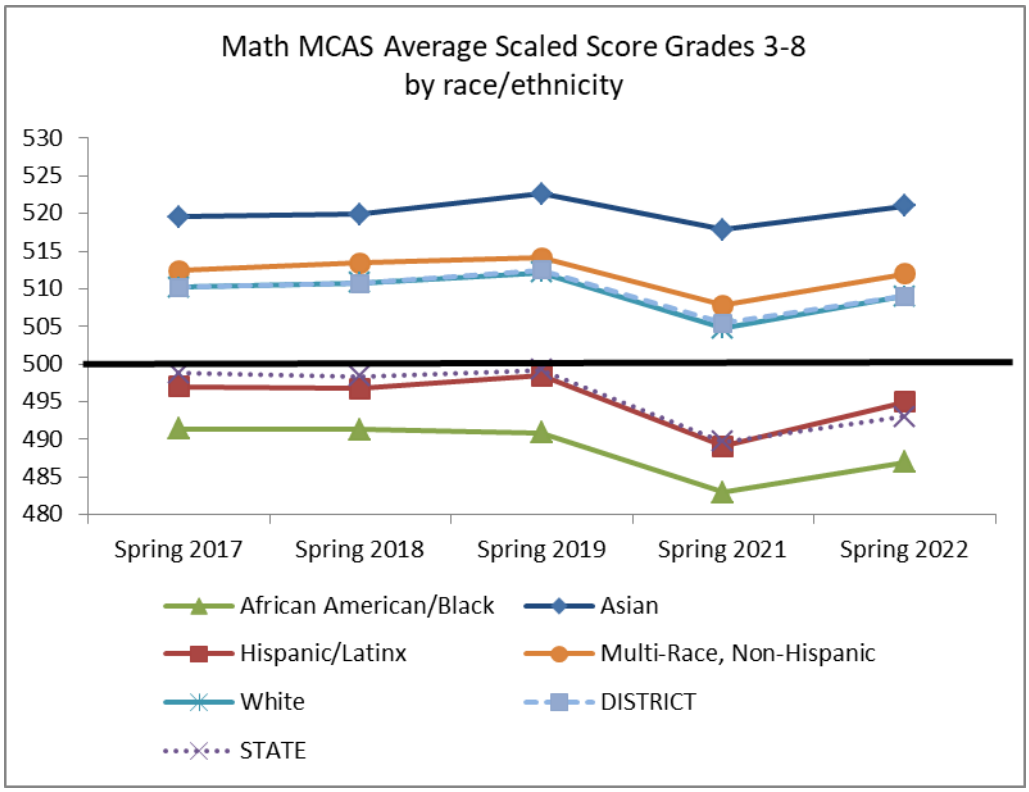
- 3 year trends for ELA and math
    - Percentage meeting or exceeding expectations
    - Average scaled score
- 1 year data for Physics
    - Percentage meeting or exceeding expectations (average scaled scores for subgroups are indicated in parentheses next to the subgroup in the graph, as this is the first year of the Next-Gen Physics)

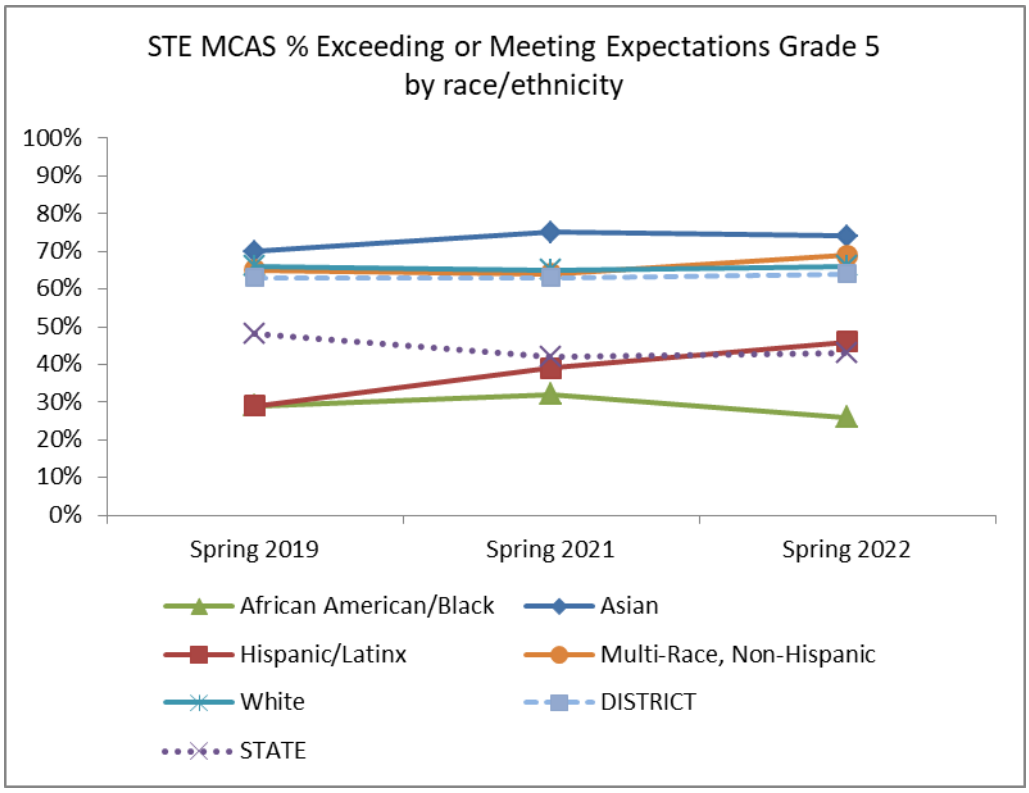
Grades 3 – 8: Race/Ethnicity

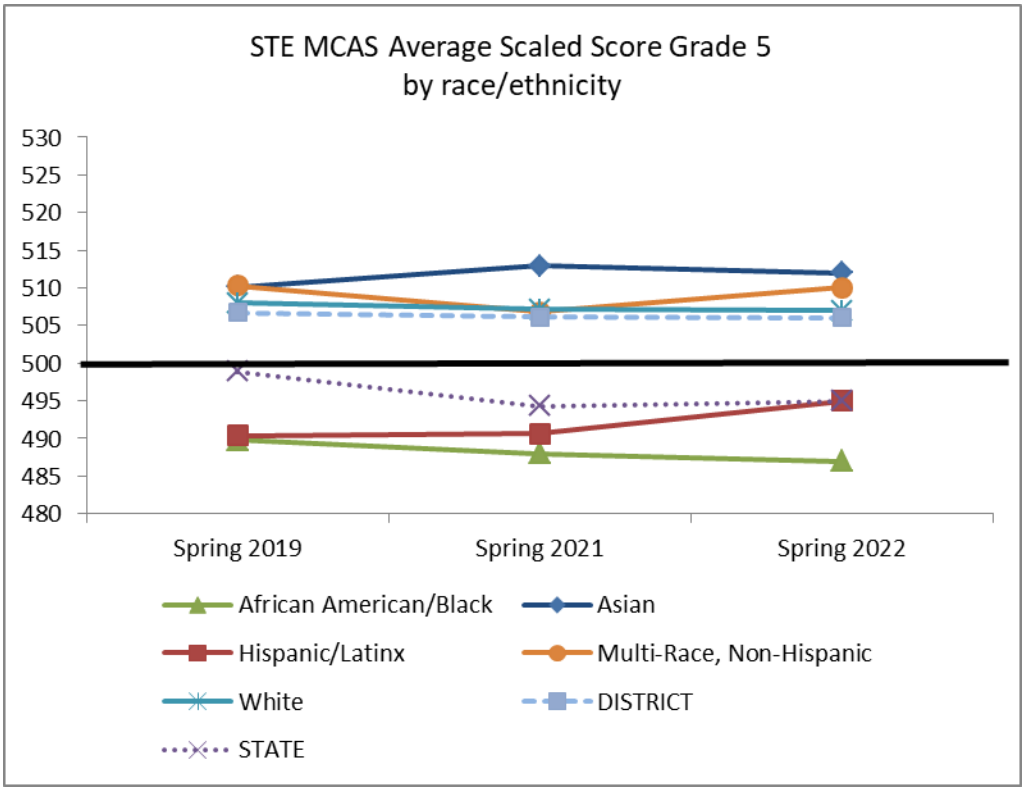





Math MCAS % Exceeding or Meeting Expectations Grades 3-8
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
DISTRICT
STATE


Math MCAS Average Scaled Score Grades 3-8
by race/ethnicity
530
525
520
515
510
505
500
495
490
485
480
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
DISTRICT
STATE


STE MCAS % Exceeding or Meeting Expectations Grade 5
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
DISTRICT
STATE


STE MCAS Average Scaled Score Grade 5
by race/ethnicity
530
525
520
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490
485
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Spring 2019
Spring 2021
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African American/Black
Asian
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DISTRICT
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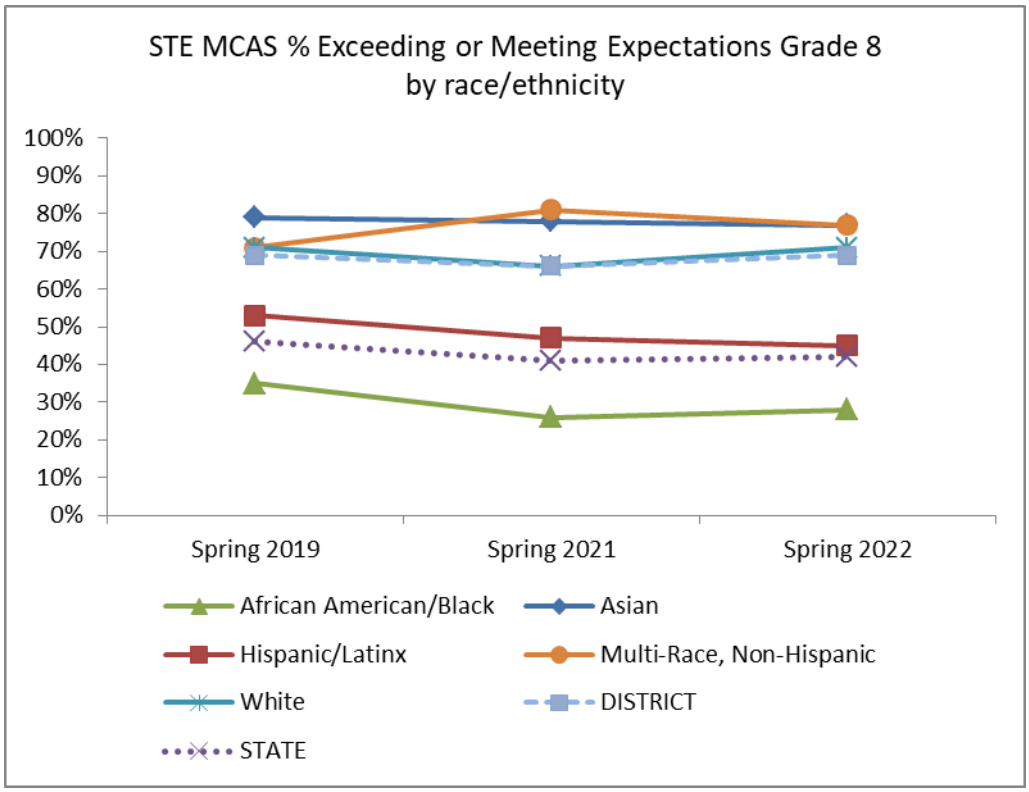
STE MCAS % Exceeding or Meeting Expectations Grade 8
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
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Multi-Race, Non-Hispanic
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DISTRICT
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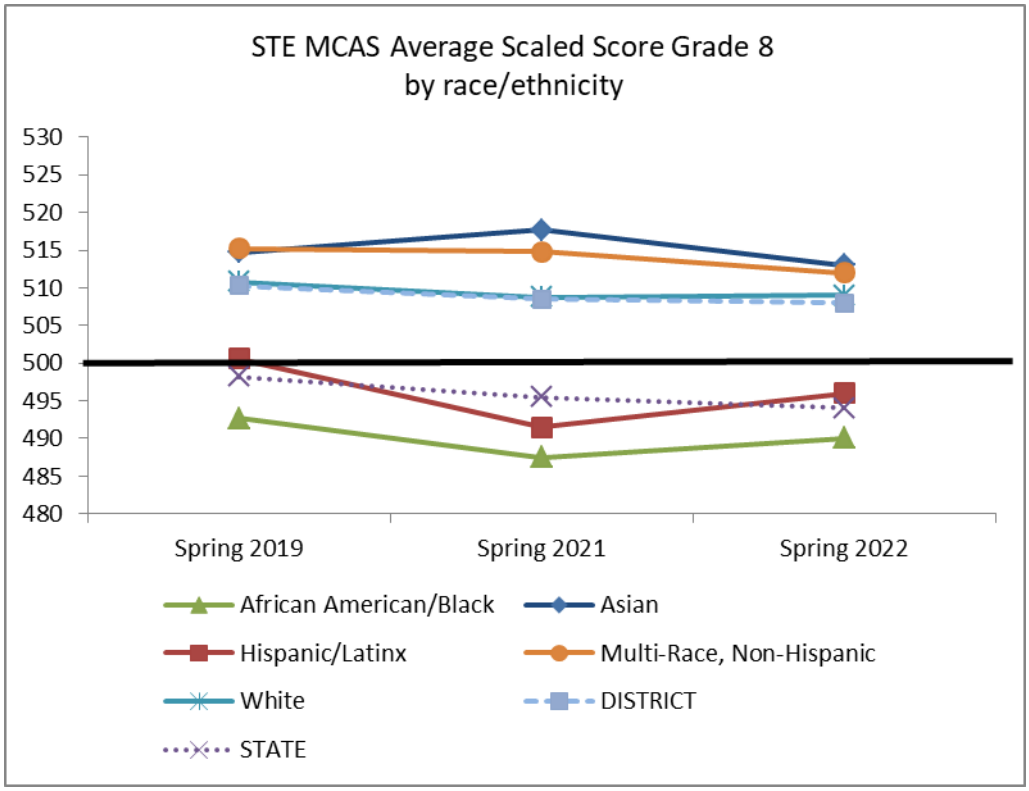
STE MCAS Average Scaled Score Grade 8
by race/ethnicity
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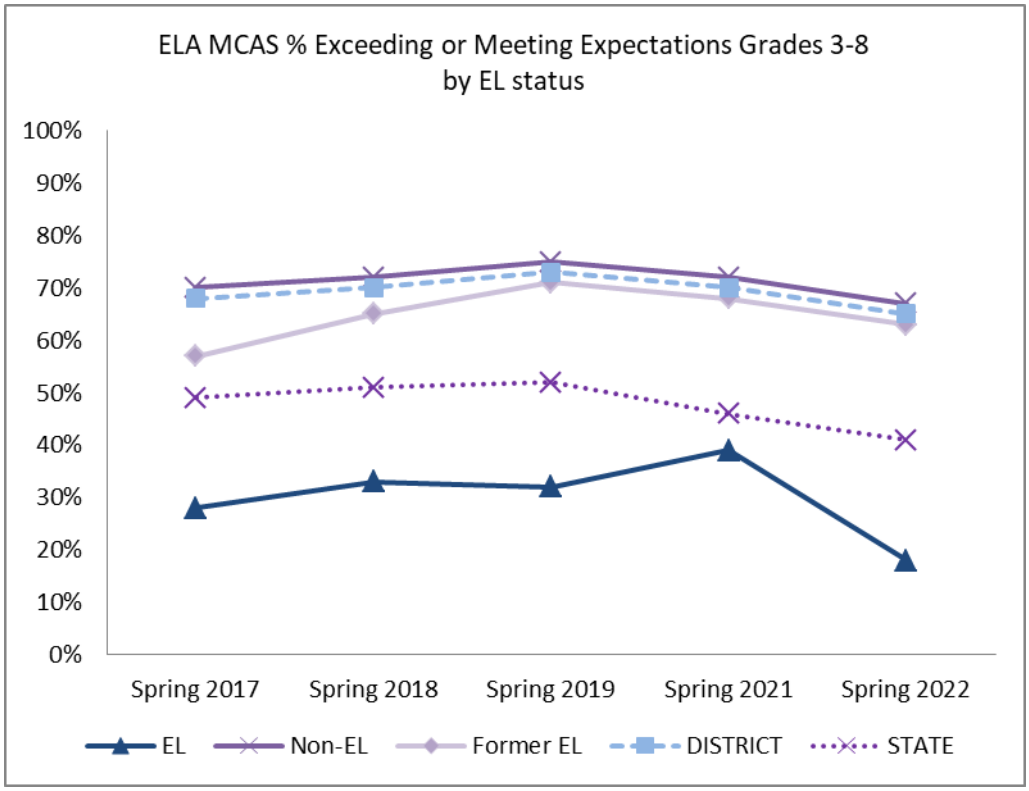
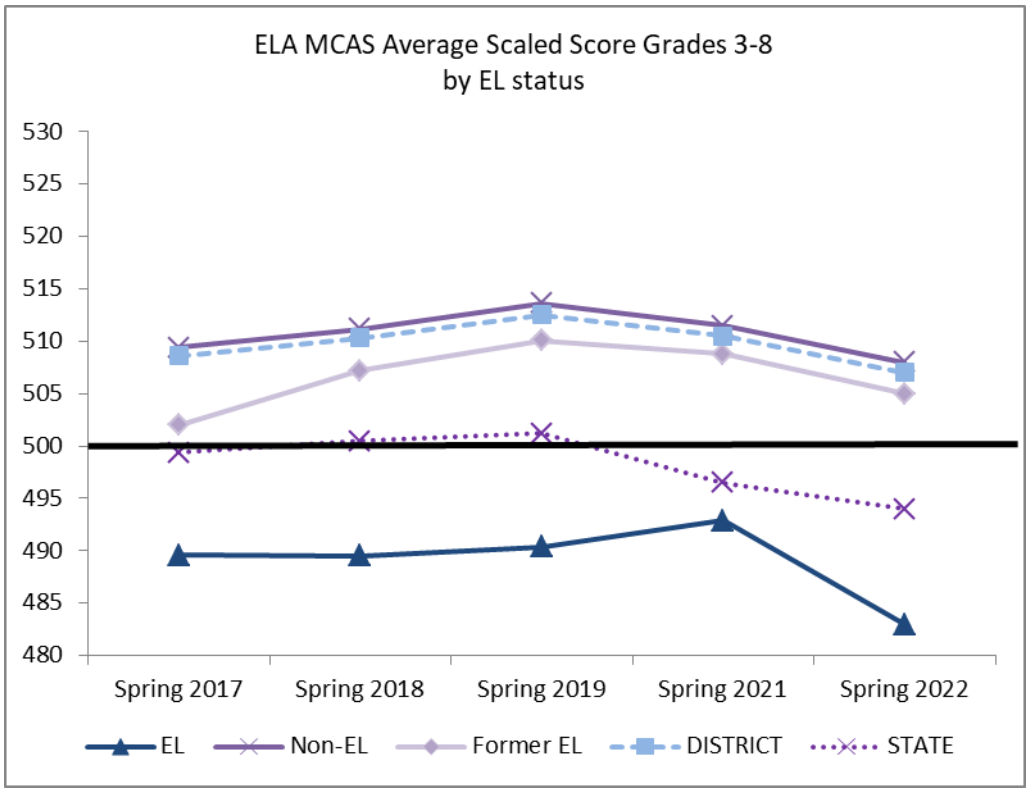
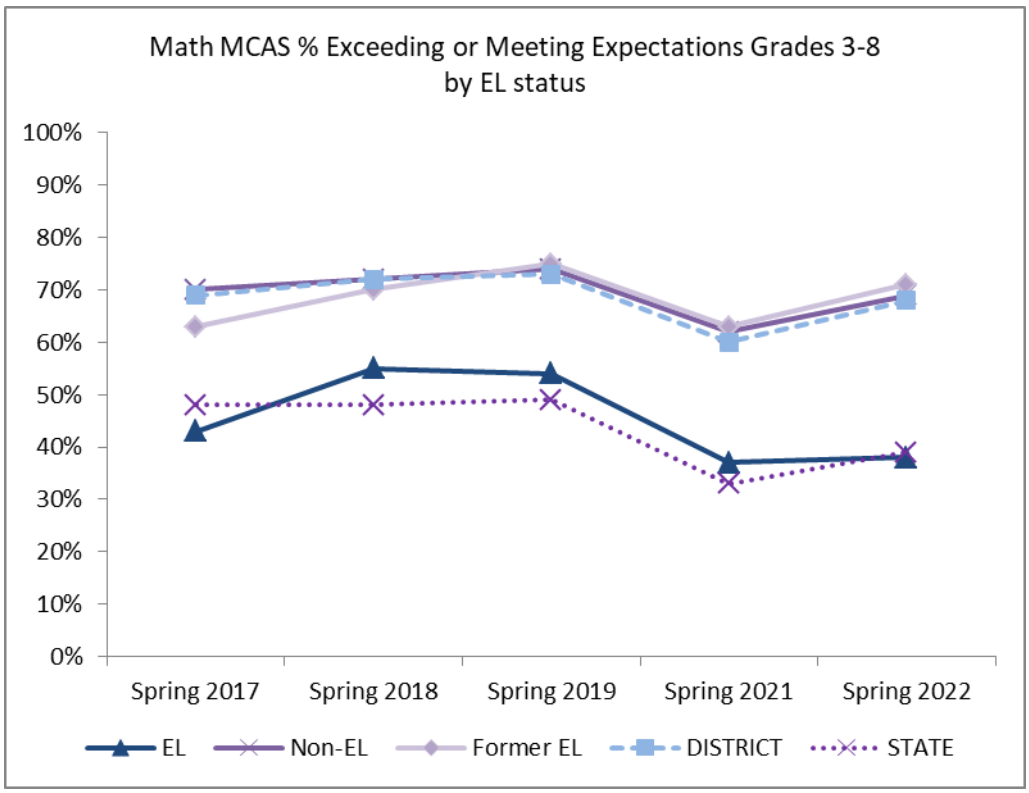
Grades 3 – 8: English Learner Status






Math MCAS % Exceeding or Meeting Expectations Grades 3-8
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Spring 2022
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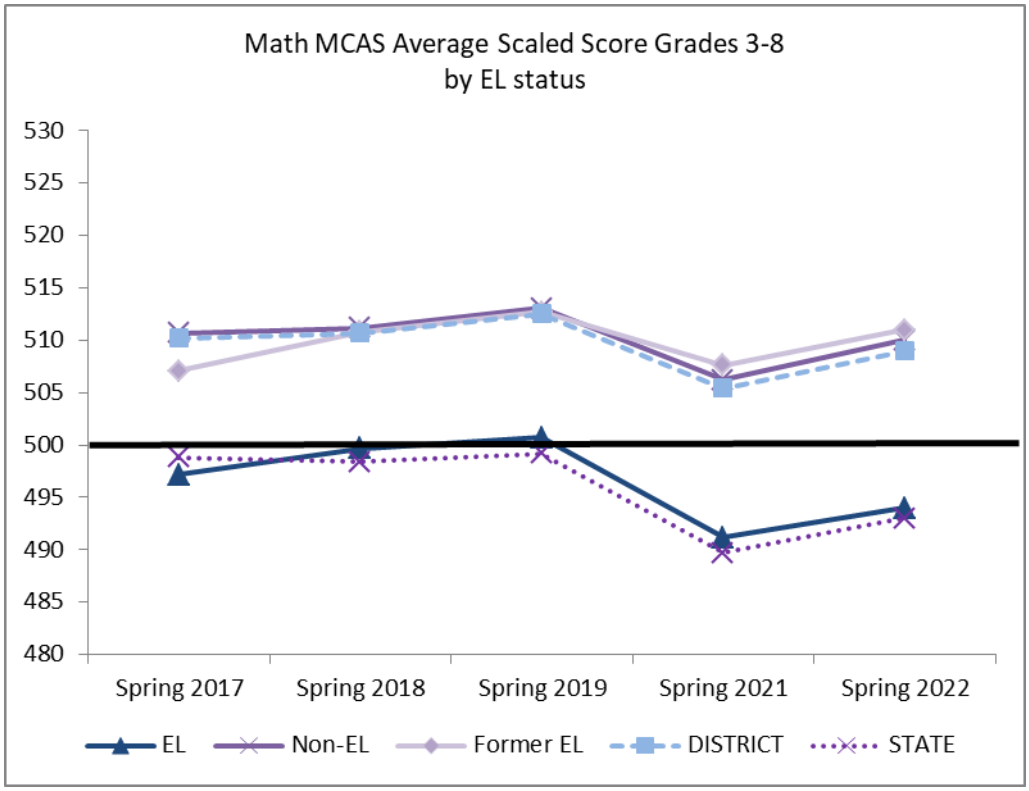
Non-EL
Former EL
DISTRICT
STATE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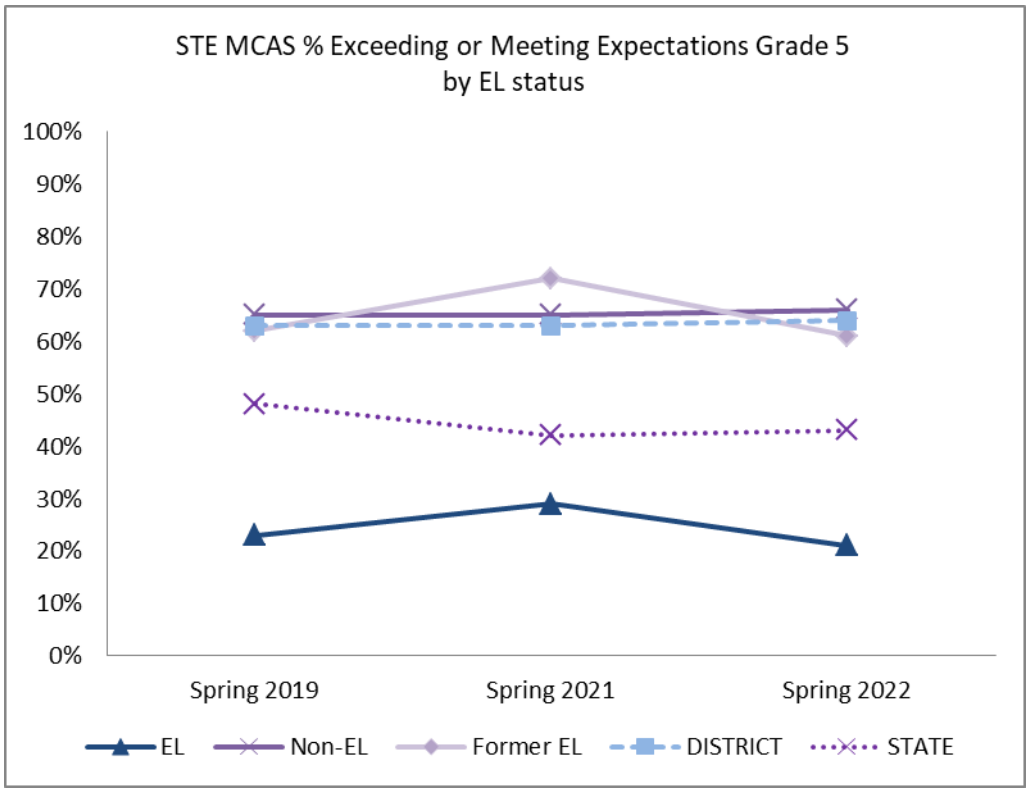
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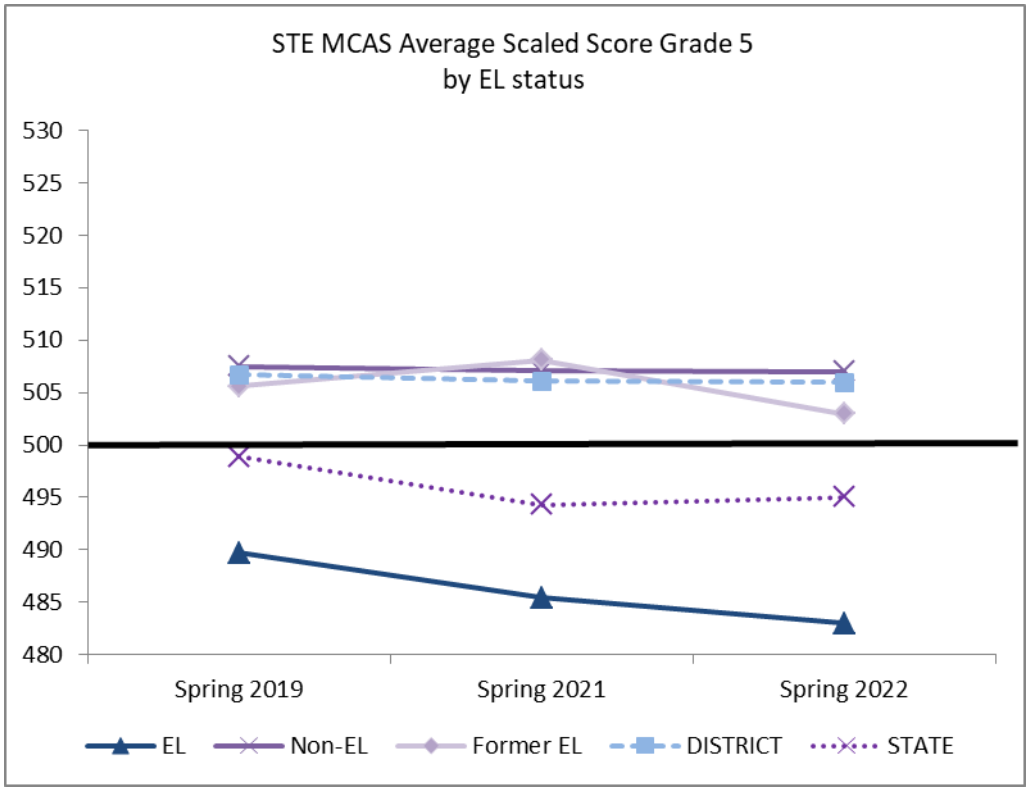
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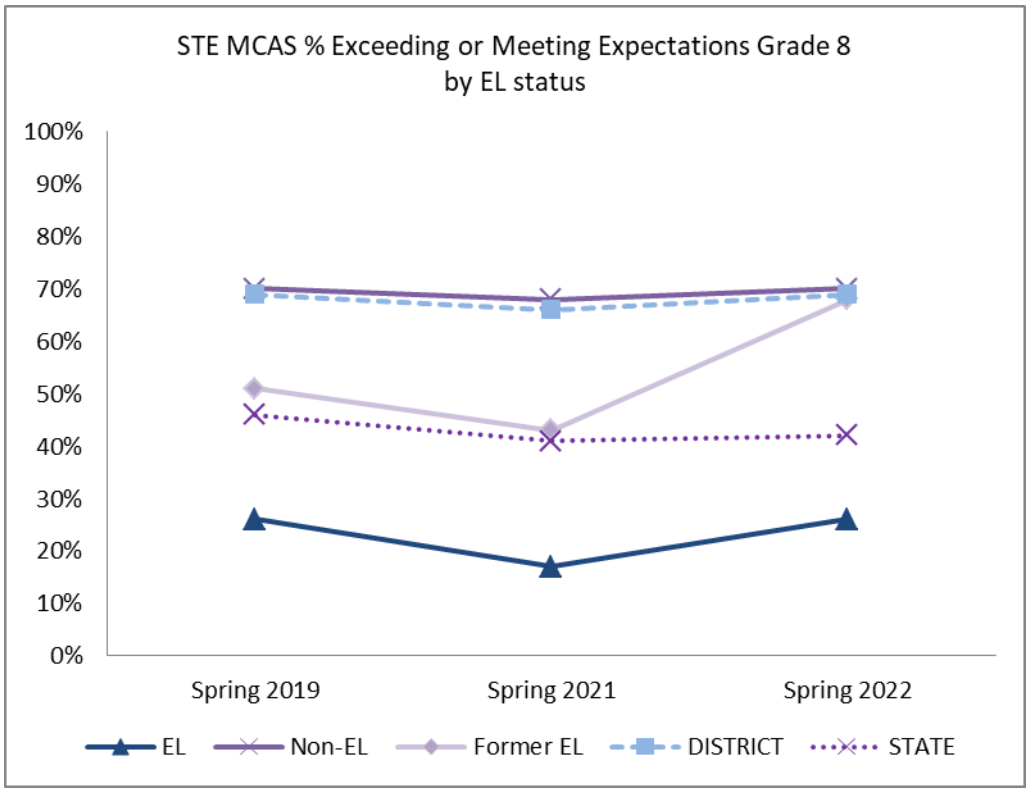
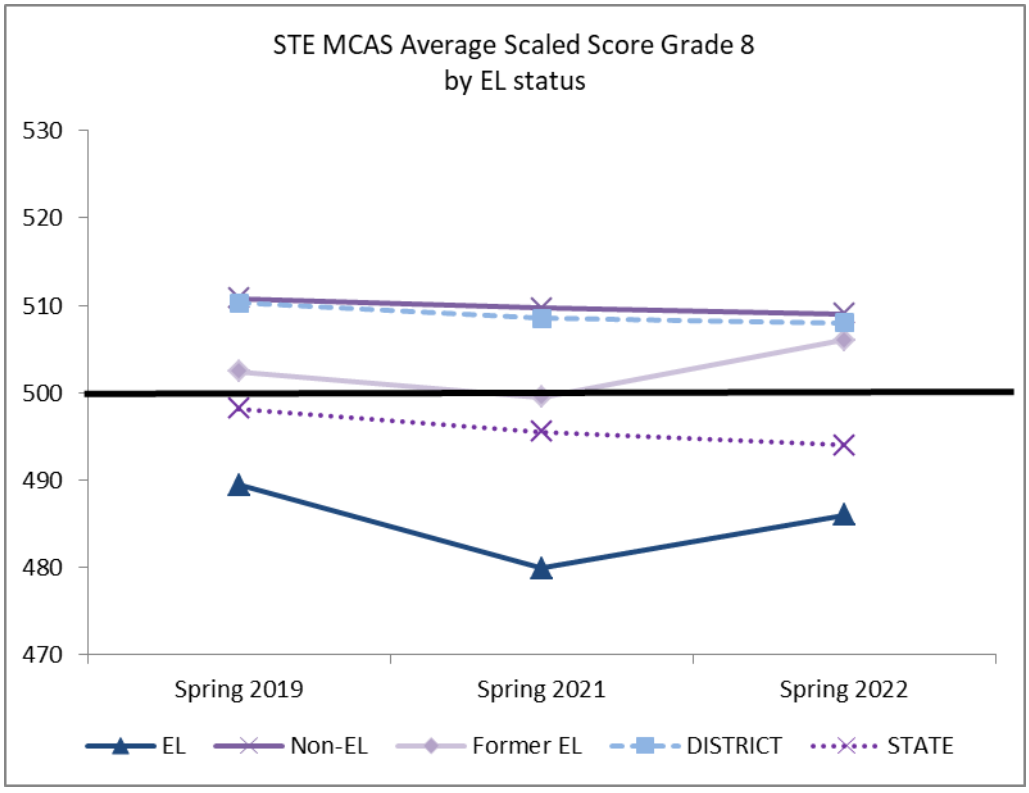
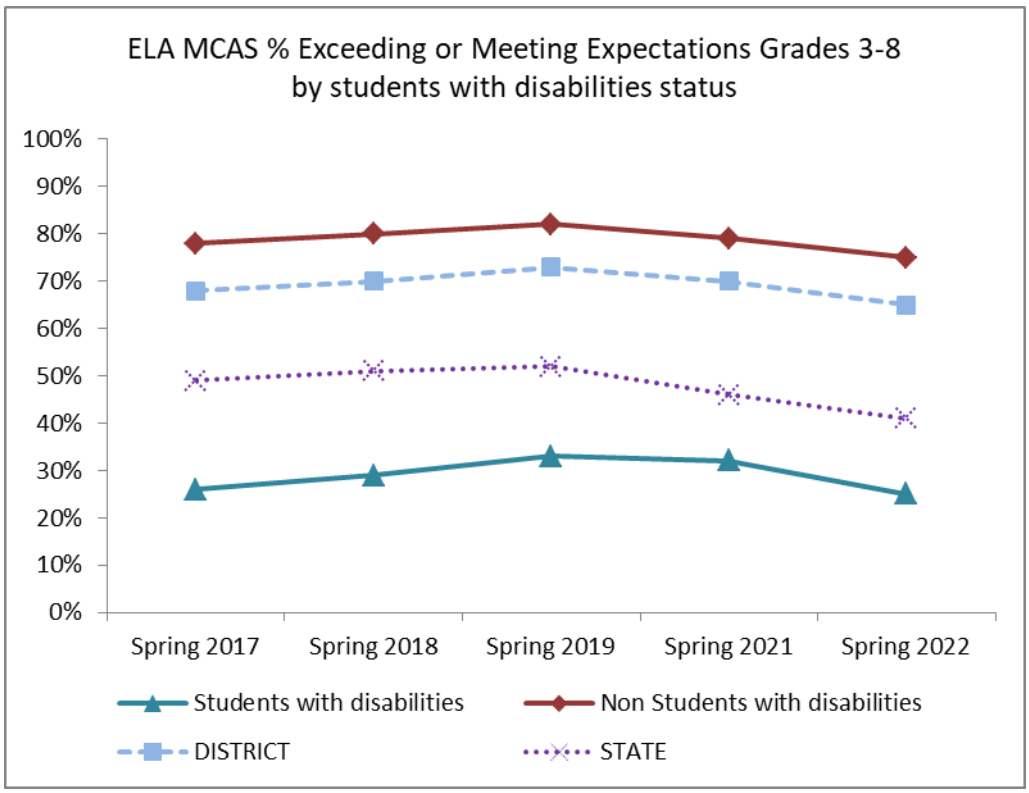
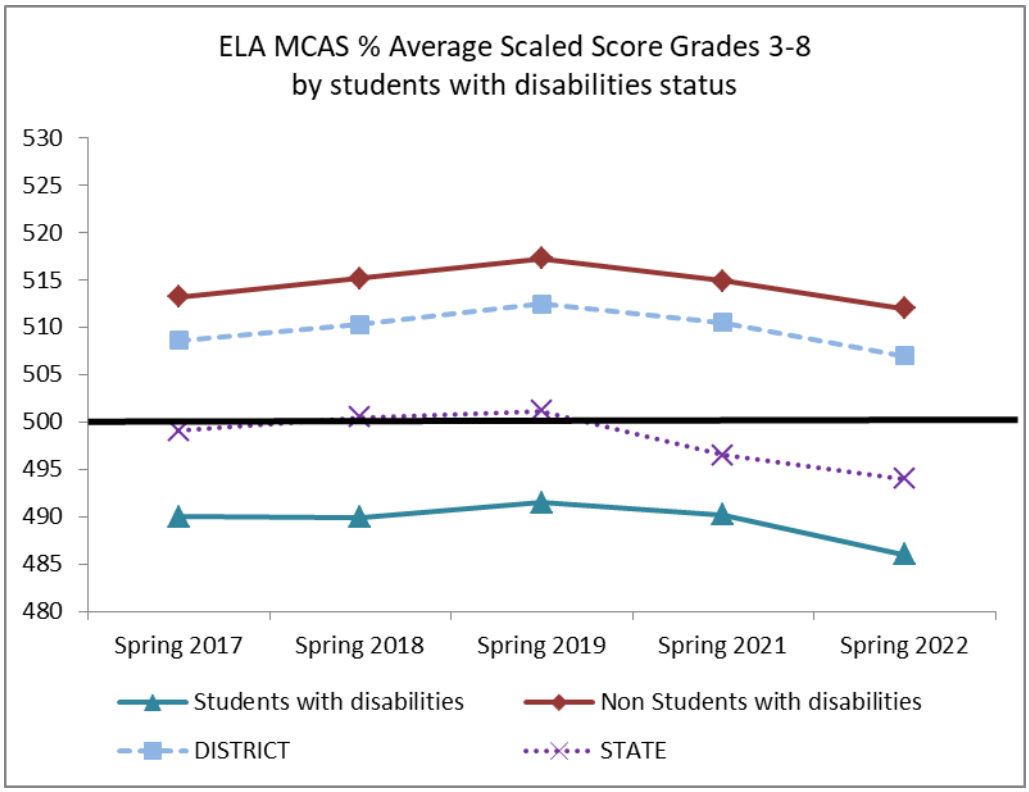
DISTRICT
STATE

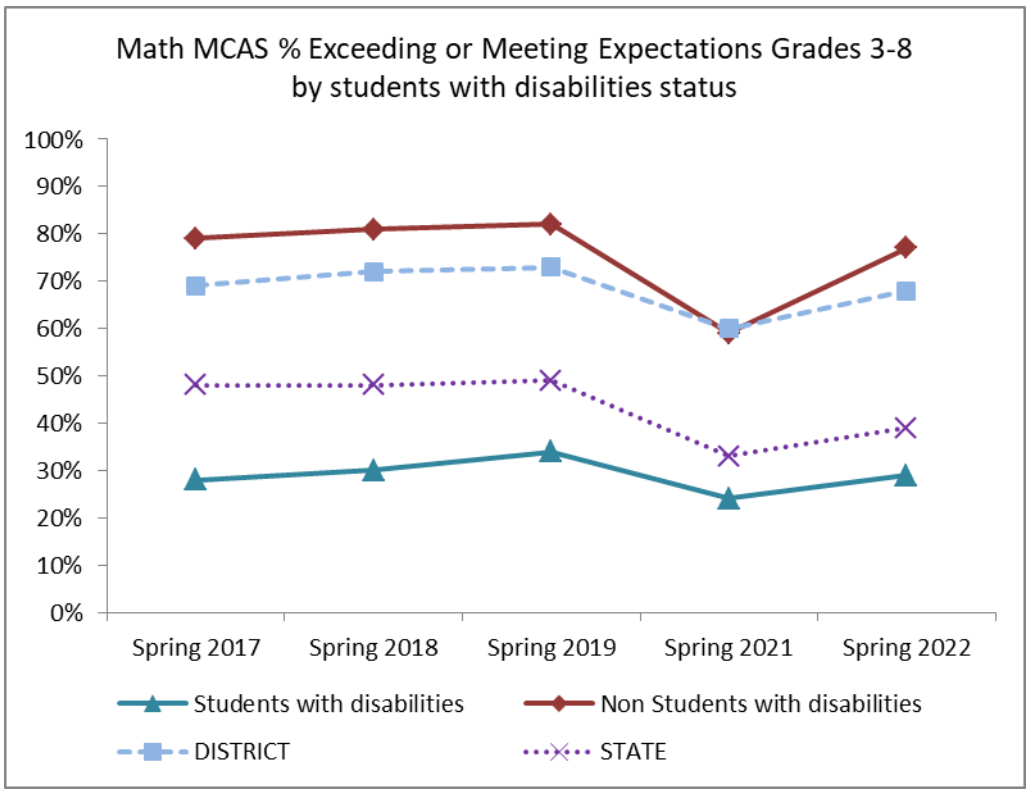

STE MCAS % Exceeding or Meeting Expectations Grade 8
by EL status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
EL
Non-EL
Former EL
DISTRICT
STATE

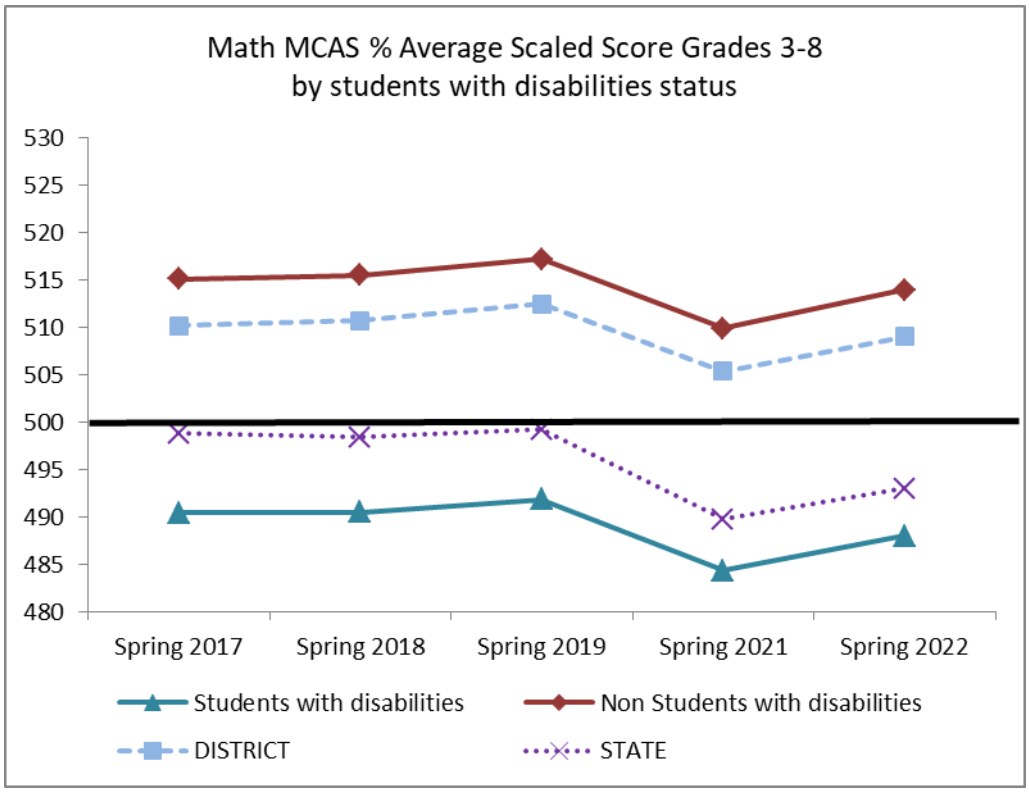

STE MCAS Average Scaled Score Grade 8
by EL status
530
520
510
500
490
480
470
Spring 2019
Spring 2021
Spring 2022
EL
Non-EL
Former EL
DISTRICT
STATE

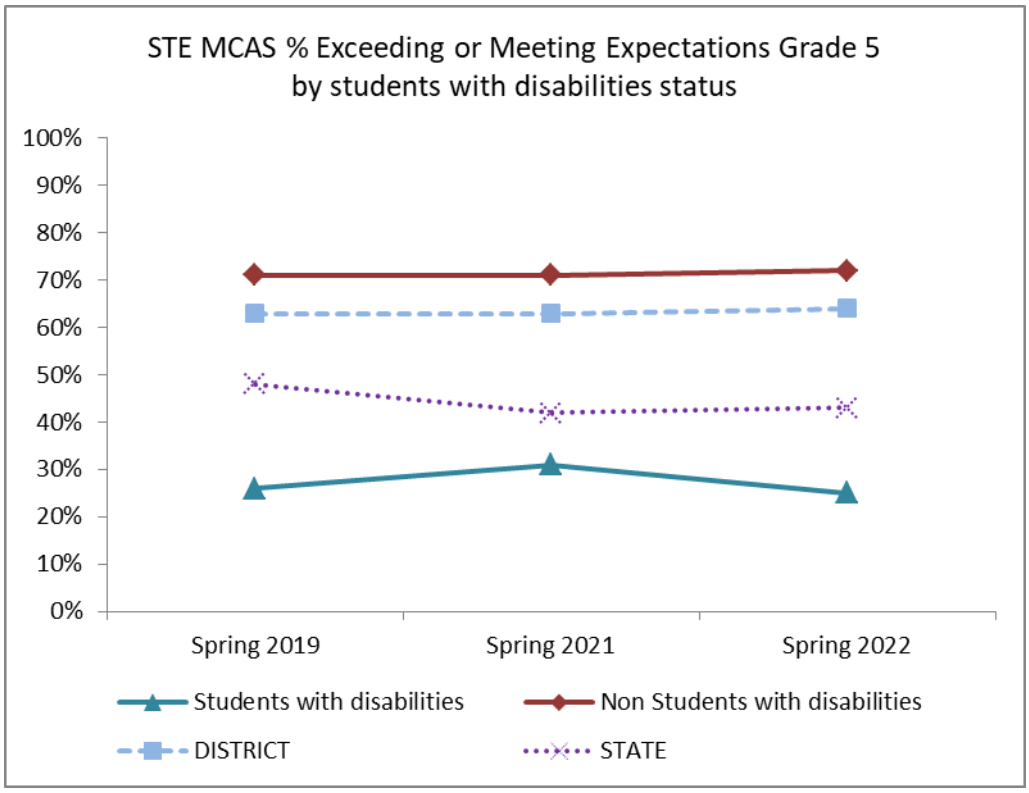
Grades 3 – 8: Students with Disabilities

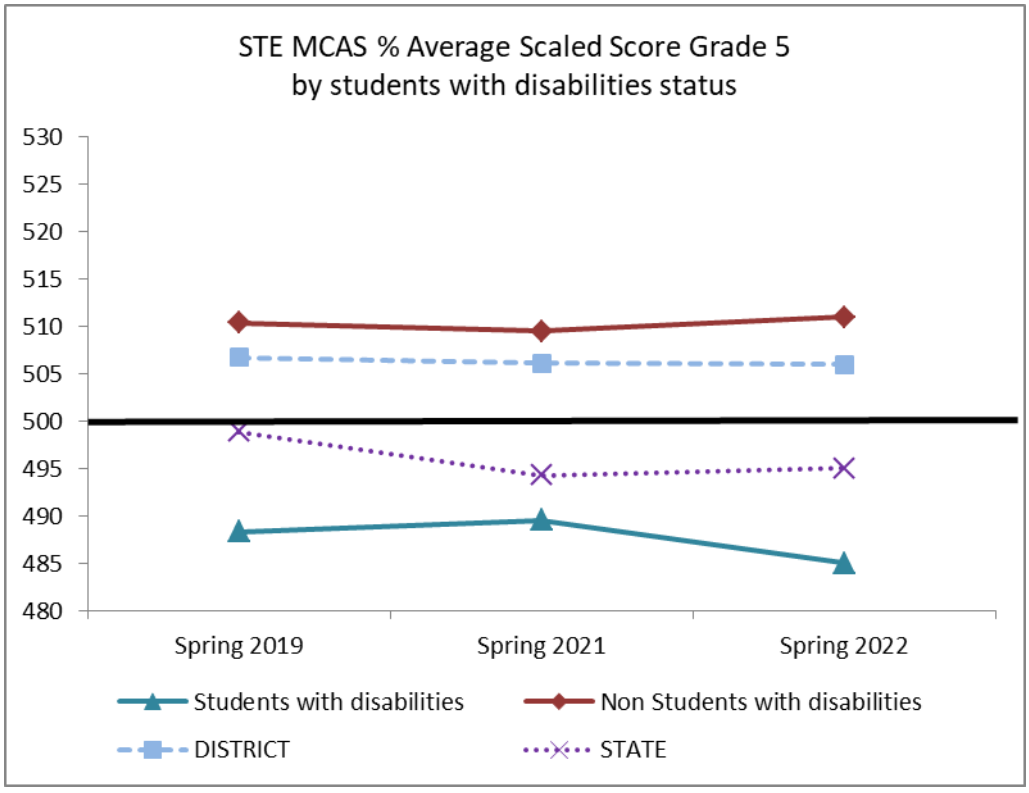


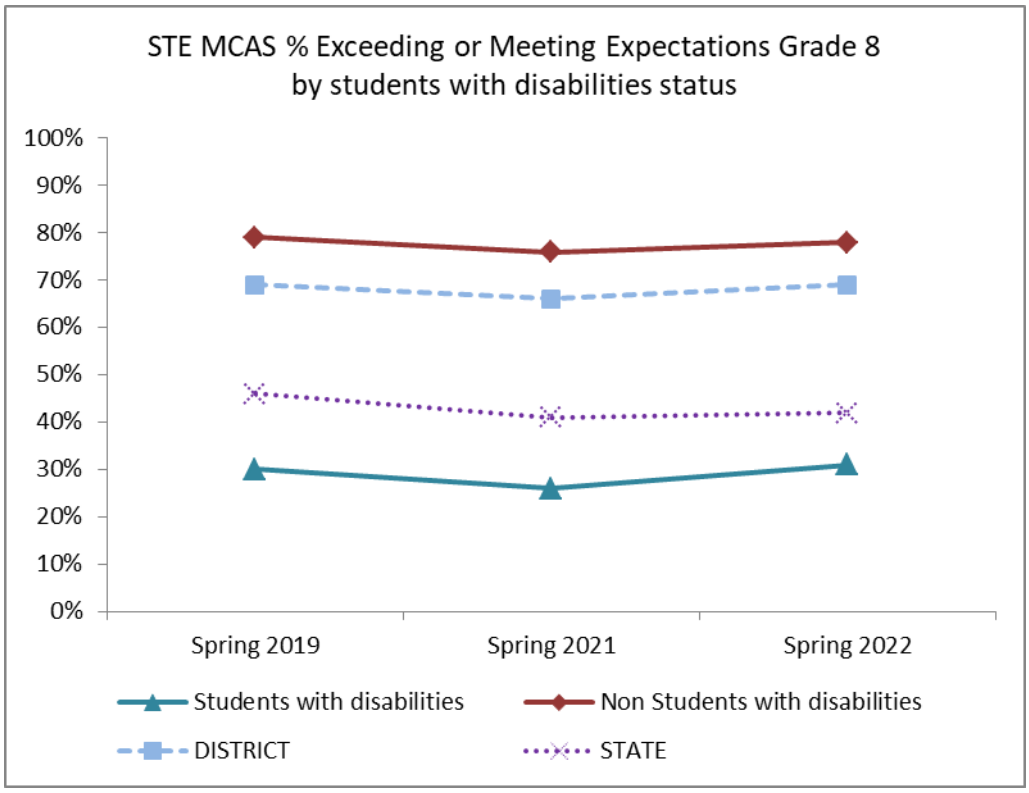


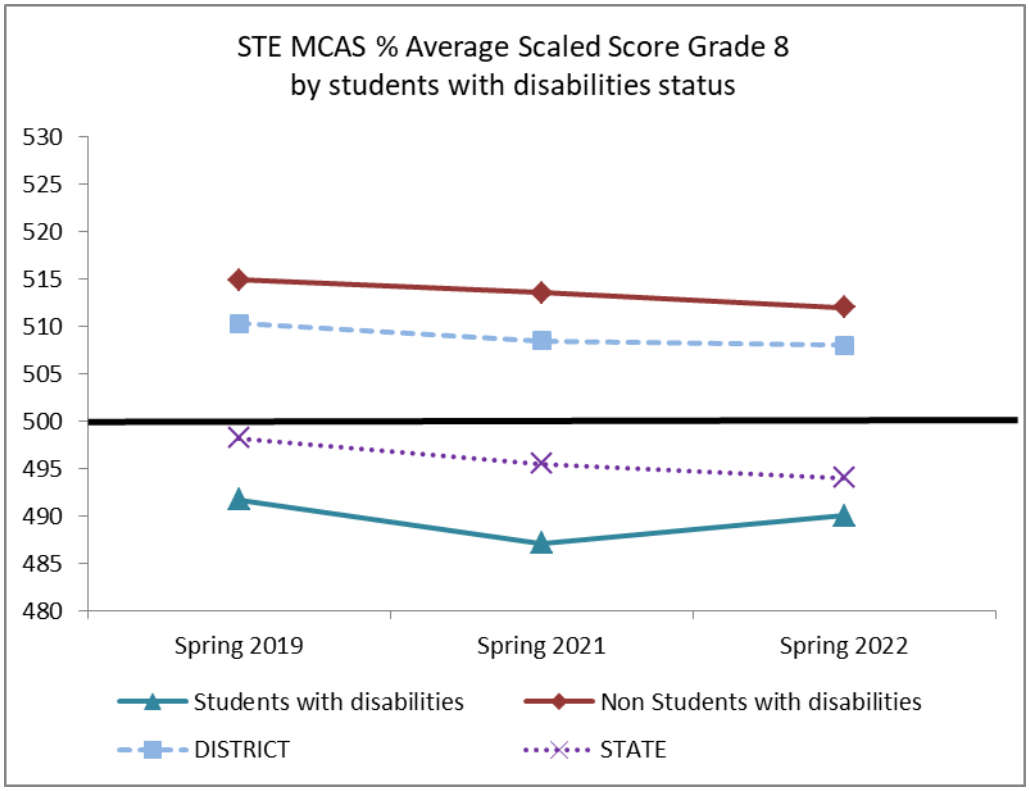

Math MCAS % Exceeding or Meeting Expectations Grades 3-8
by students with disabilities status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE


Math MCAS % Average Scaled Score Grades 3-8
by students with disabilities status
530
525
520
515
510
505
500
495
490
485
480
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

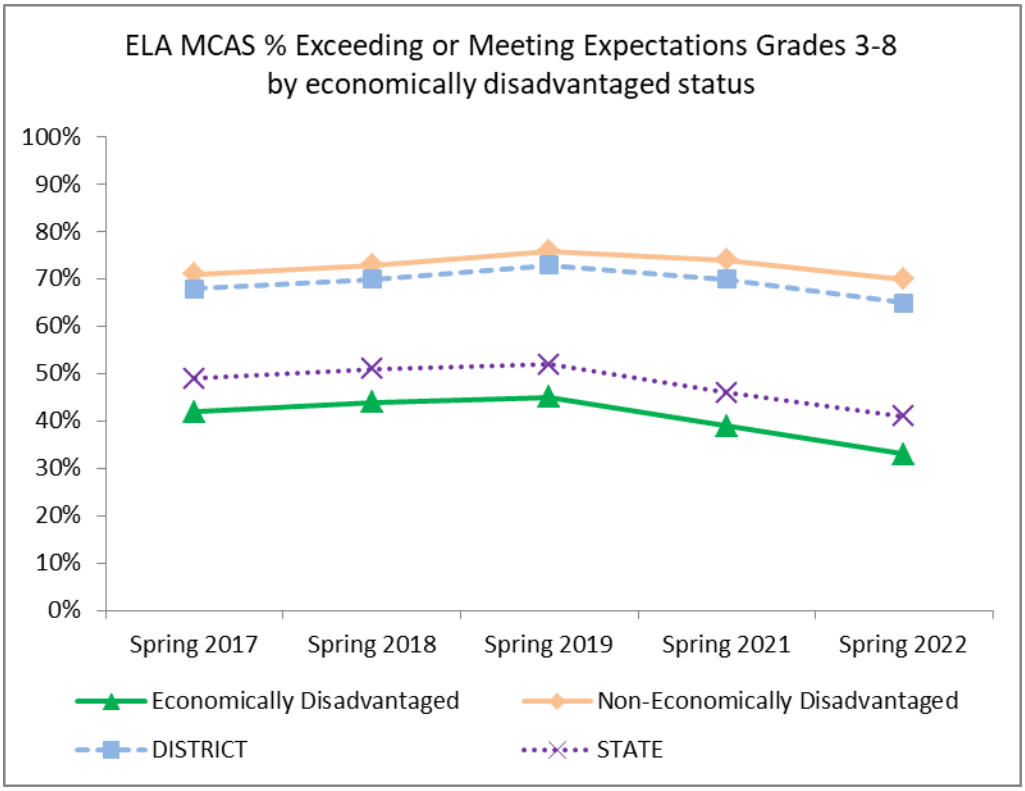

STE MCAS % Exceeding or Meeting Expectations Grade 5
by students with disabilities status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

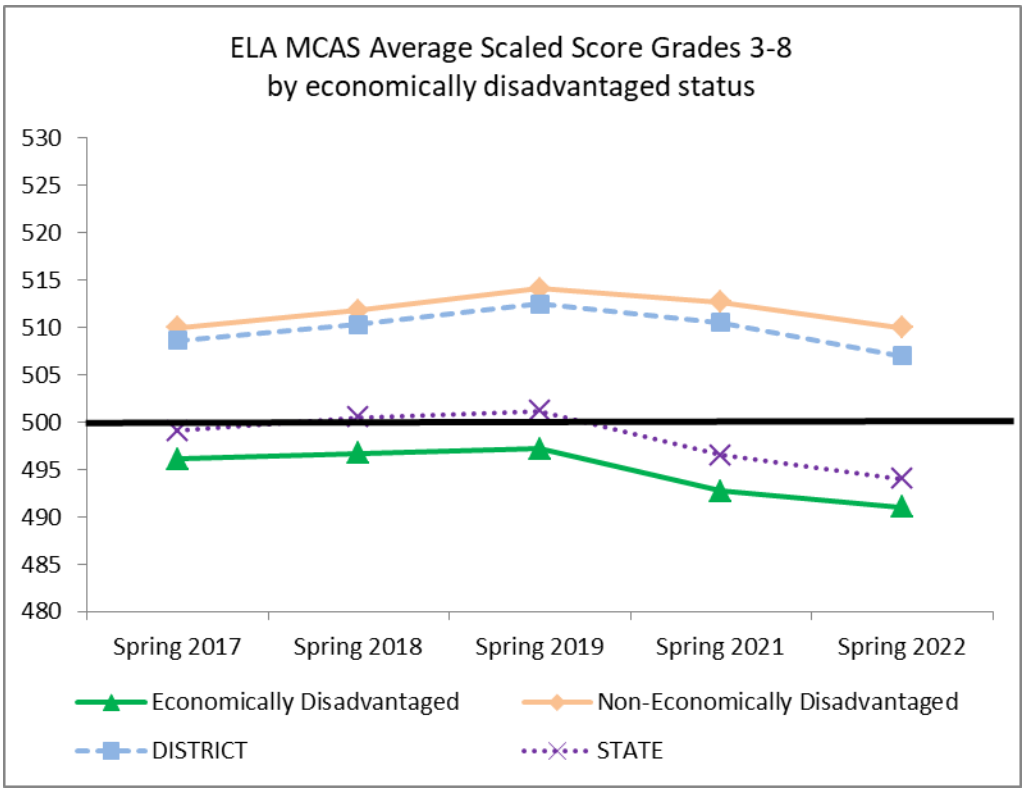

STE MCAS % Average Scaled Score Grade 5
by students with disabilities status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

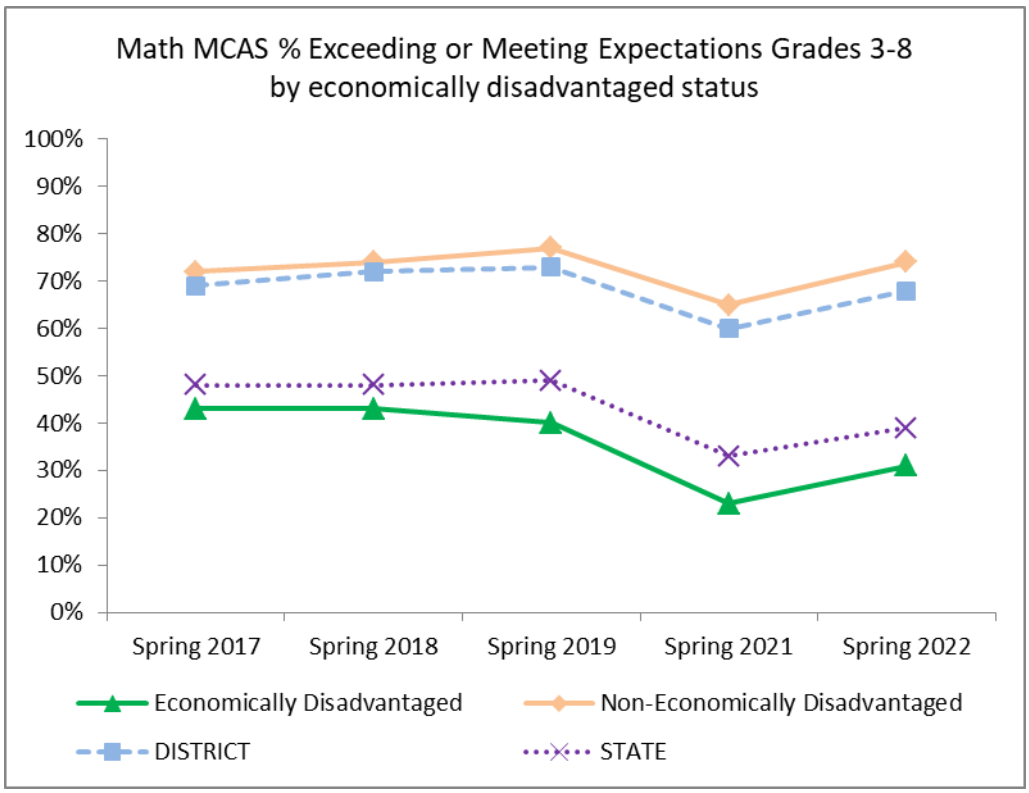

STE MCAS % Exceeding or Meeting Expectations Grade 8
by students with disabilities status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

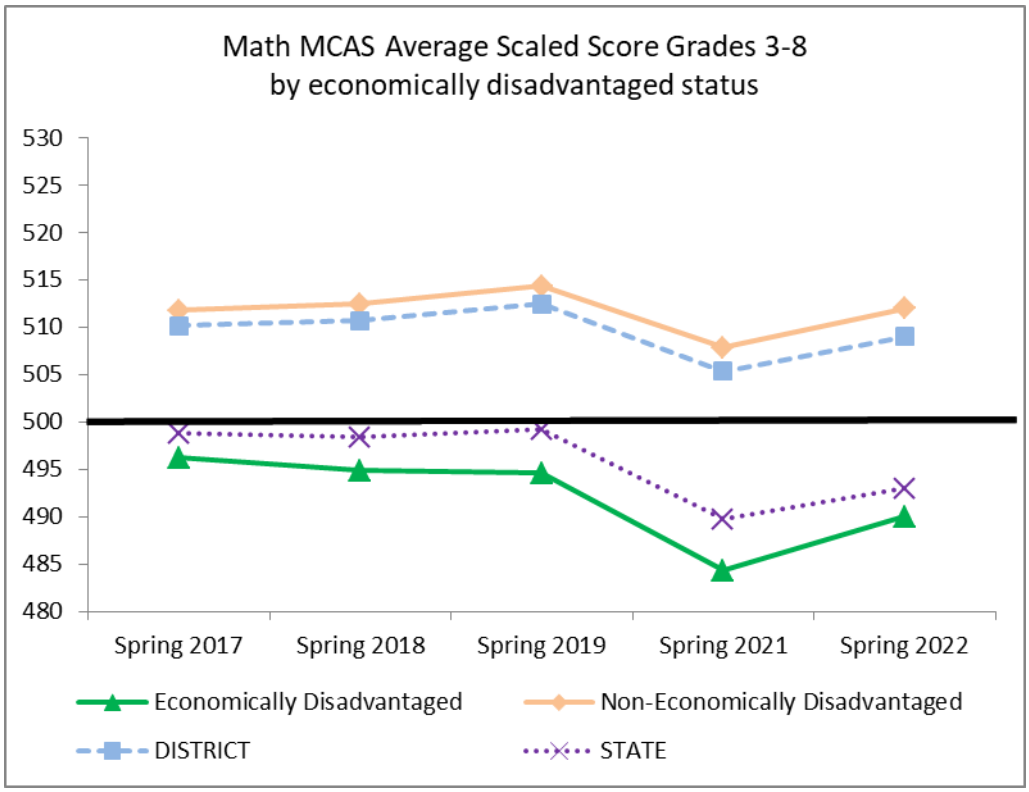

STE MCAS % Average Scaled Score Grade 8
by students with disabilities status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

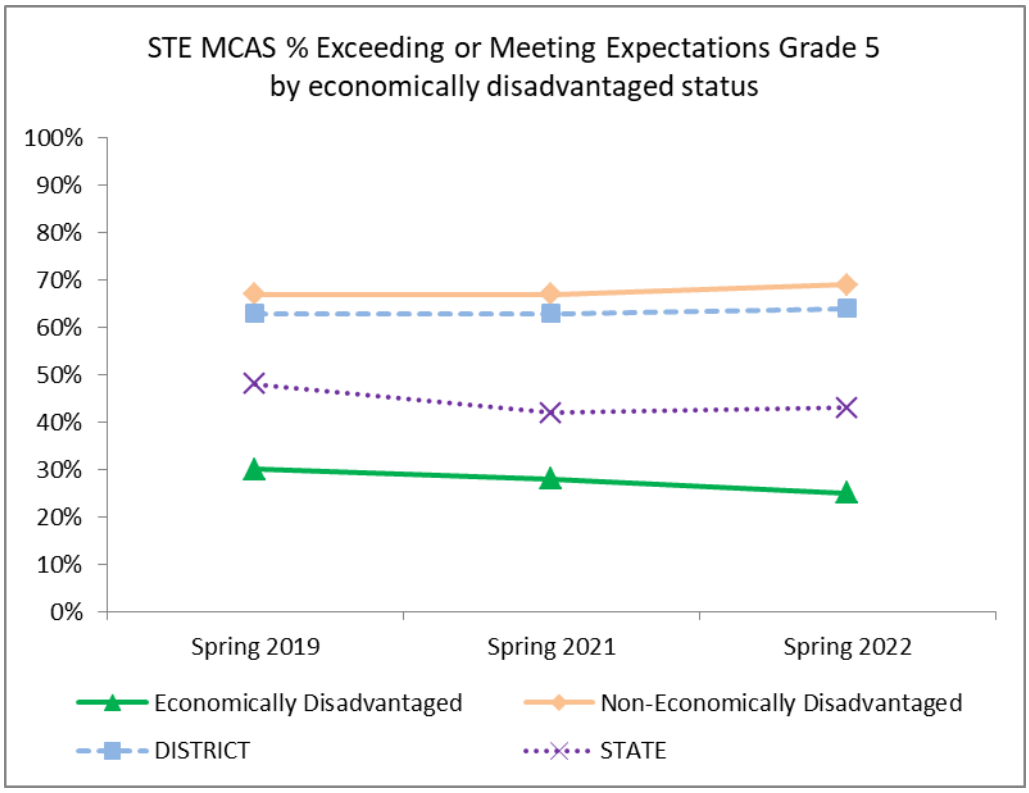
Grades 3 – 8: Economically Disadvantaged

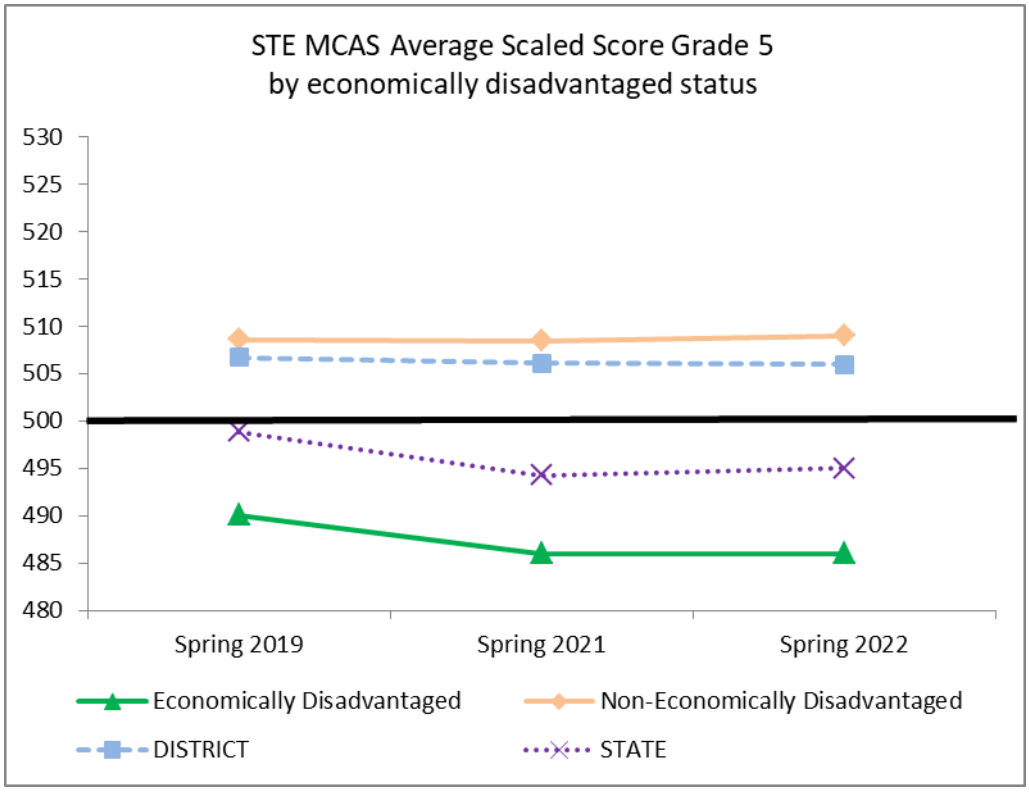


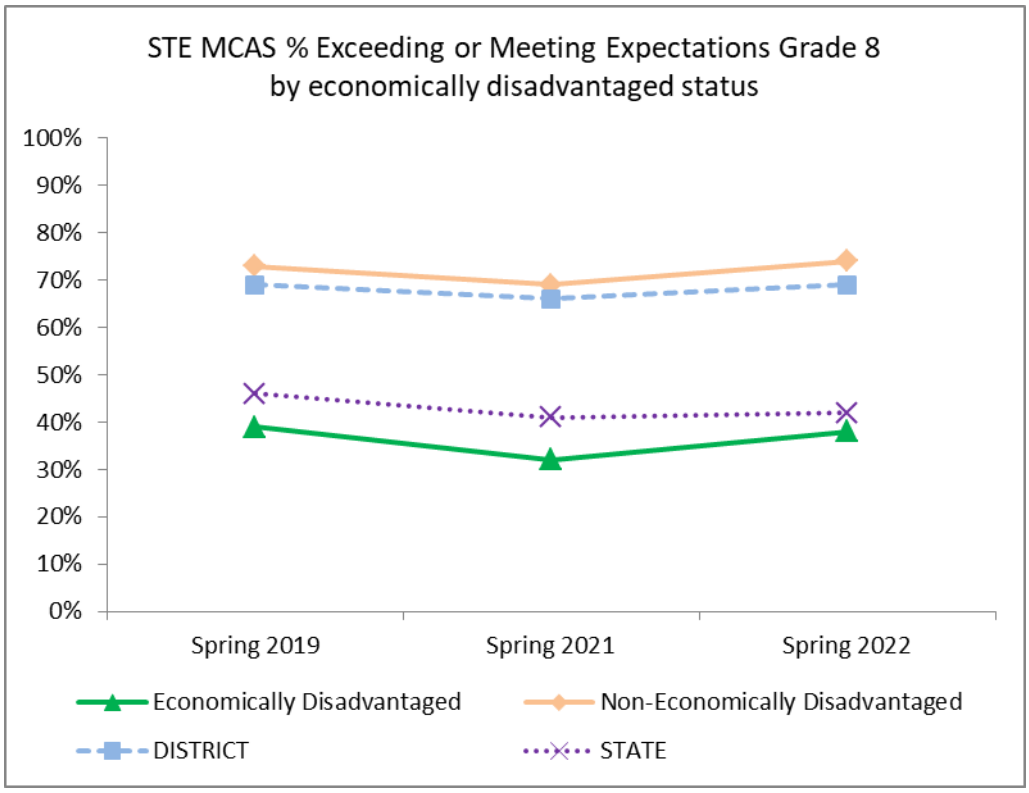


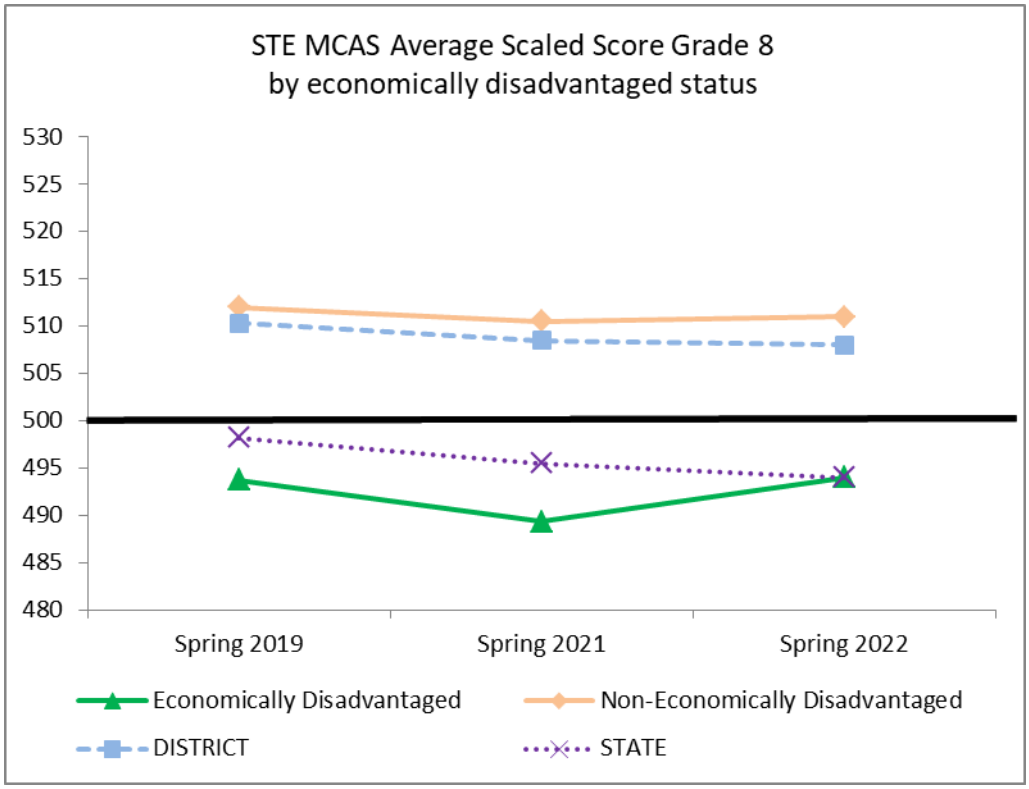

Math MCAS % Exceeding or Meeting Expectations Grades 3-8
by economically disadvantaged status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE


Math MCAS Average Scaled Score Grades 3-8
by economically disadvantaged status
530
525
520
515
510
505
500
495
490
485
480
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

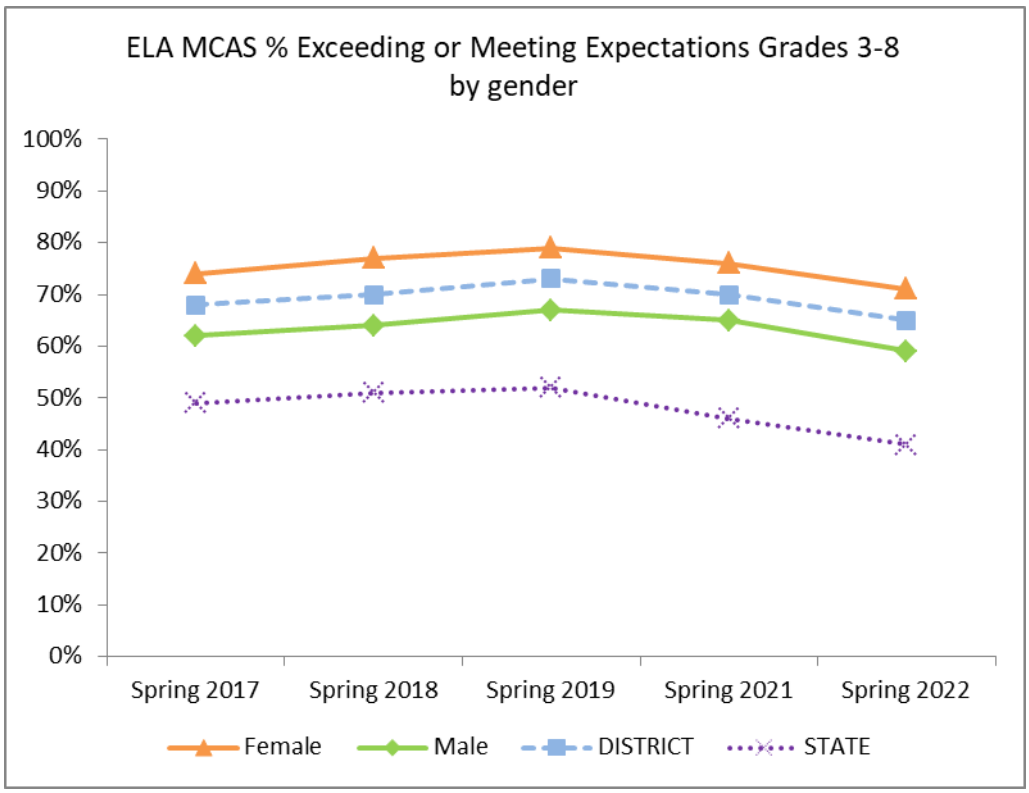

STE MCAS % Exceeding or Meeting Expectations Grade 5
by economically disadvantaged status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

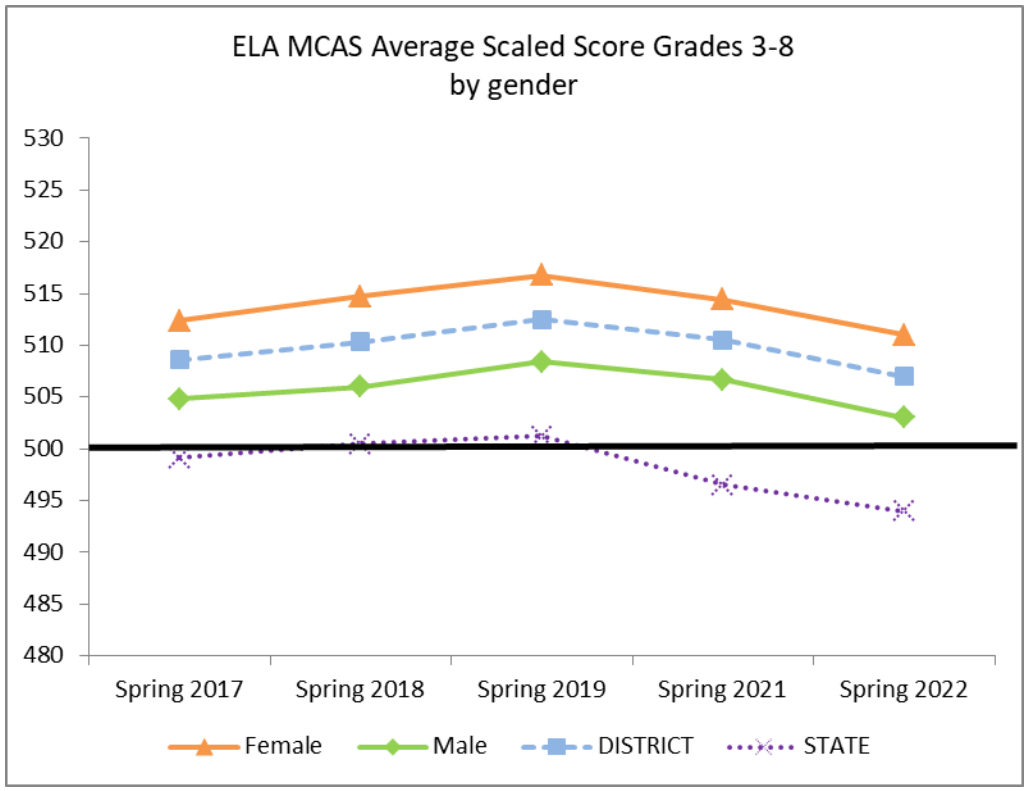

STE MCAS Average Scaled Score Grade 5
by economically disadvantaged status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

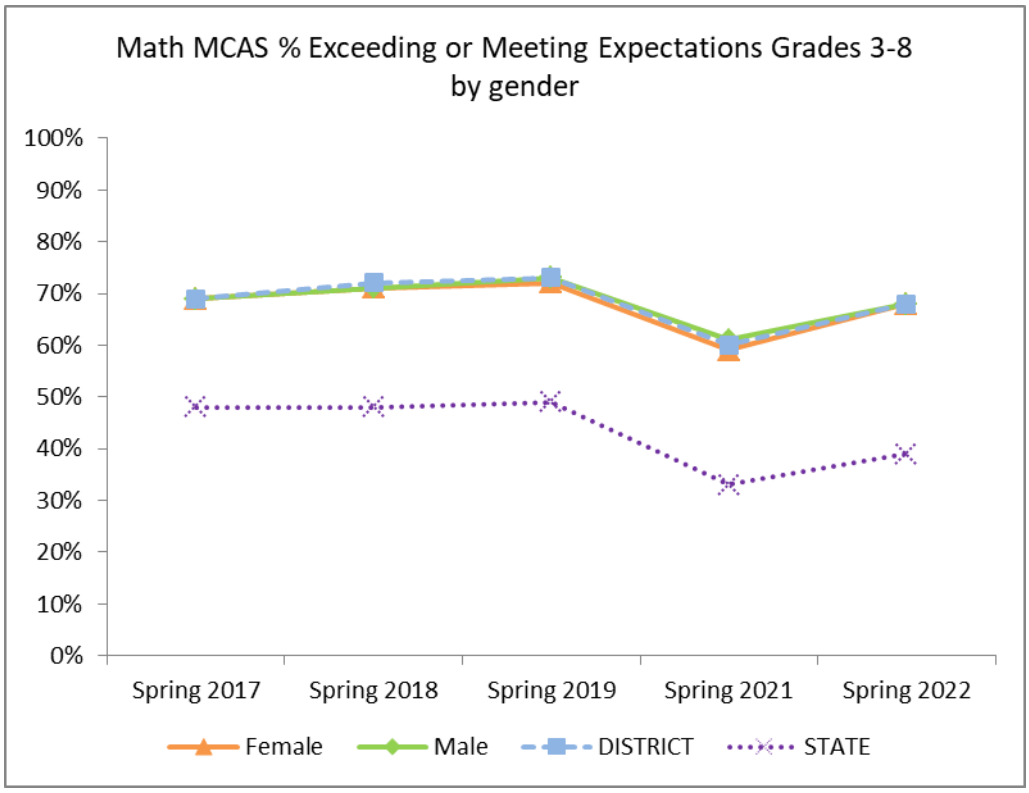

STE MCAS % Exceeding or Meeting Expectations Grade 8
by economically disadvantaged status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

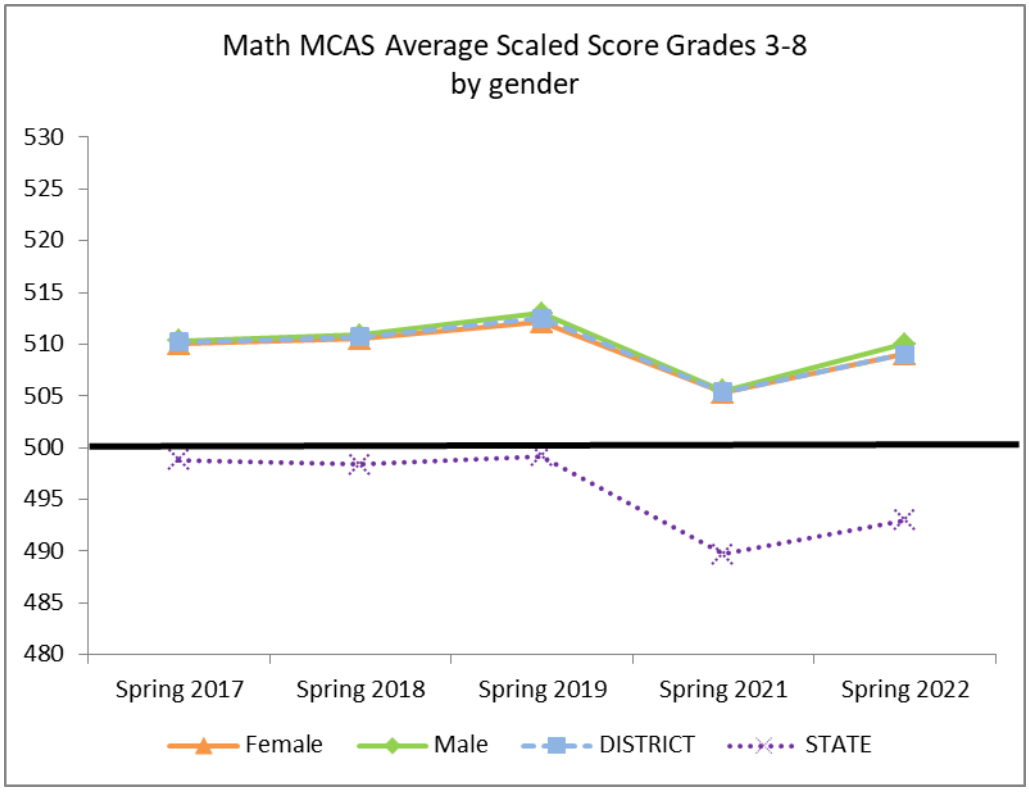

STE MCAS Average Scaled Score Grade 8
by economically disadvantaged status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

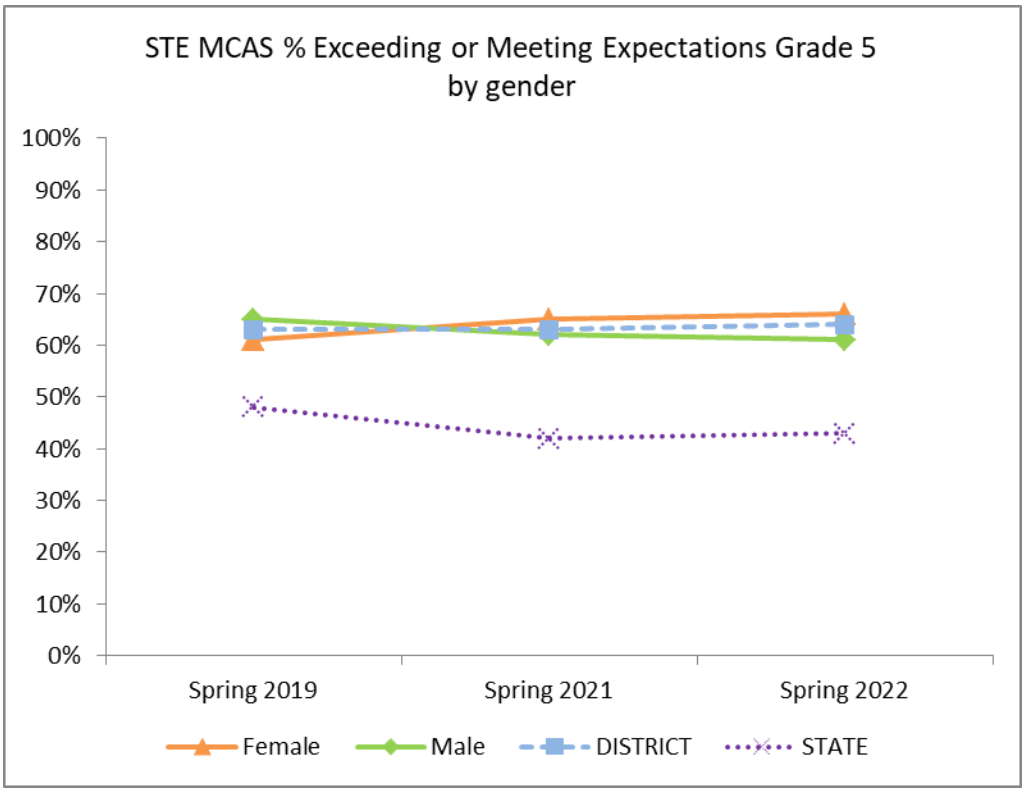
Grades 3 – 8: Gender

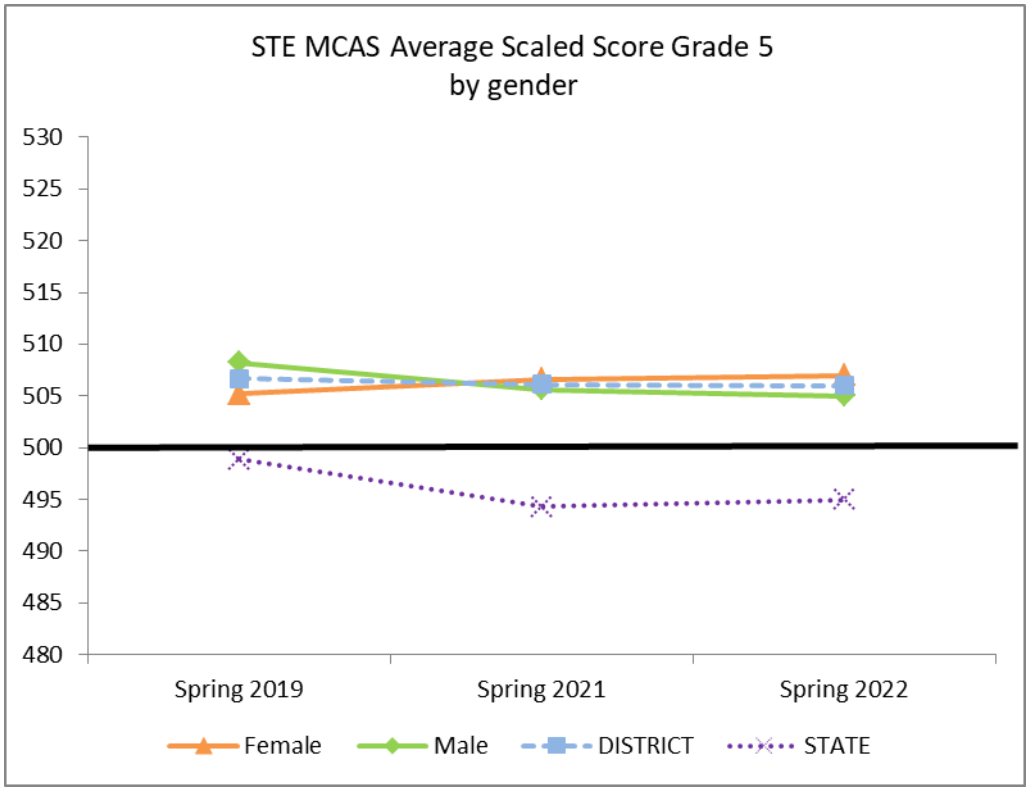


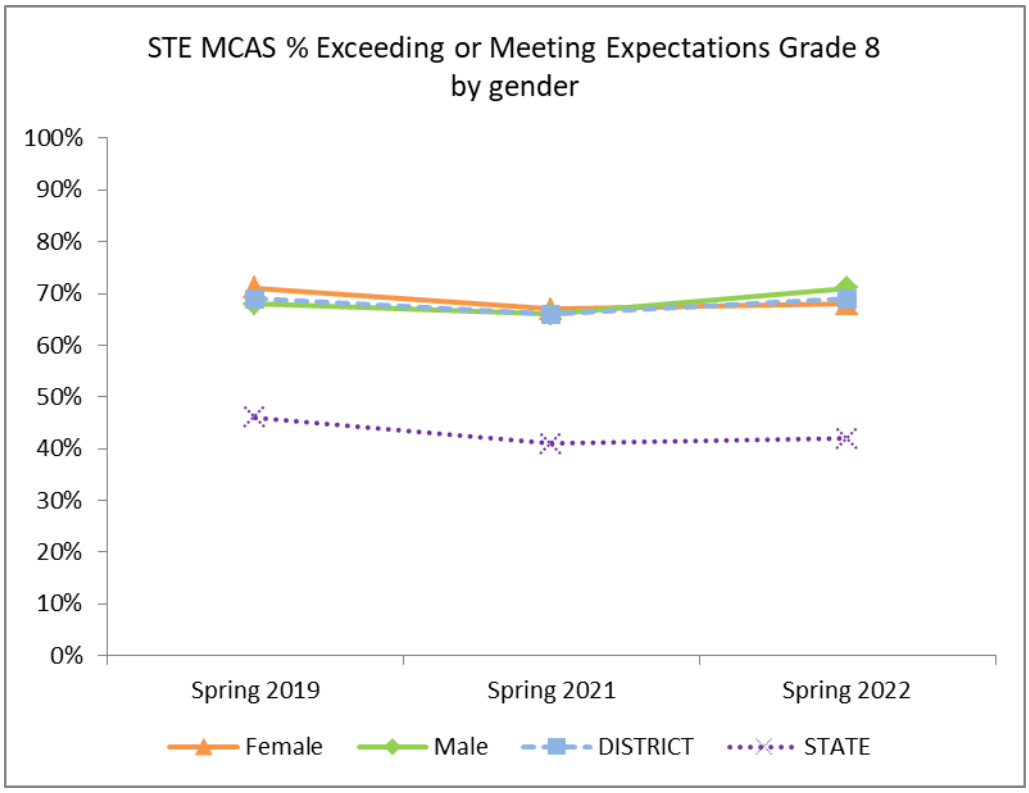


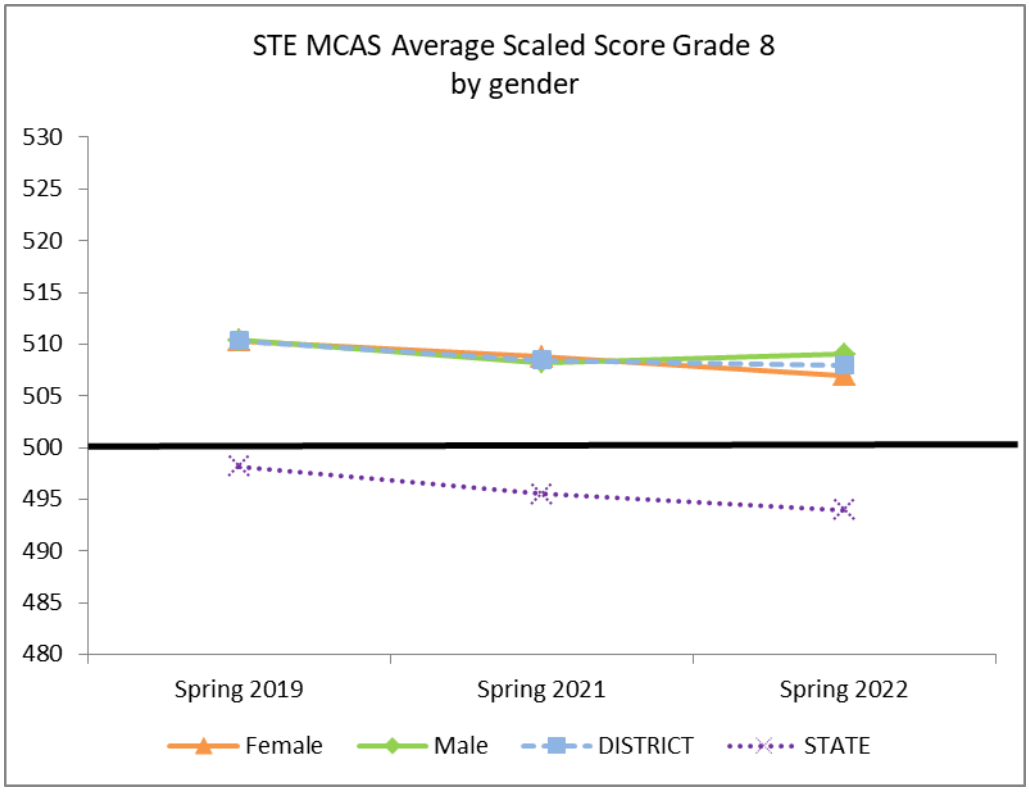

Math MCAS % Exceeding or Meeting Expectations Grades 3-8
by gender
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE


Math MCAS Average Scaled Score Grades 3-8
by gender
530
525
520
515
510
505
500
495
490
485
480
Spring 2017
Spring 2018
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE

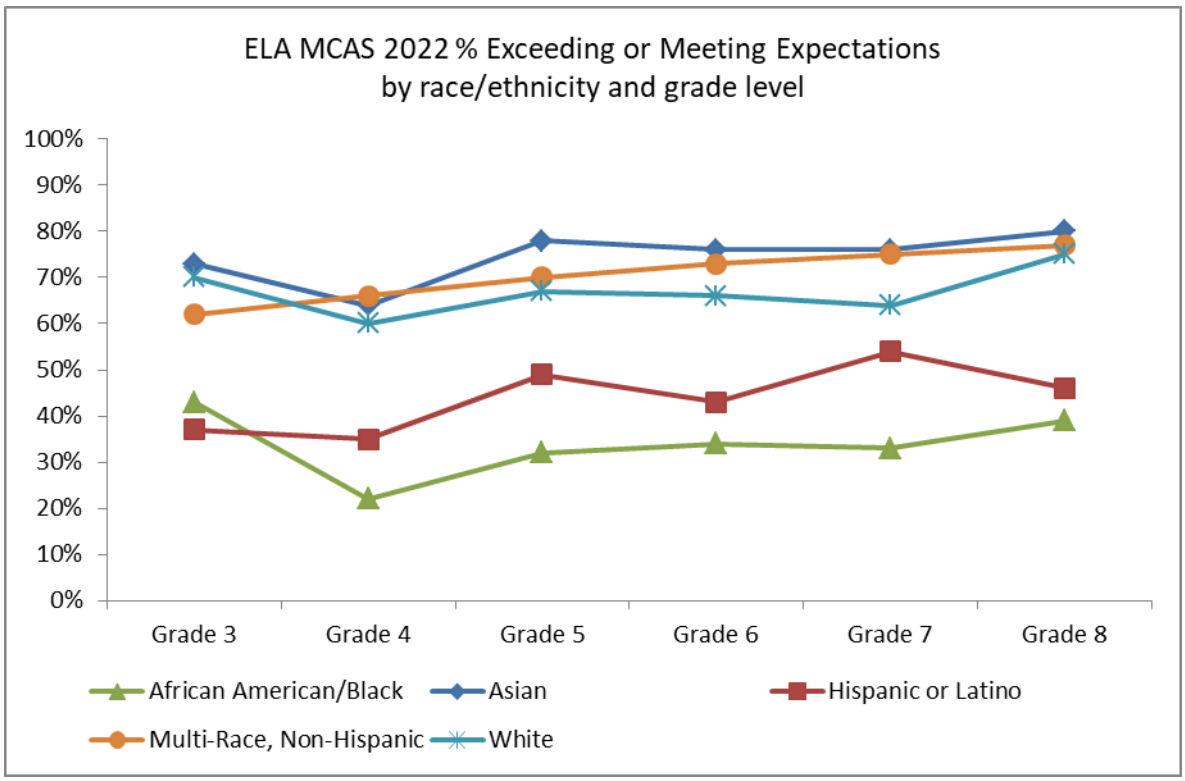

STE MCAS % Exceeding or Meeting Expectations Grade 5
by gender
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE

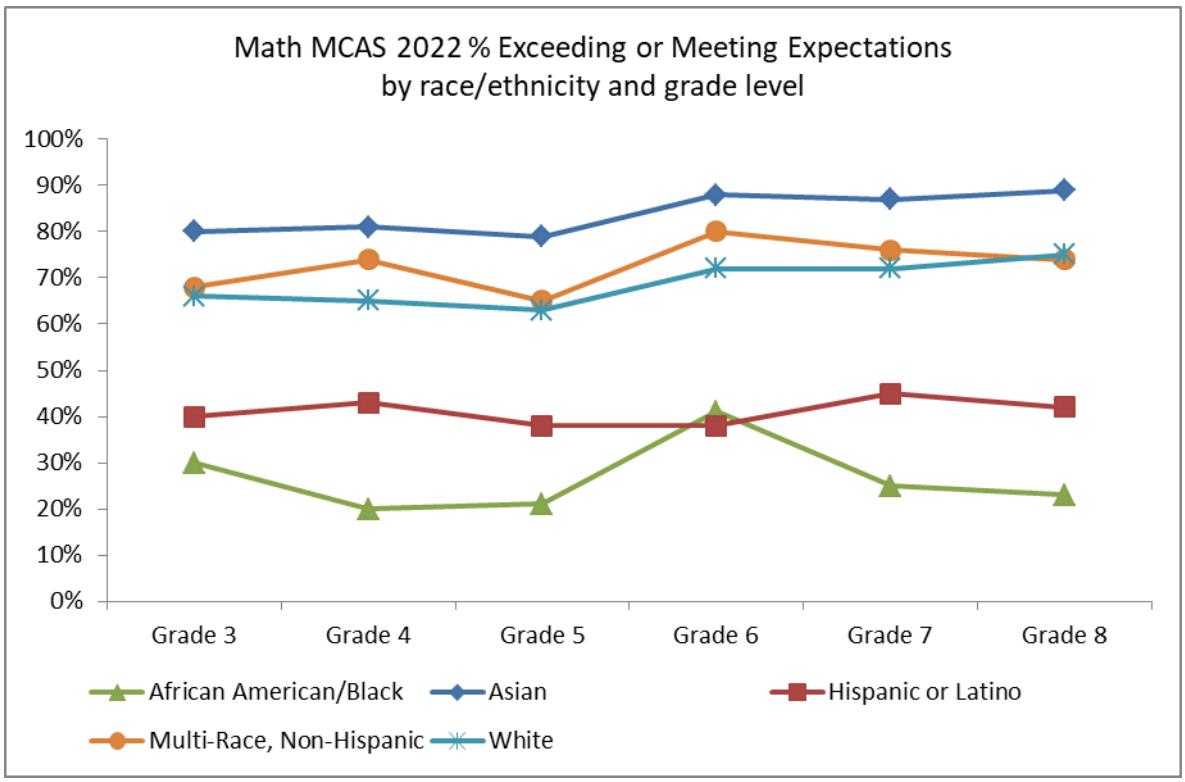

STE MCAS Average Scaled Score Grade 5
by gender
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE


STE MCAS % Exceeding or Meeting Expectations Grade 8
by gender
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE

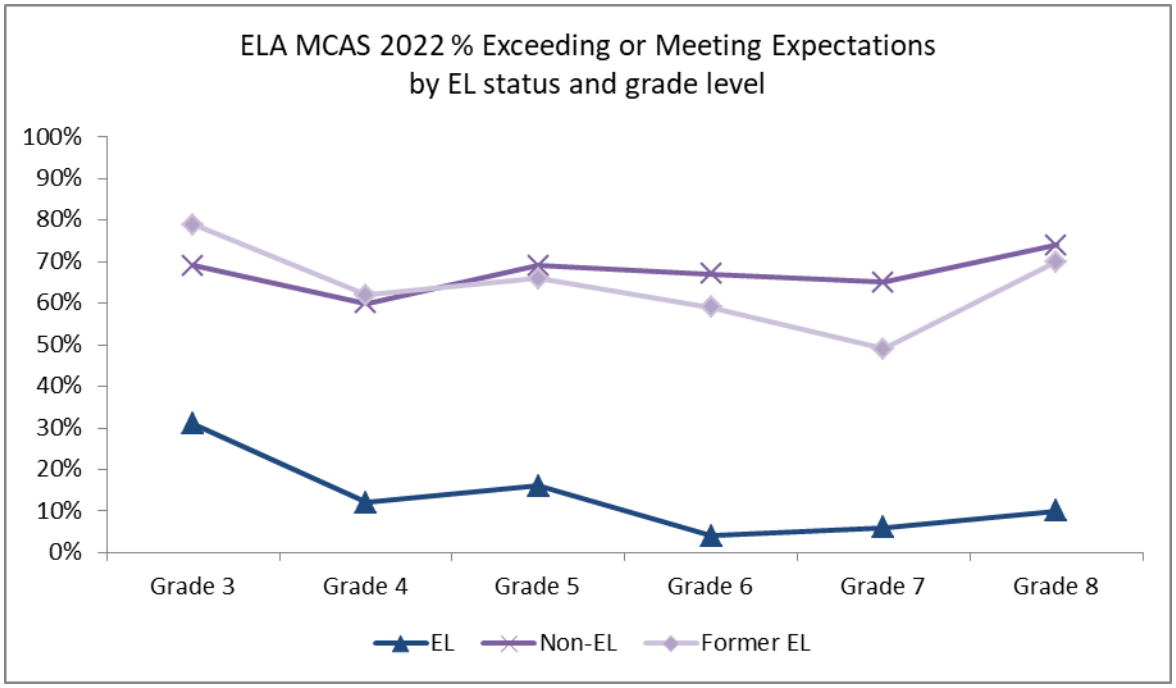

STE MCAS Average Scaled Score Grade 8
by gender
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE

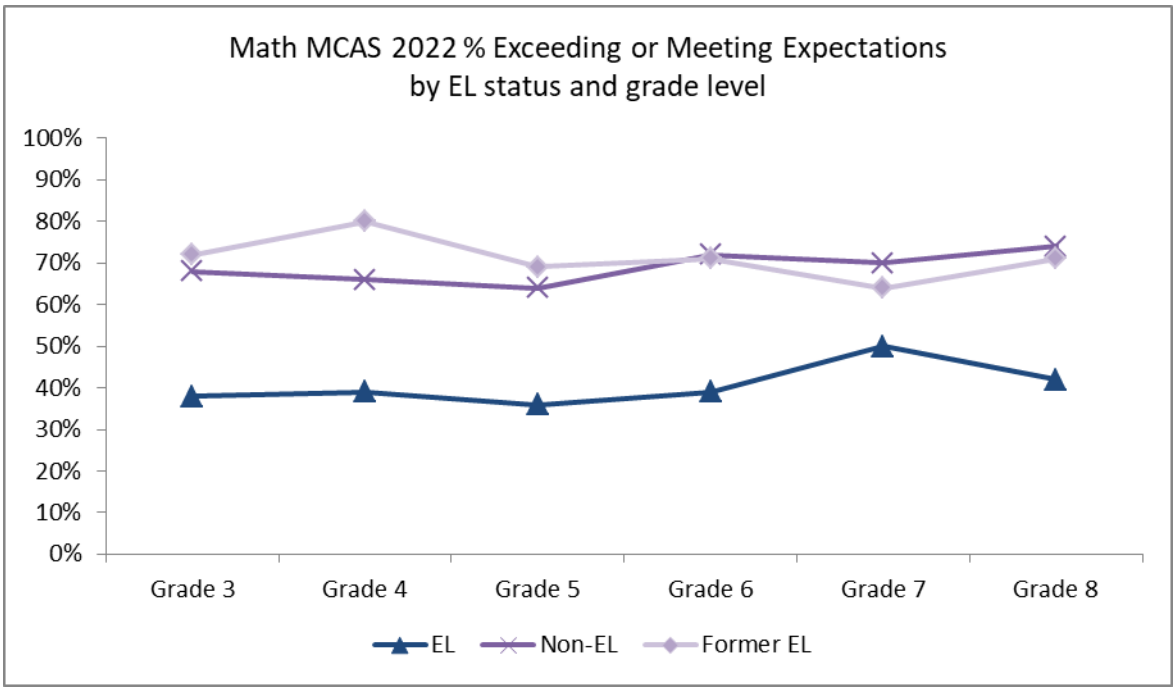
Grades 3 – 8: Subgroups by grade: Race/Ethnicity



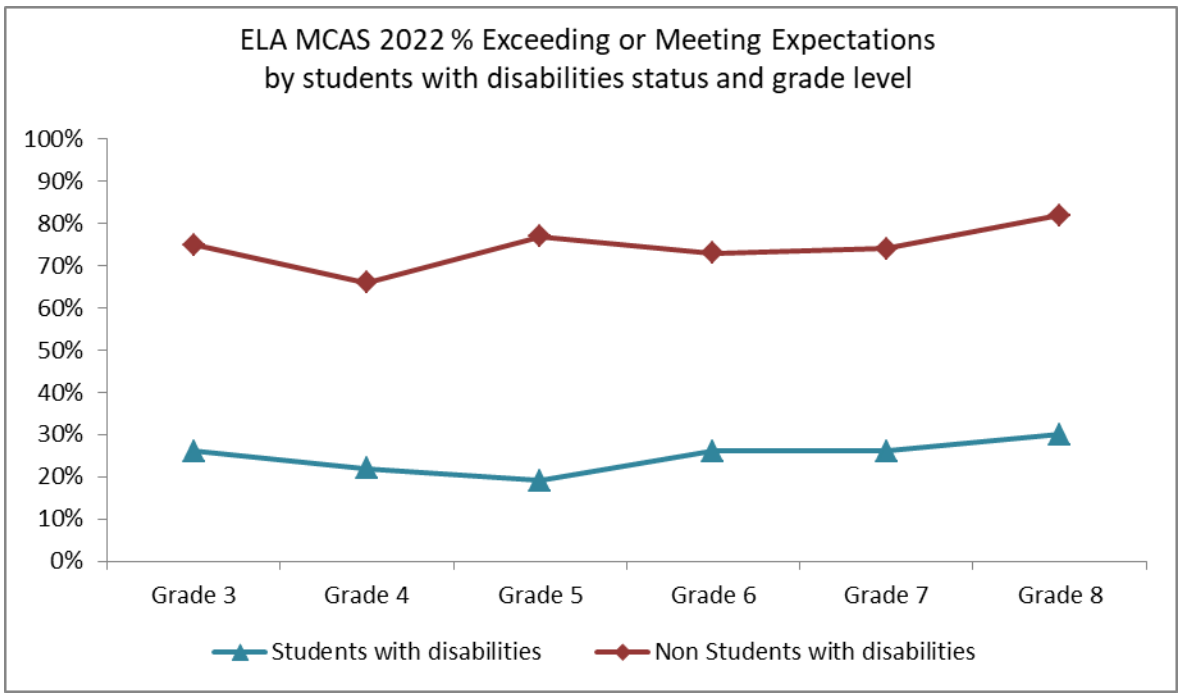


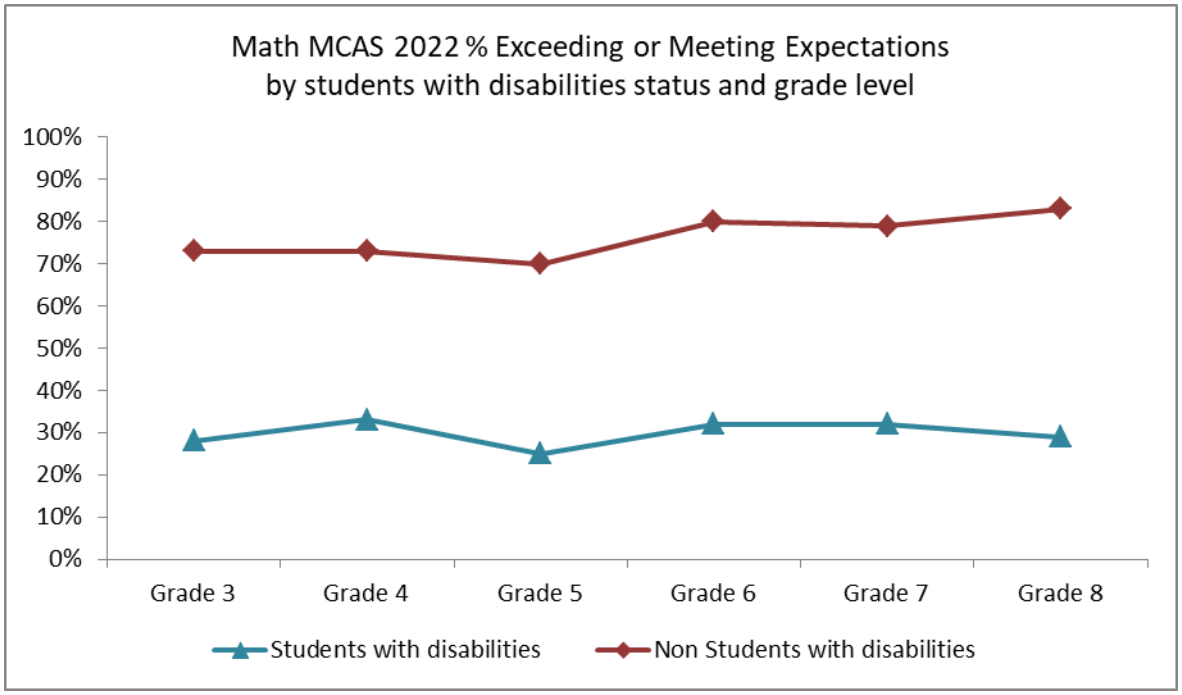
Grades 3 – 8: Subgroups by grade: EL Status



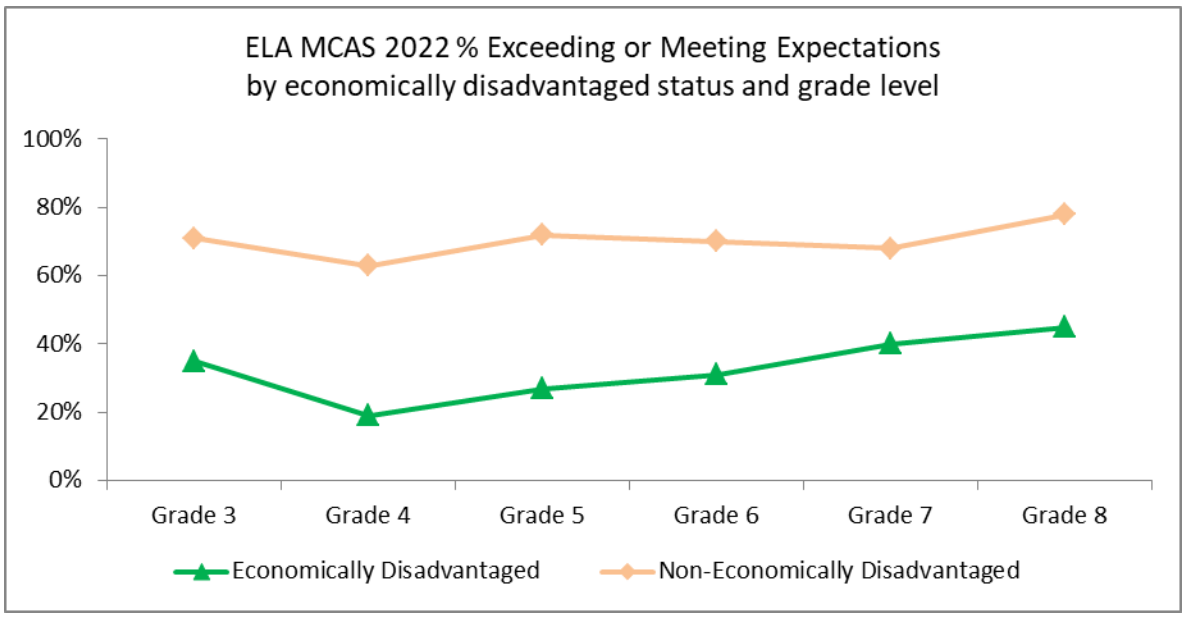


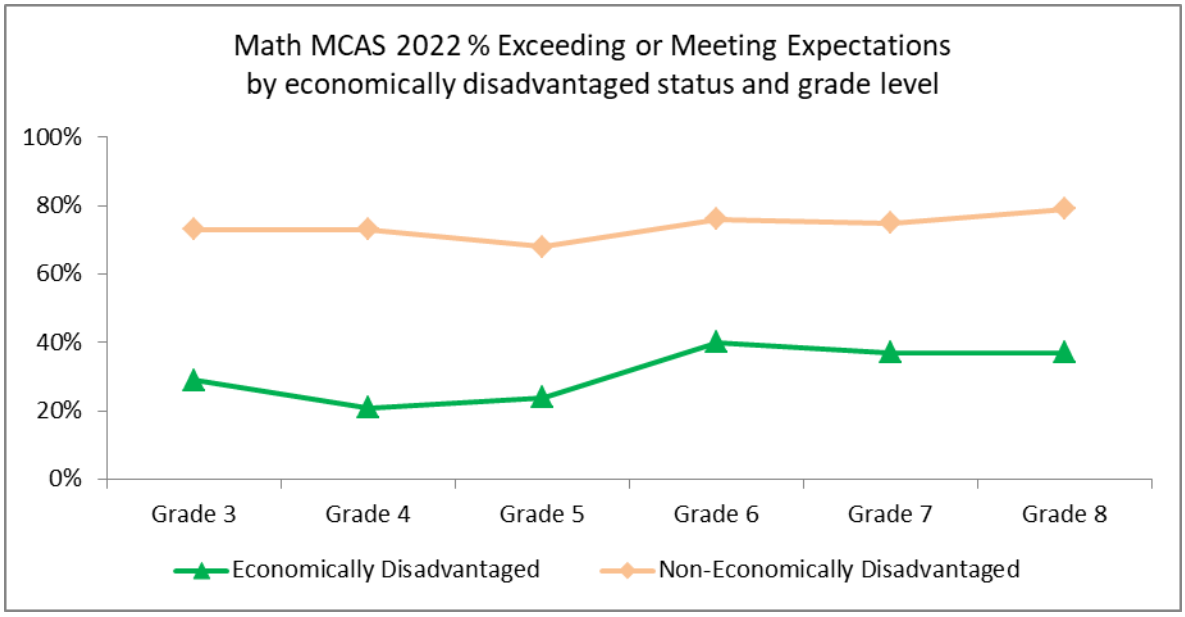
Grades 3 – 8: Subgroups by grade: Students with disabilities Status



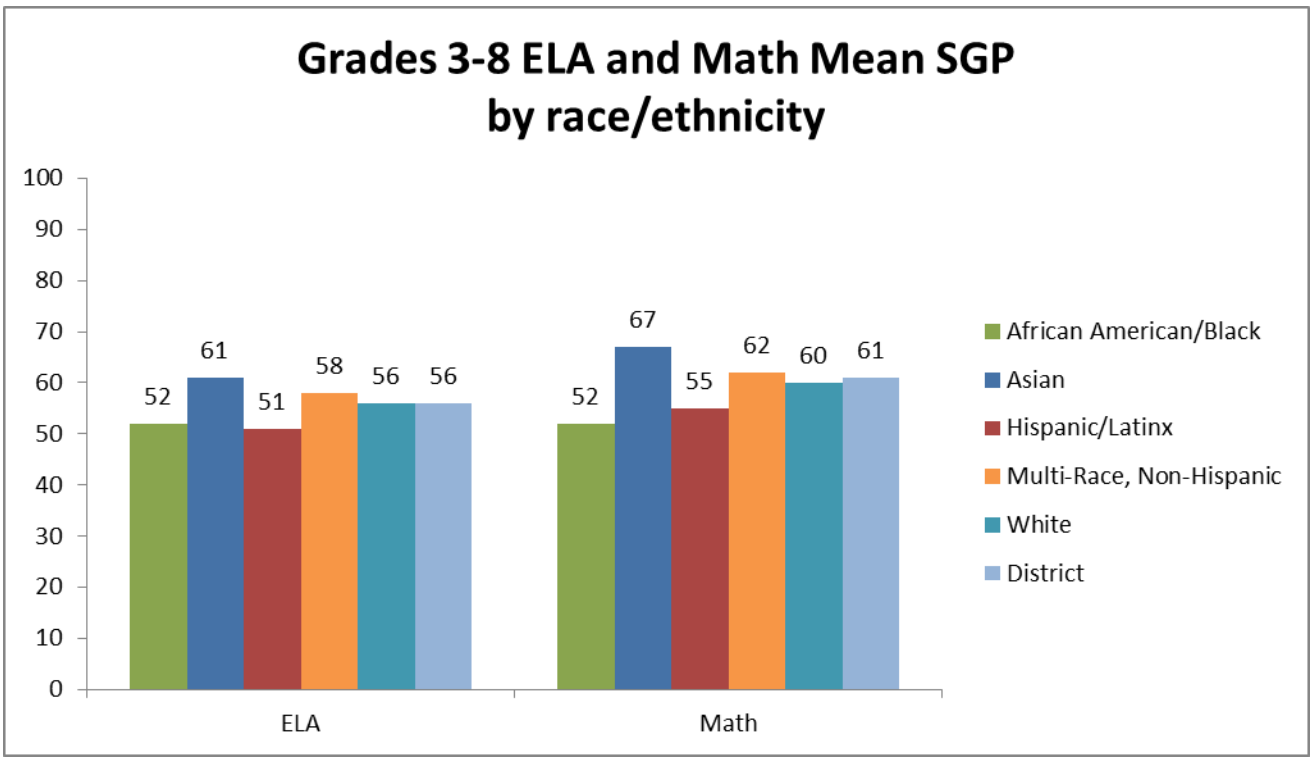


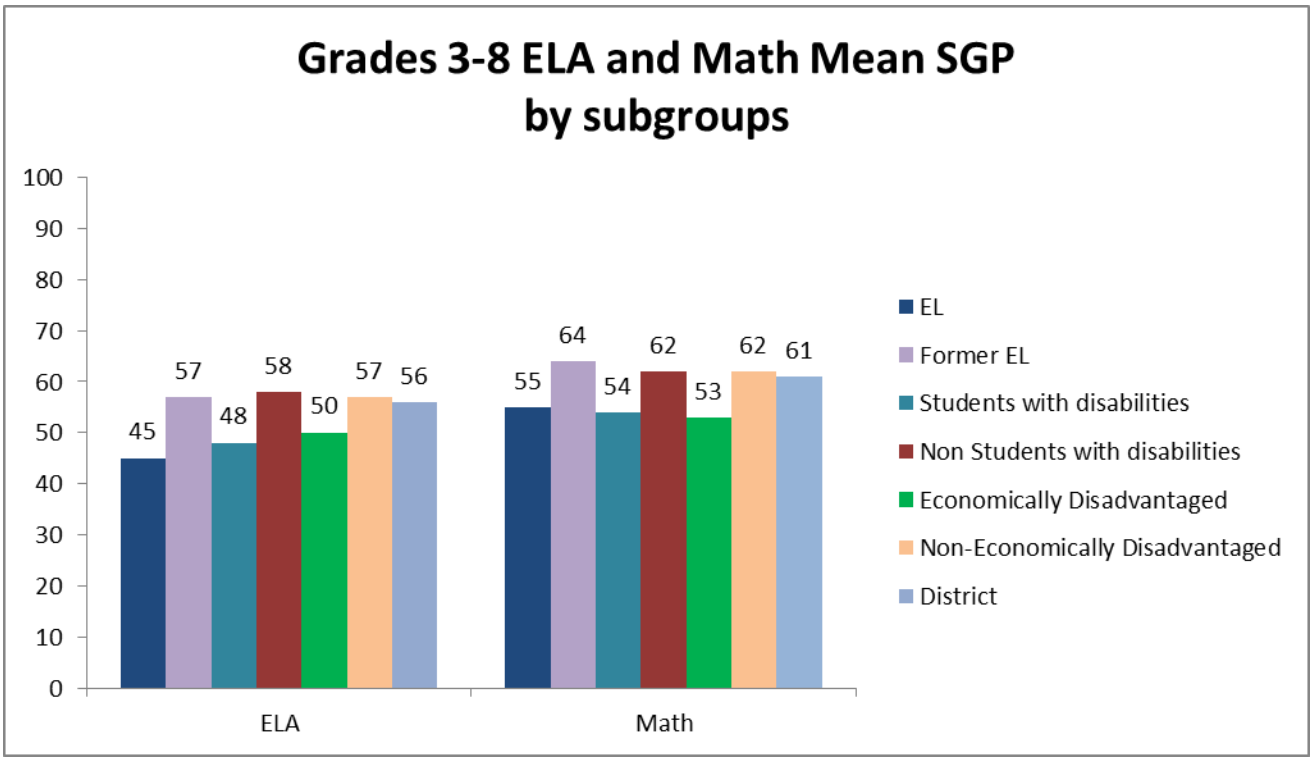
Grades 3 – 8: Subgroups by grade: Economically disadvantaged Status



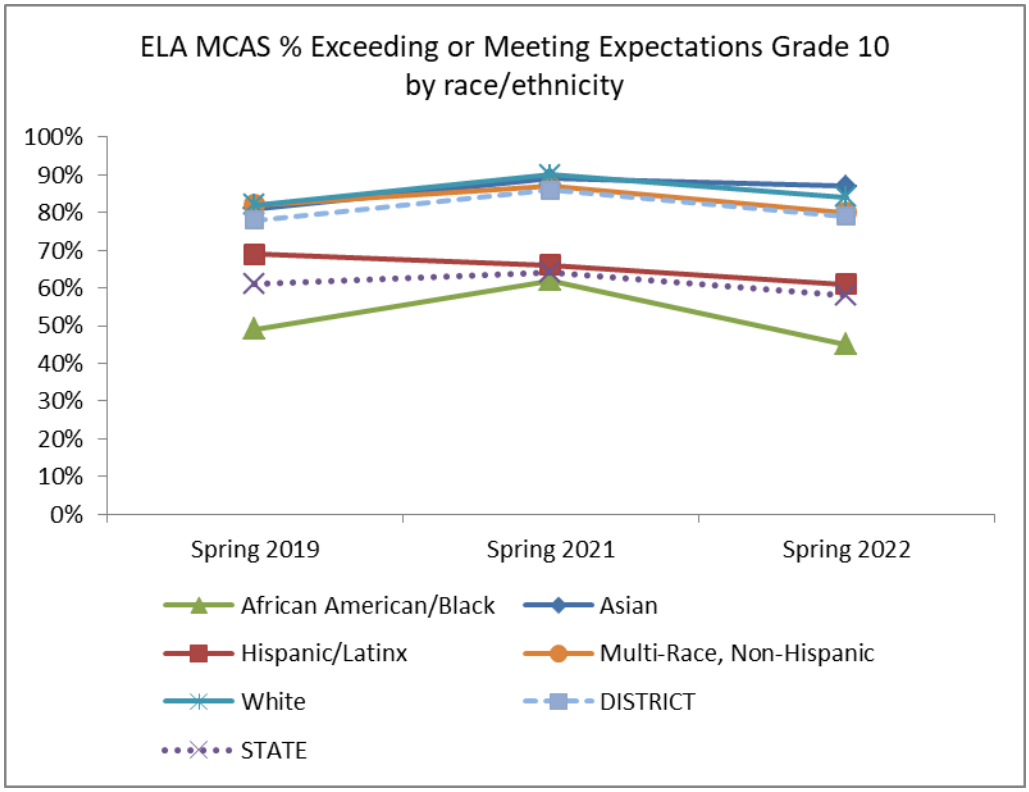


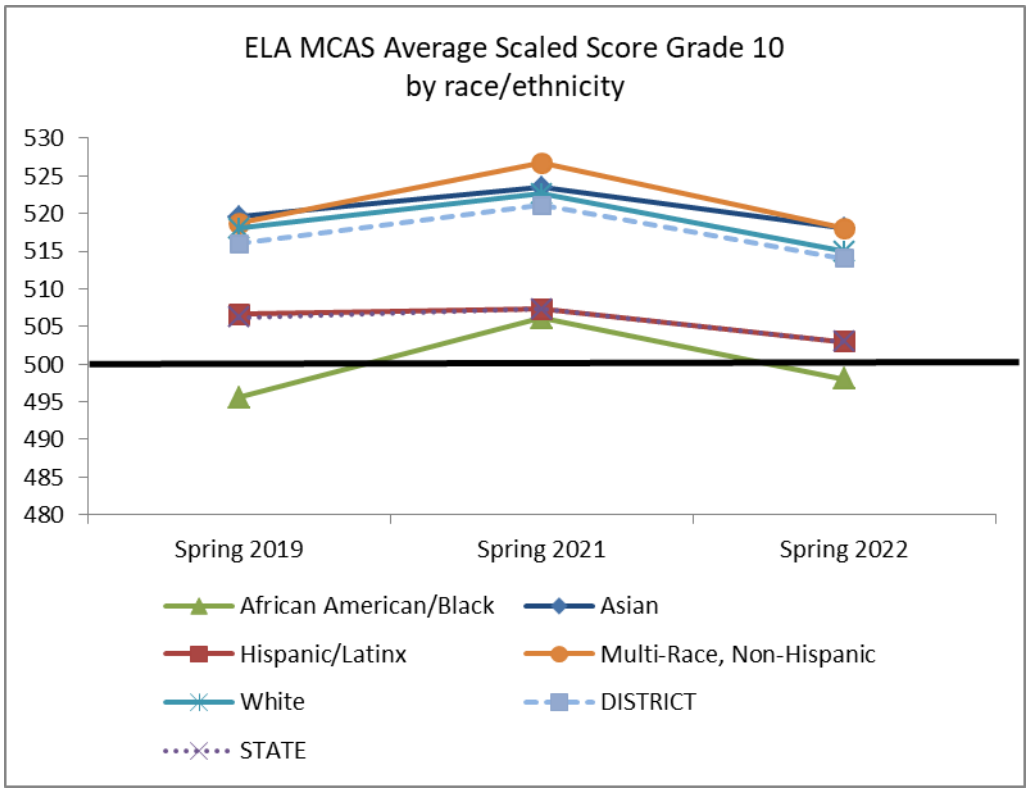
Grades 3-8: Student Growth Percentiles by subgroups

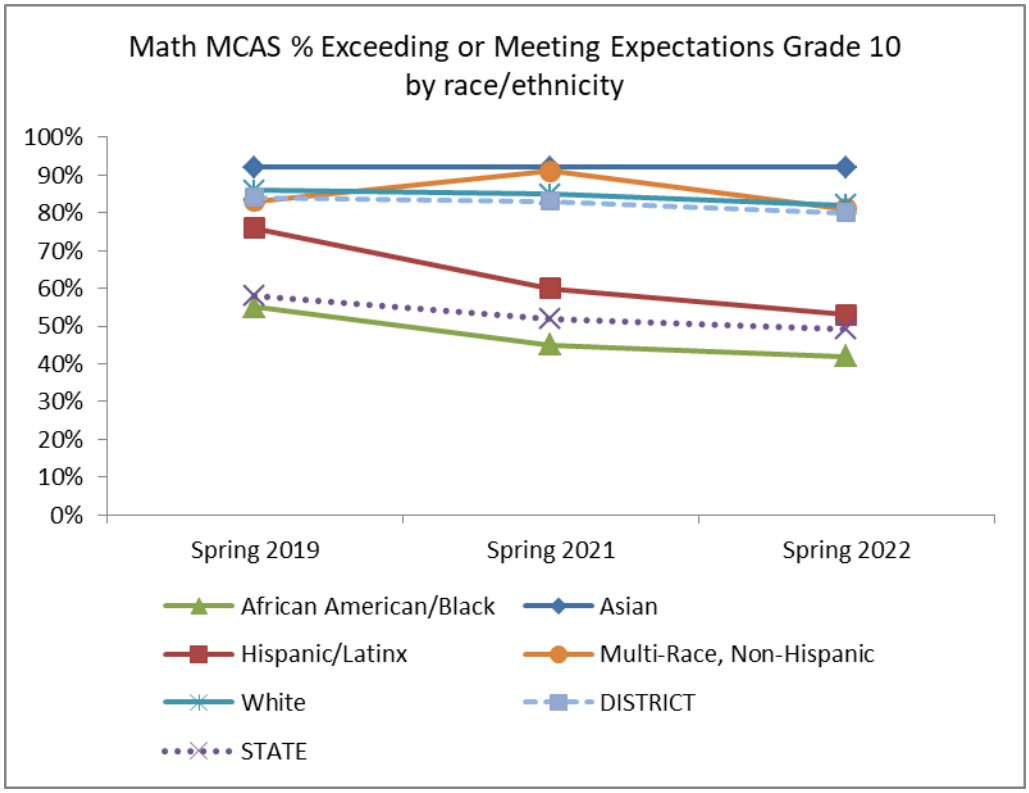


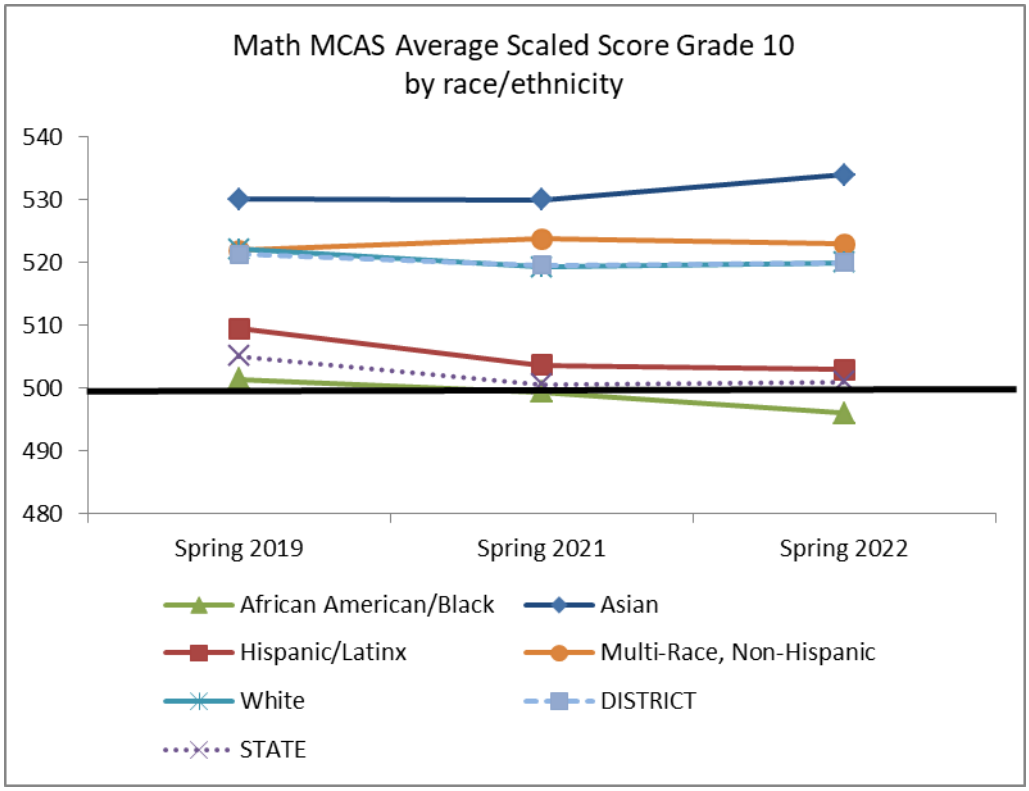


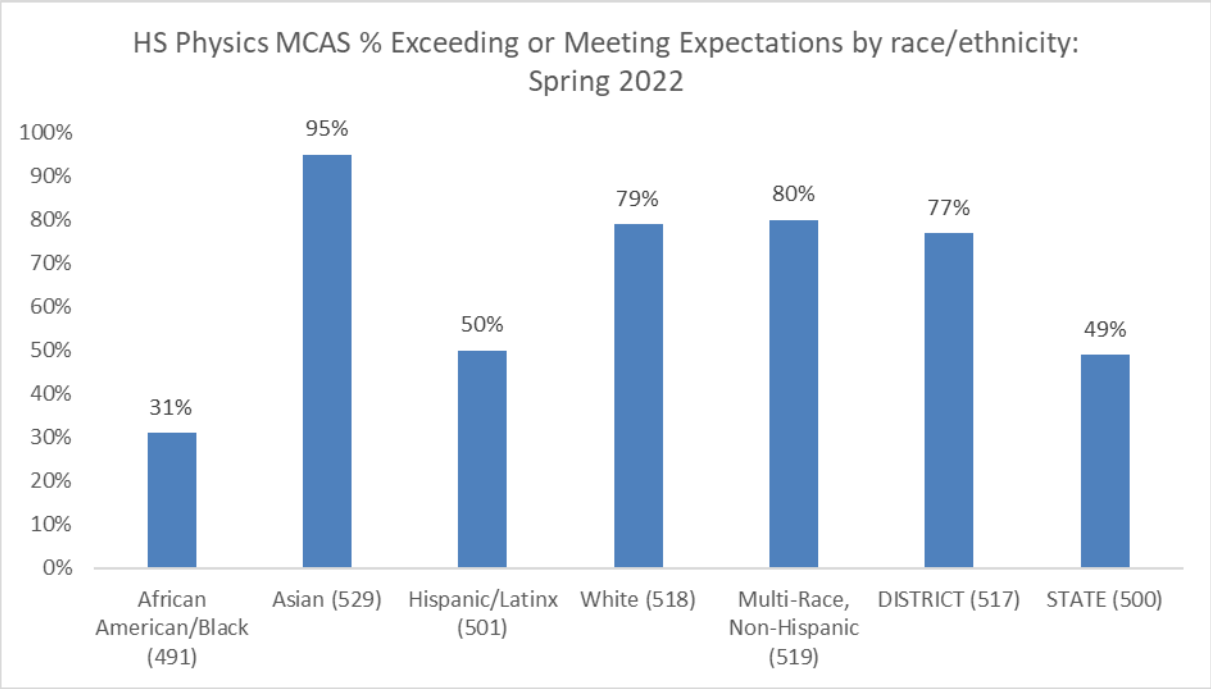
High Schools: Race/Ethnicity



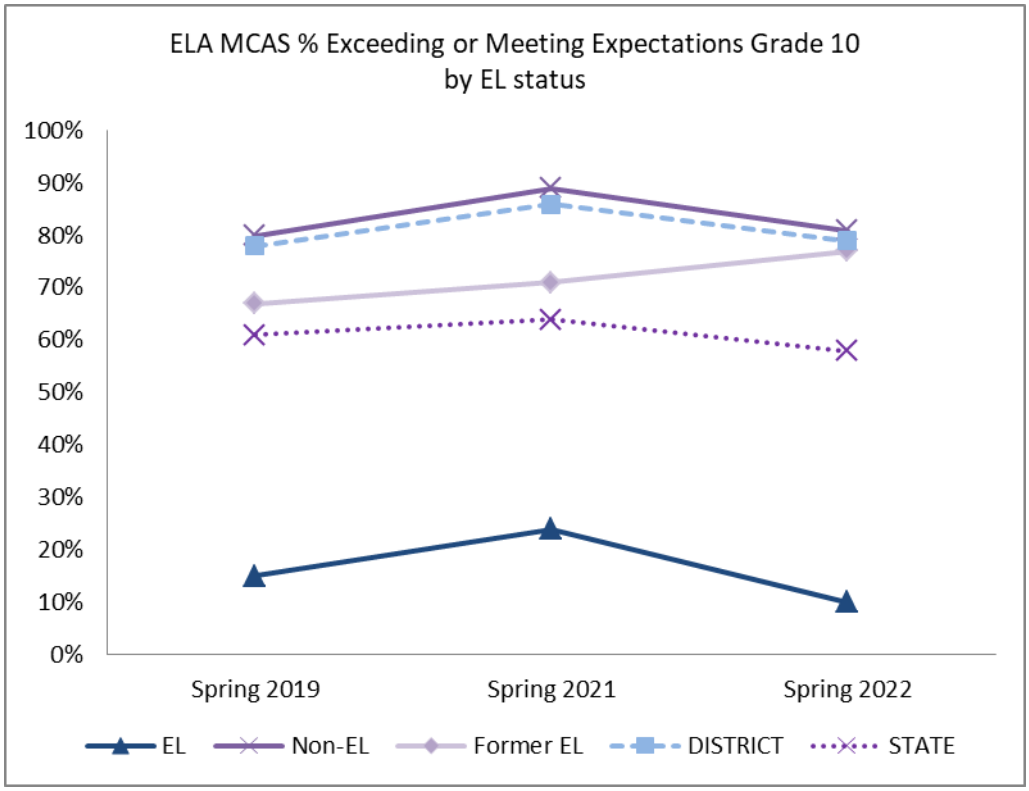


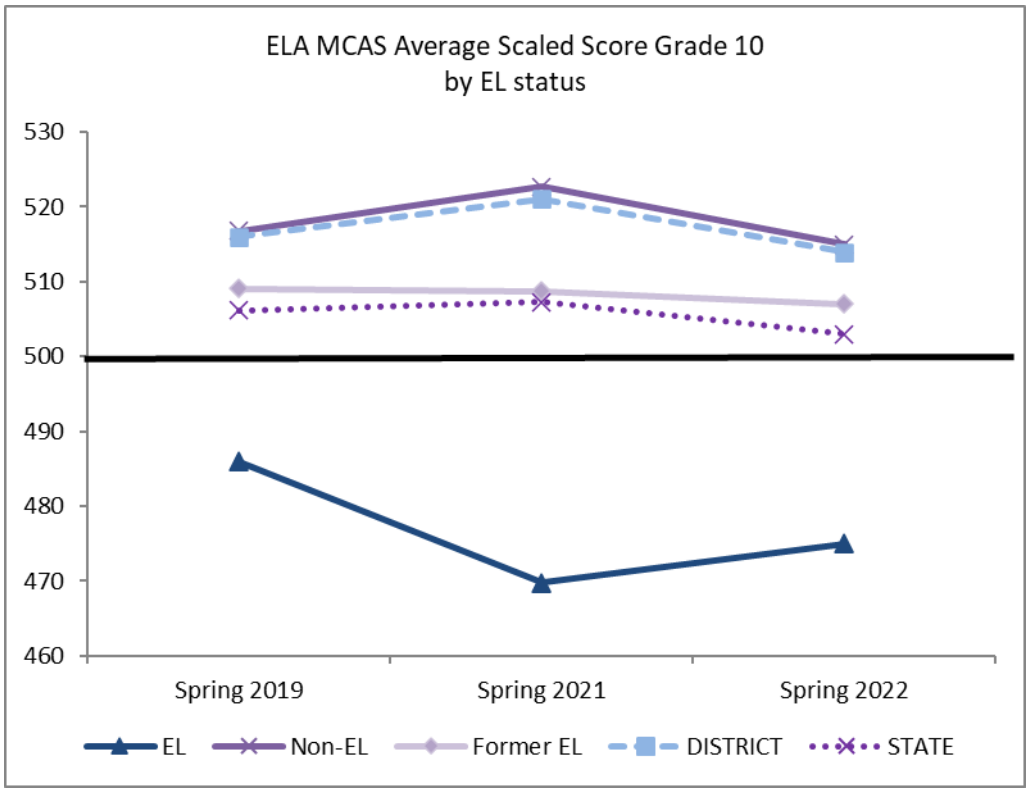

Math MCAS % Exceeding or Meeting Expectations Grade 10
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
DISTRICT
STATE

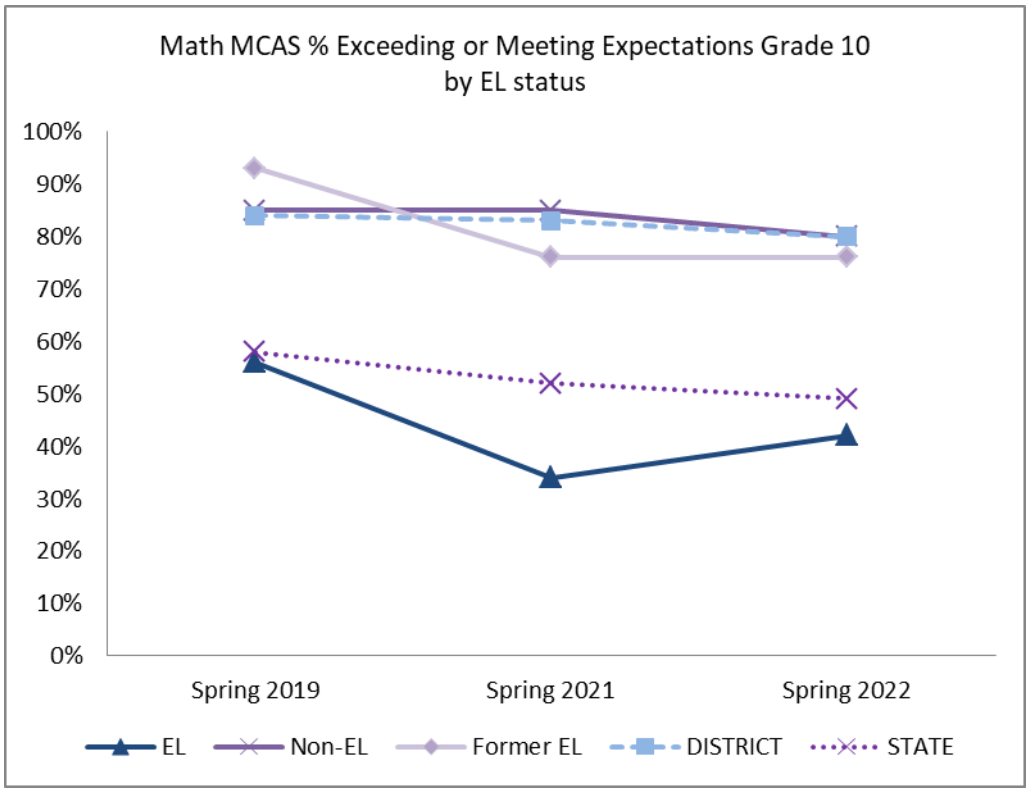

Math MCAS Average Scaled Score Grade 10
by race/ethnicity
540
530
520
510
500
490
480
Spring 2019
Spring 2021
Spring 2022
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
DISTRICT
STATE

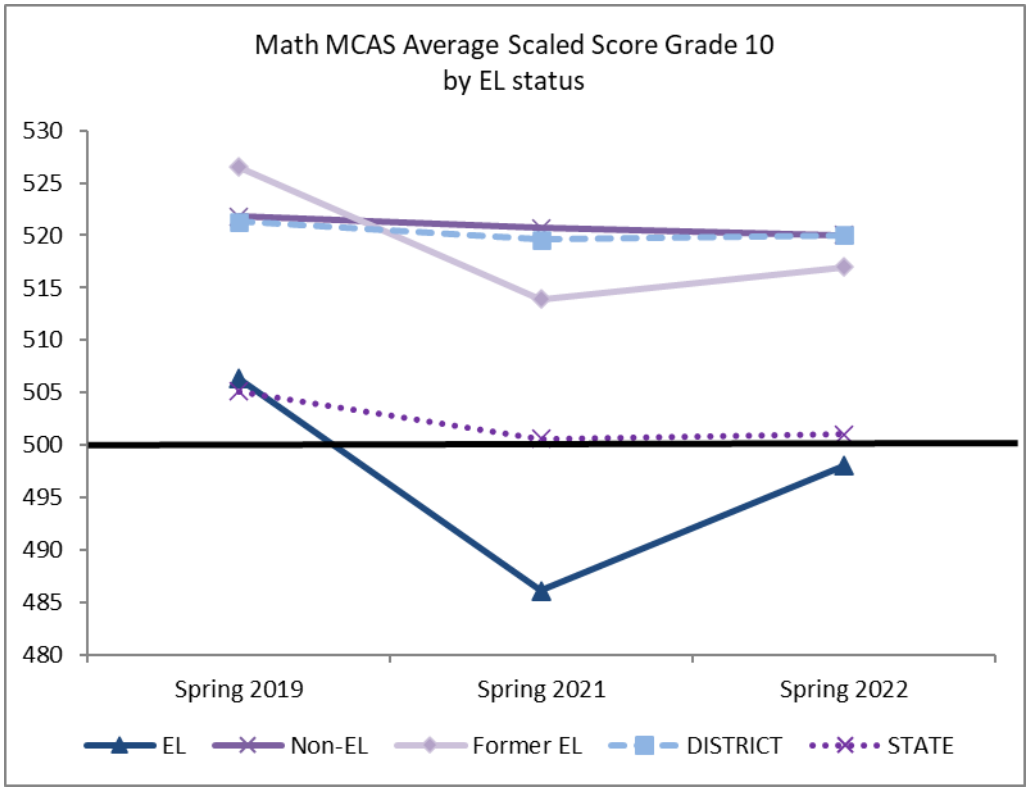

HS Physics MCAS % Exceeding or Meeting Expectations by race/ethnicity: Spring 2022
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
31%
95%
50%
79%
80%
77%
49%
African American/Black (491)
Asian (529)
Hispanic/Latinx (501)
White (518)
Multi-Race, Non-Hispanic (519)
DISTRICT (517)
STATE (500)

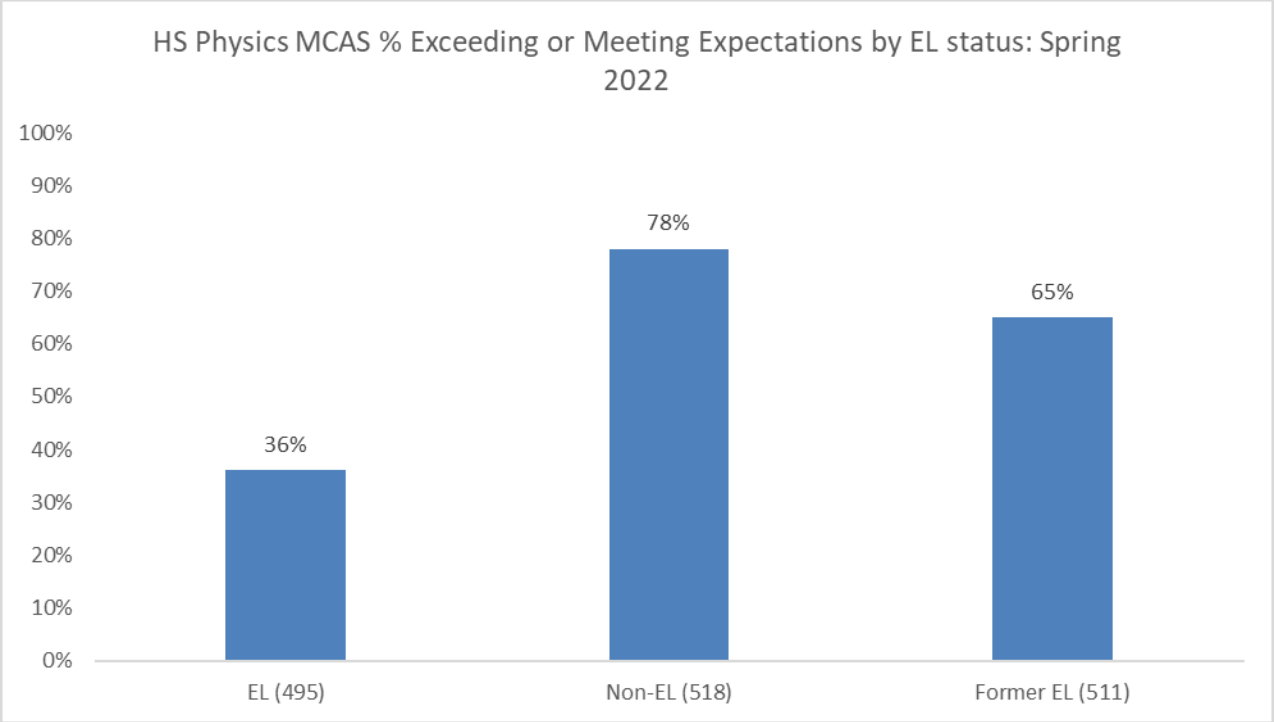
High School: English Learner Status



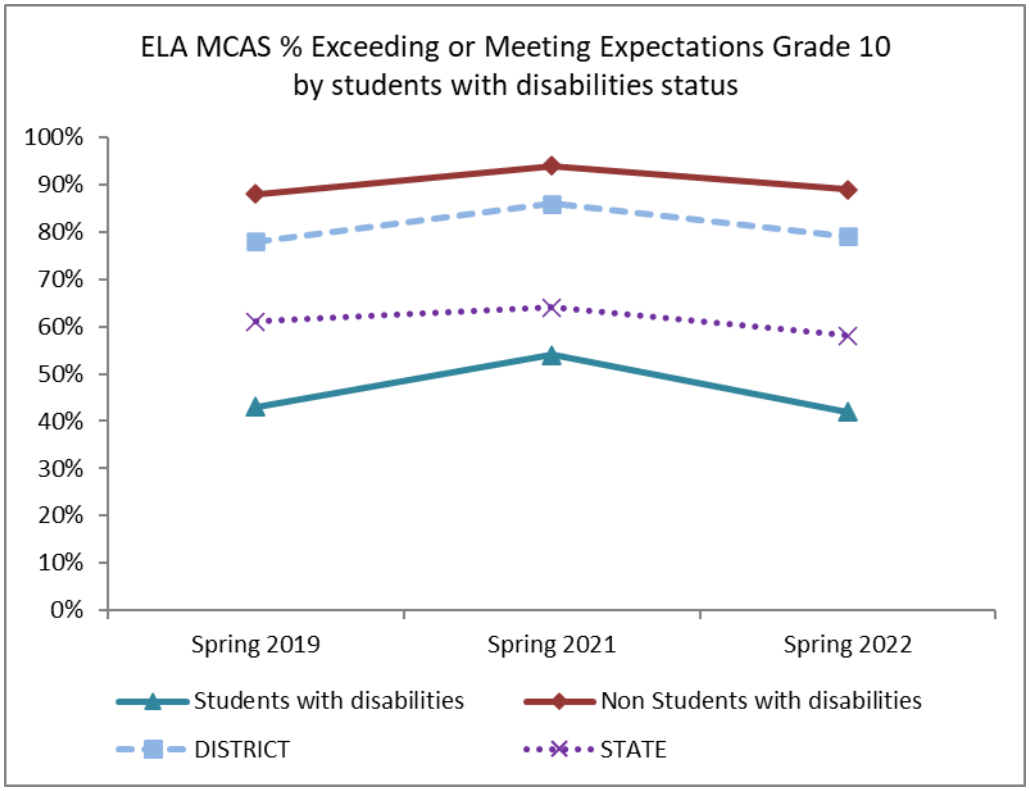


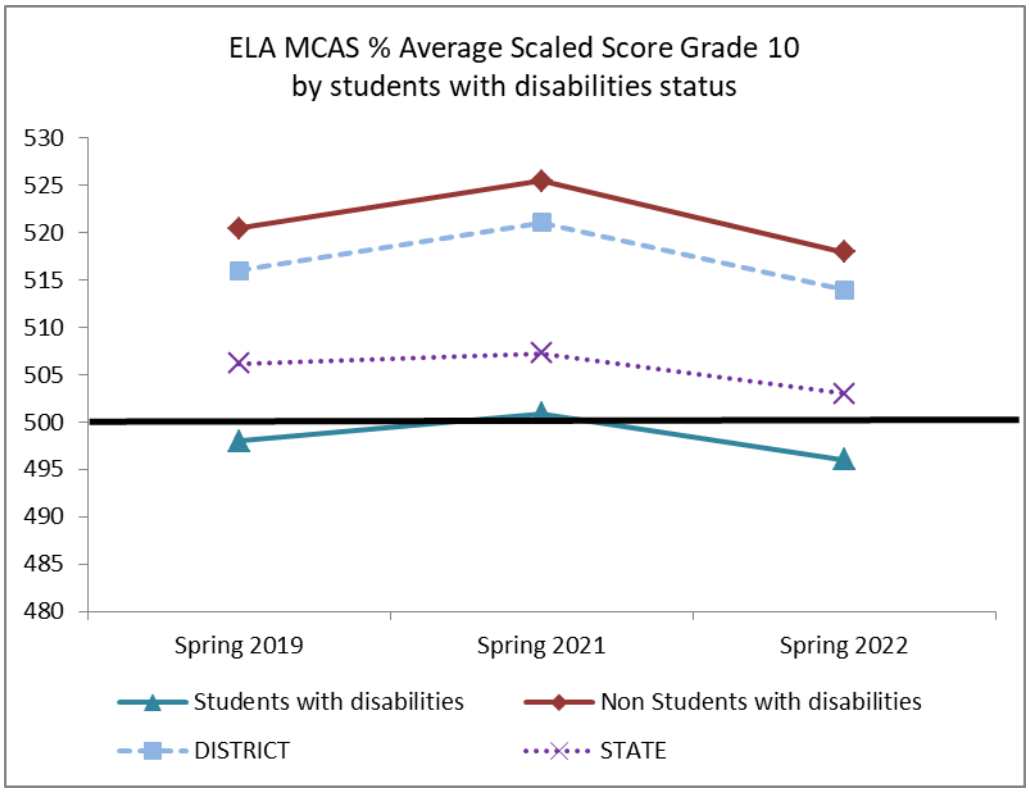

Math MCAS % Exceeding or Meeting Expectations Grade 10
by EL status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
EL
Non-EL
Former EL
DISTRICT
STATE

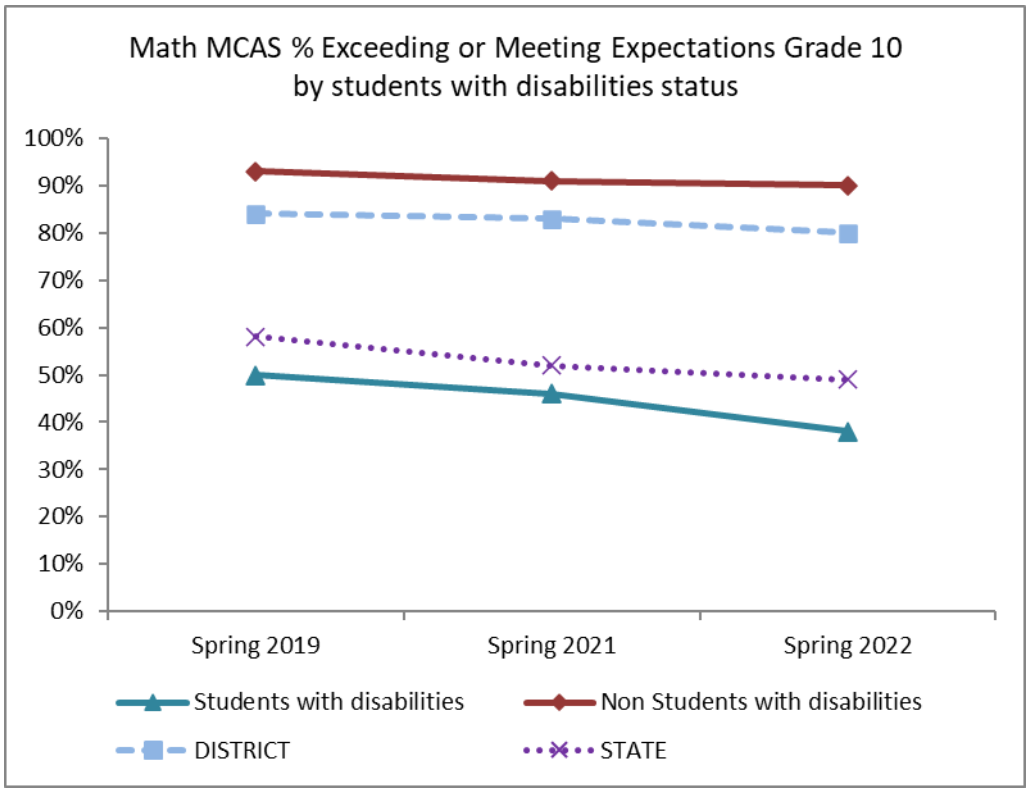

Math MCAS Average Scaled Score Grade 10
by EL status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
EL
Non-EL
Former EL
DISTRICT
STATE

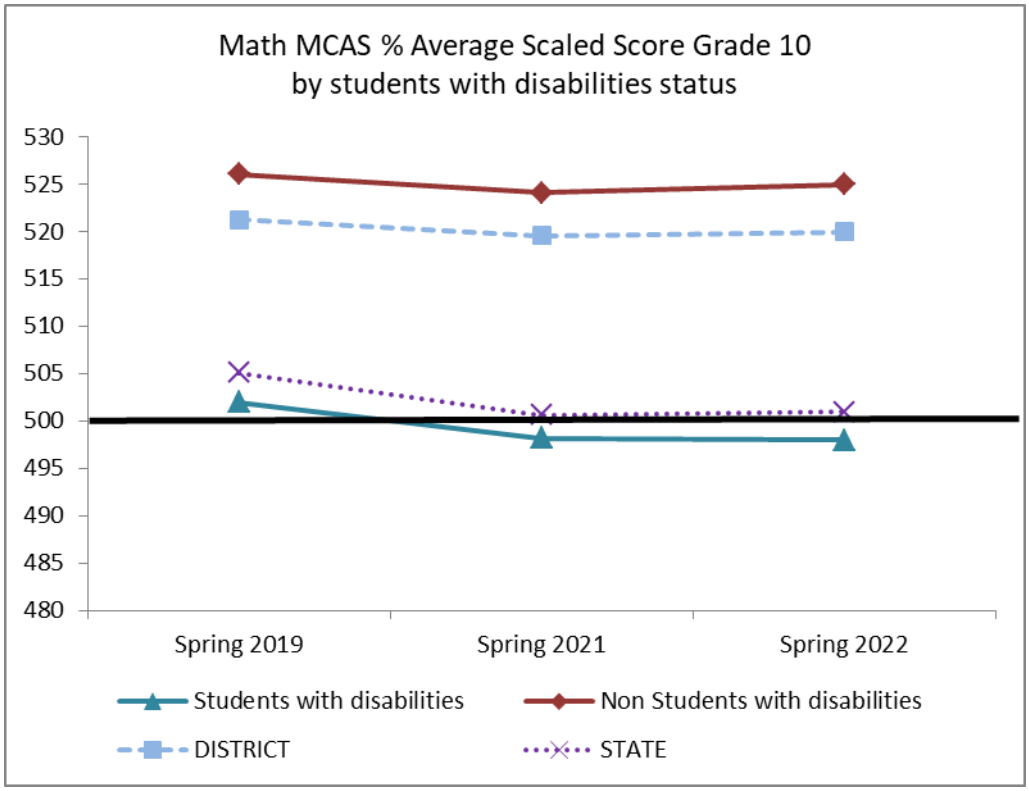

HS Physics MCAS % Exceeding or Meeting Expectations by EL status: Spring 2022
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
36%
78%
65%
EL (495)
Non-EL (518)
Former EL (511)

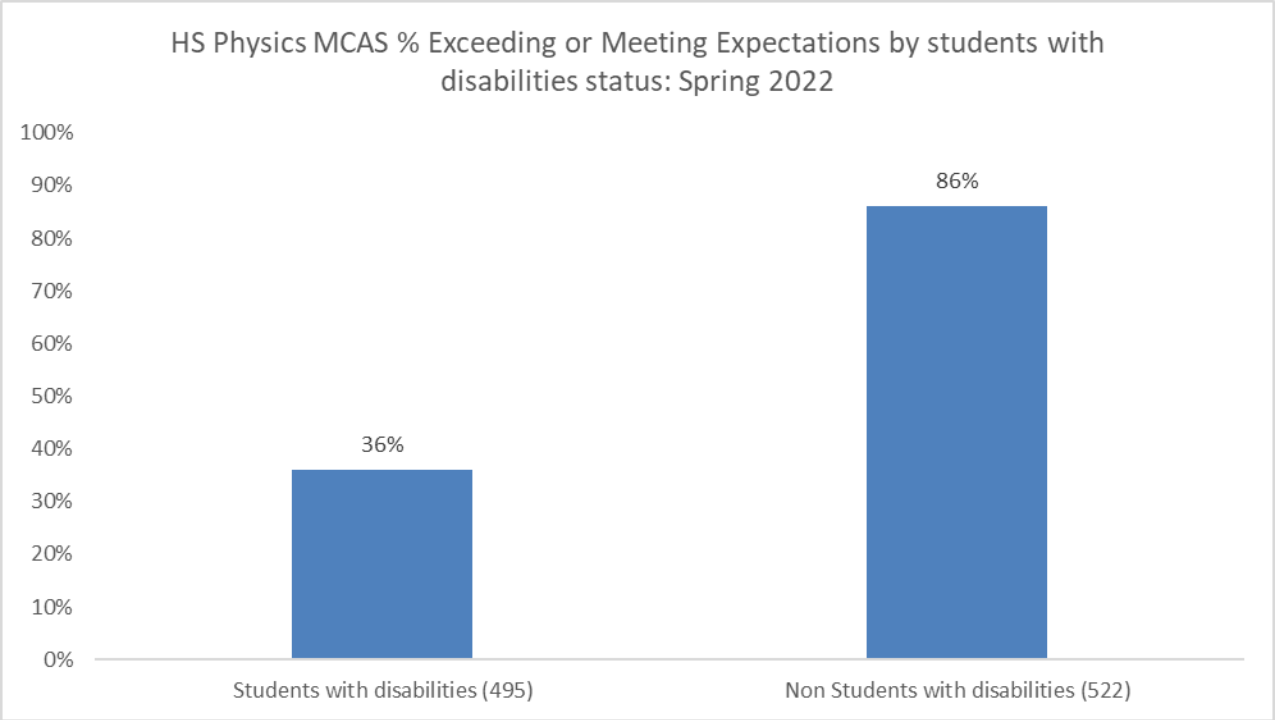
High School: Students with Disabilities status



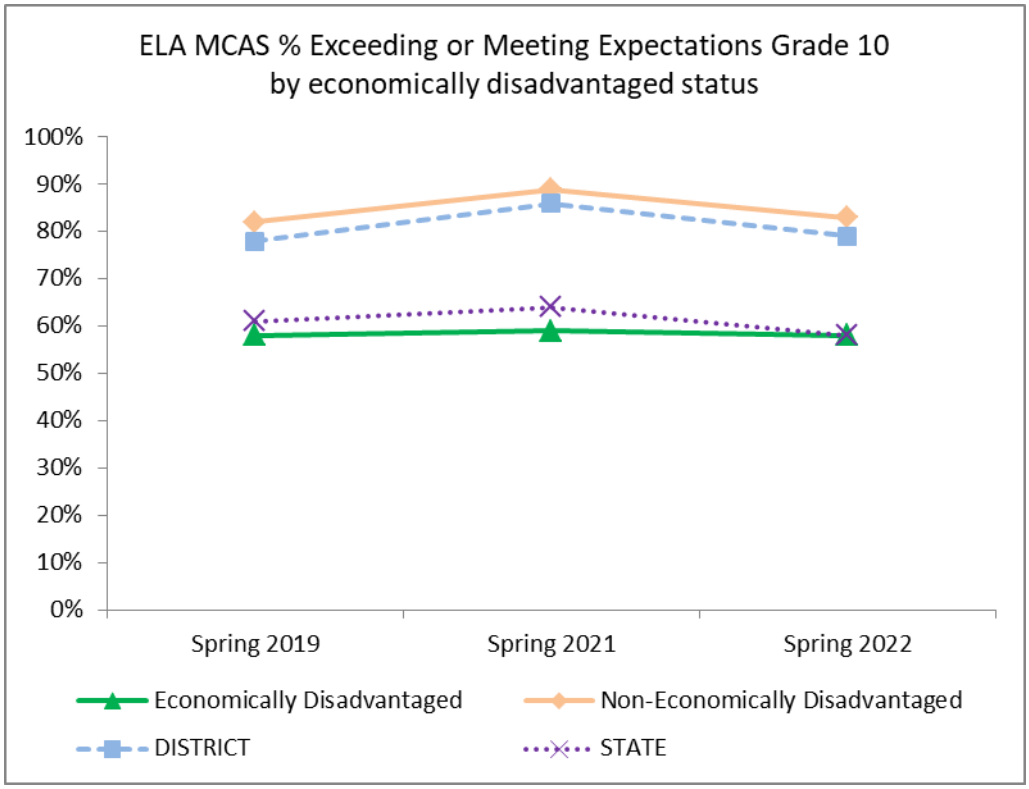


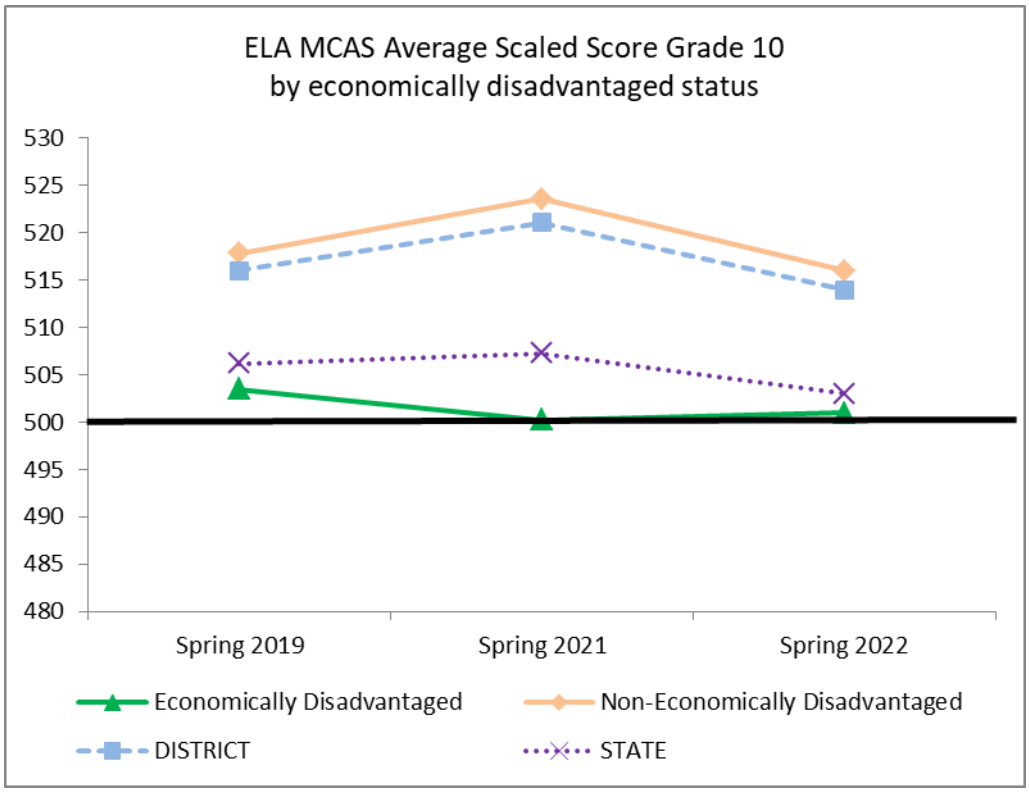

Math MCAS % Exceeding or Meeting Expectations Grade 10
by students with disabilities status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

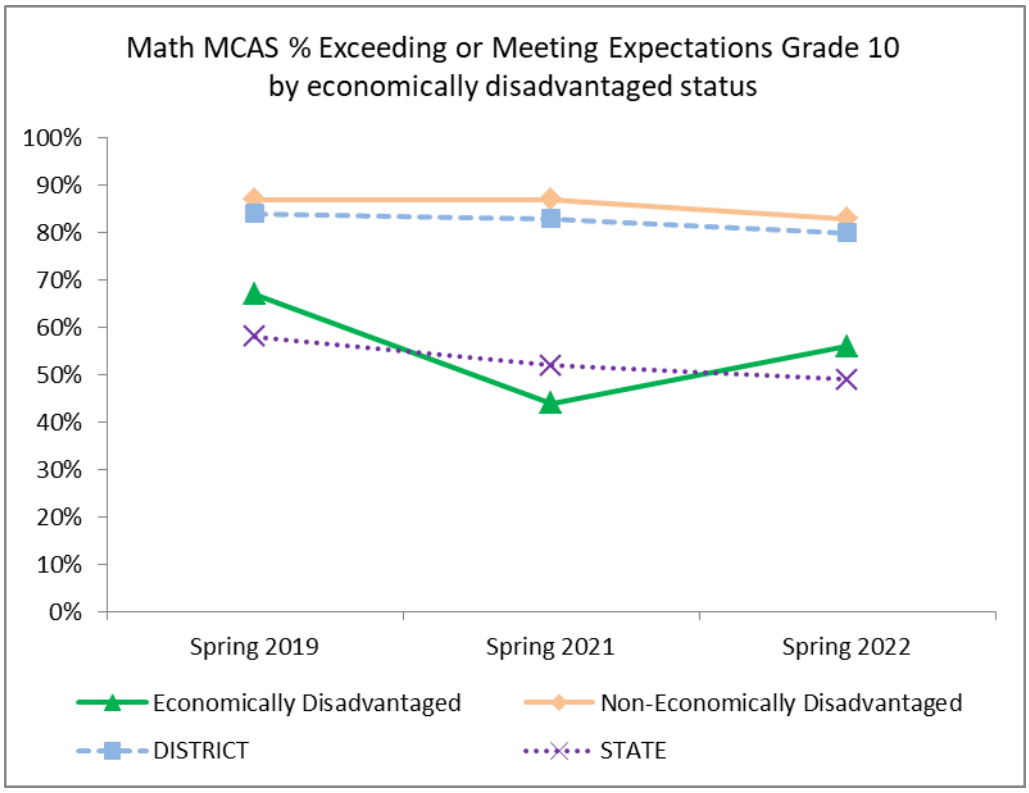

Math MCAS % Average Scaled Score Grade 10
by students with disabilities status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Students with disabilities
Non Students with disabilities
DISTRICT
STATE

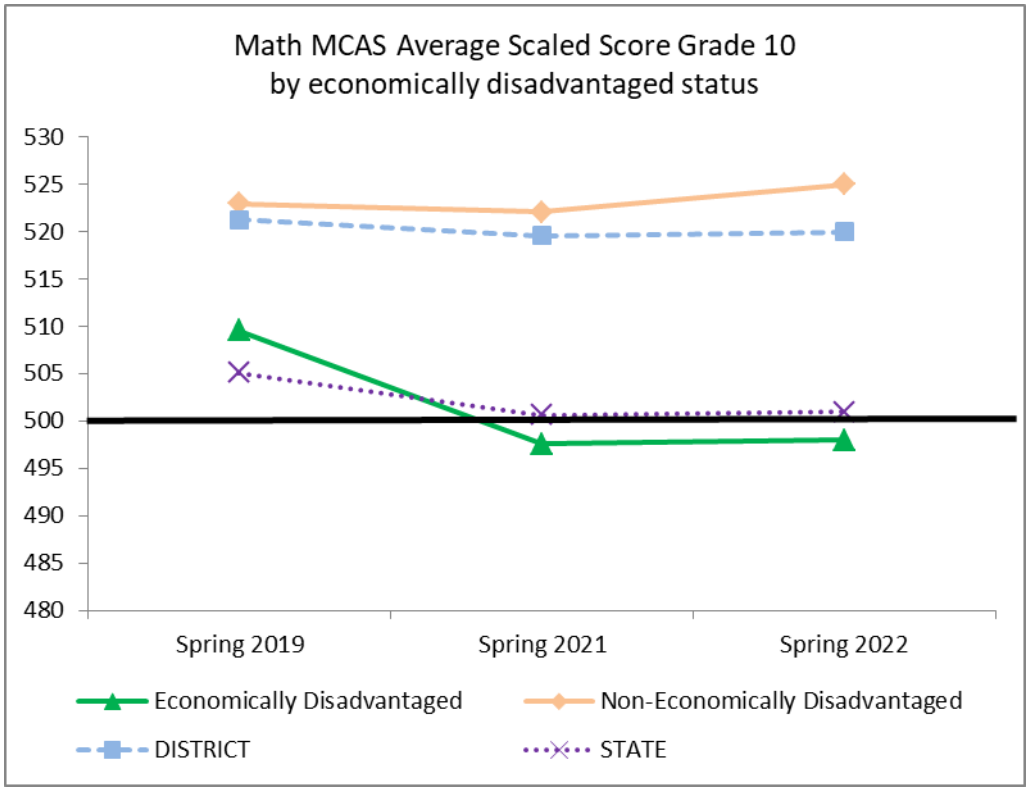


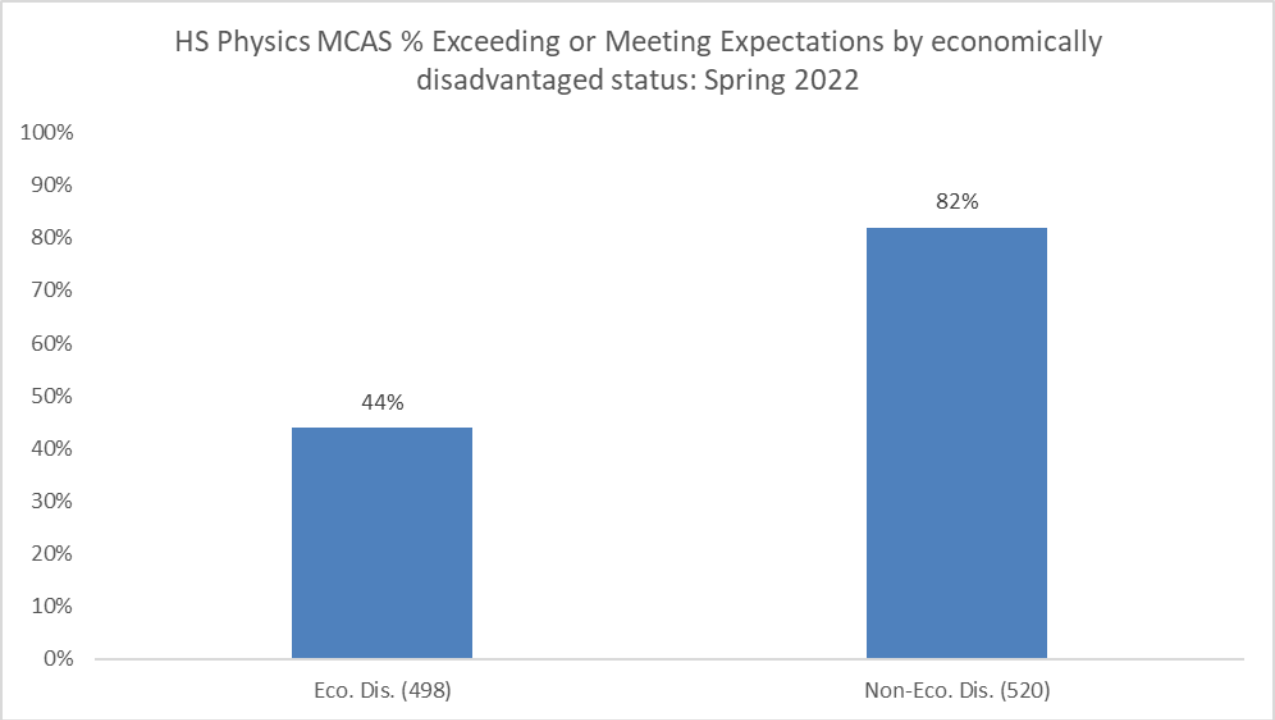
High School: Students by Economically Disadvantaged Status



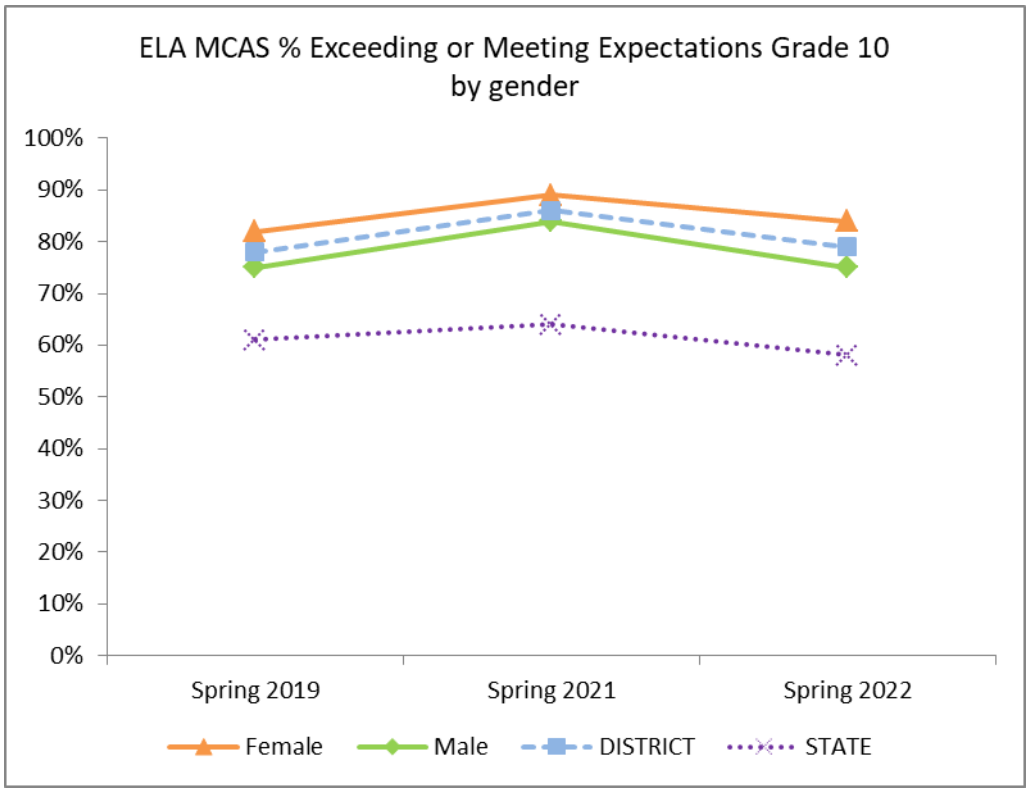

ELA MCAS Average Scaled Score Grade 10
by economically disadvantaged status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

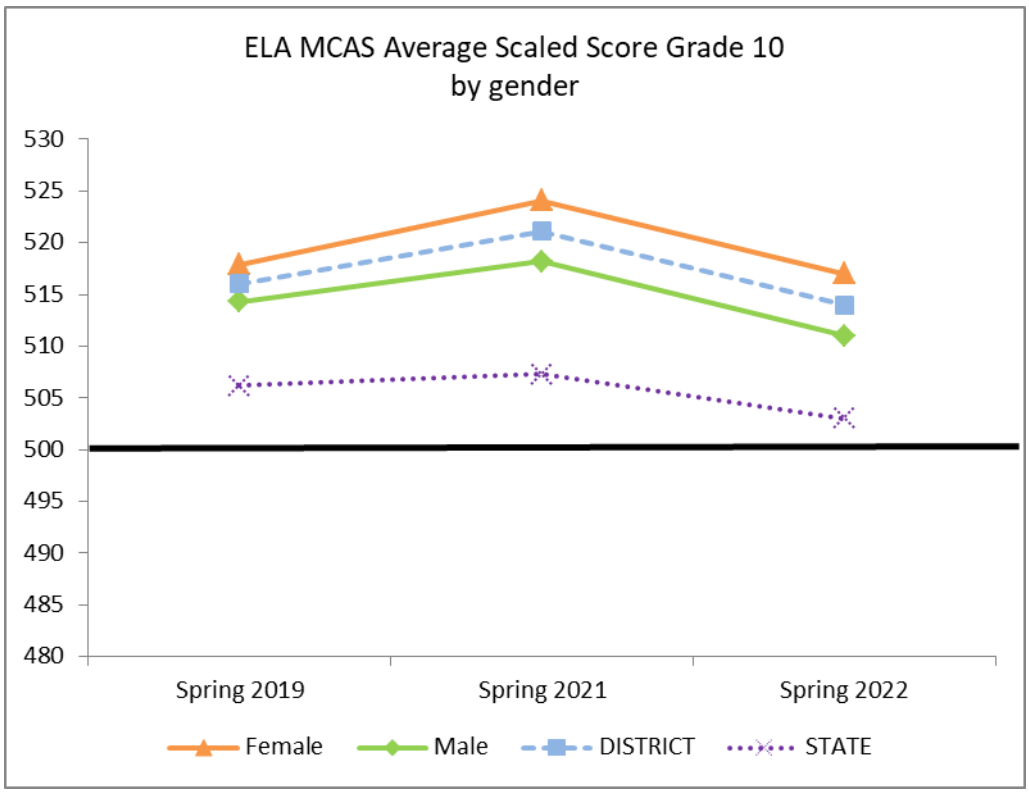

Math MCAS % Exceeding or Meeting Expectations Grade 10
by economically disadvantaged status
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

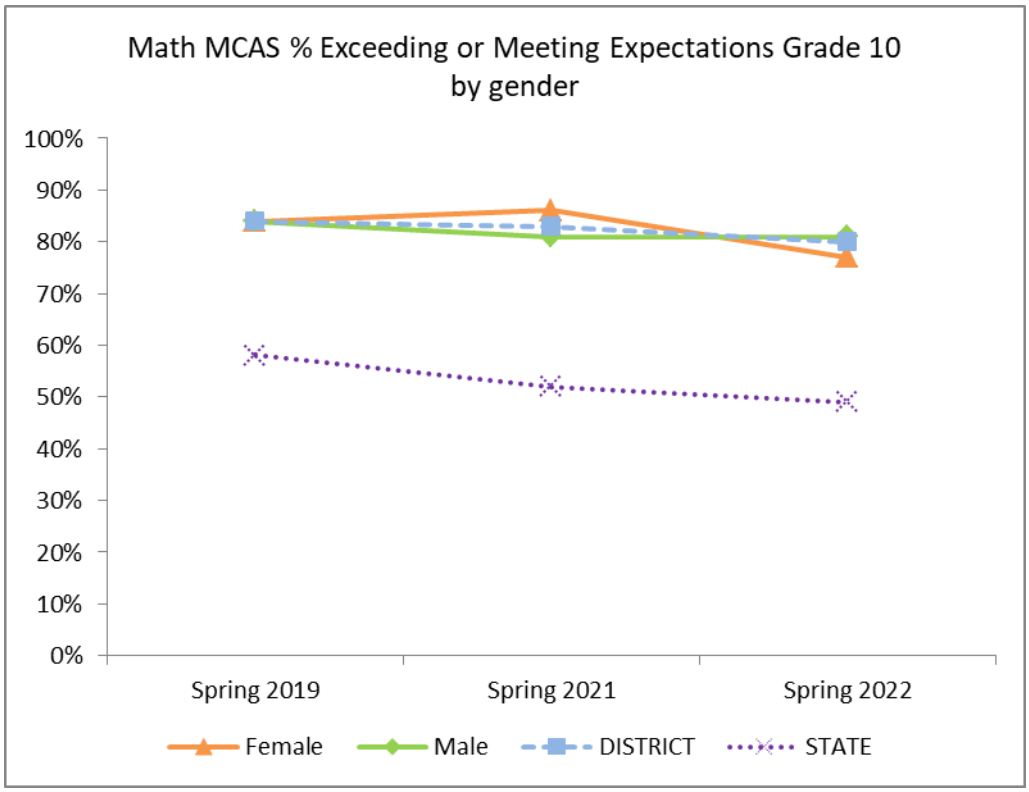

Math MCAS Average Scaled Score Grade 10
by economically disadvantaged status
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Economically Disadvantaged
Non-Economically Disadvantaged
DISTRICT
STATE

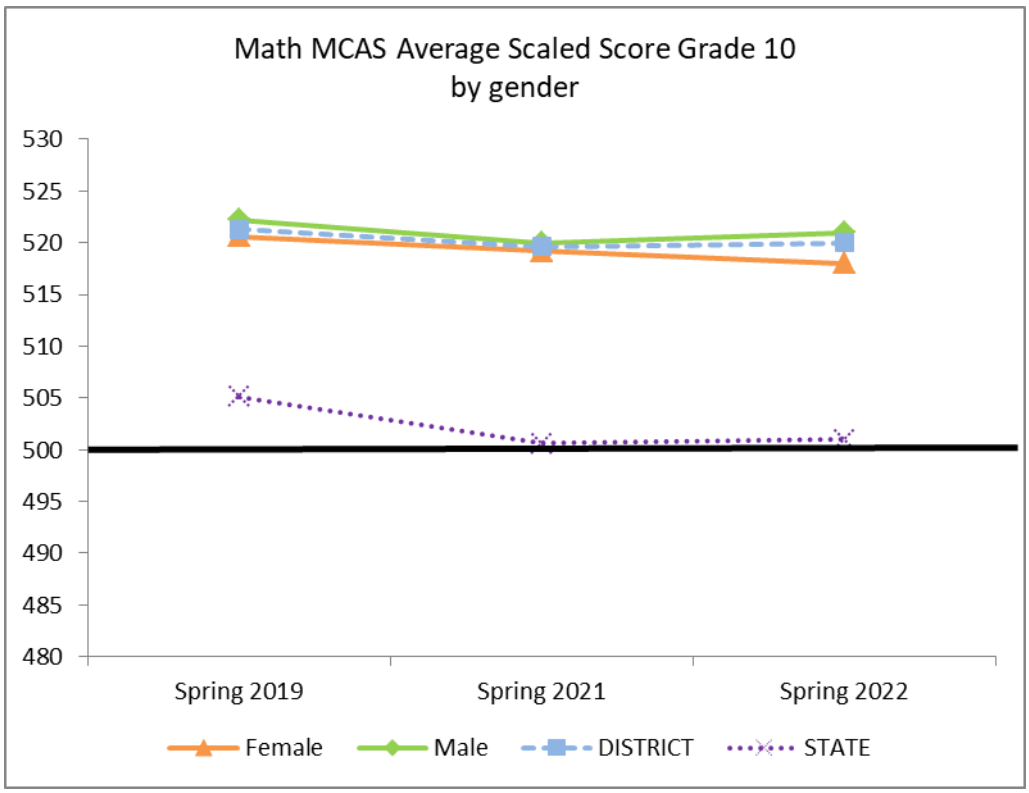


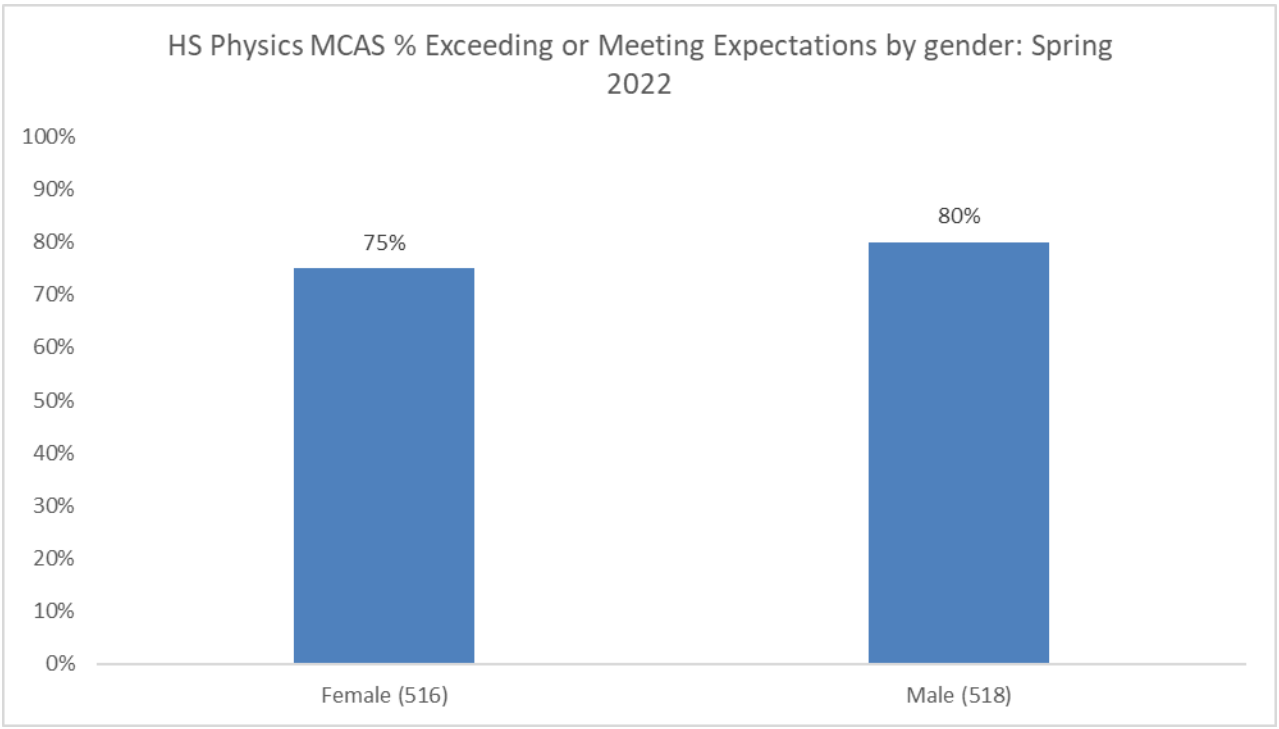
High School: By Gender



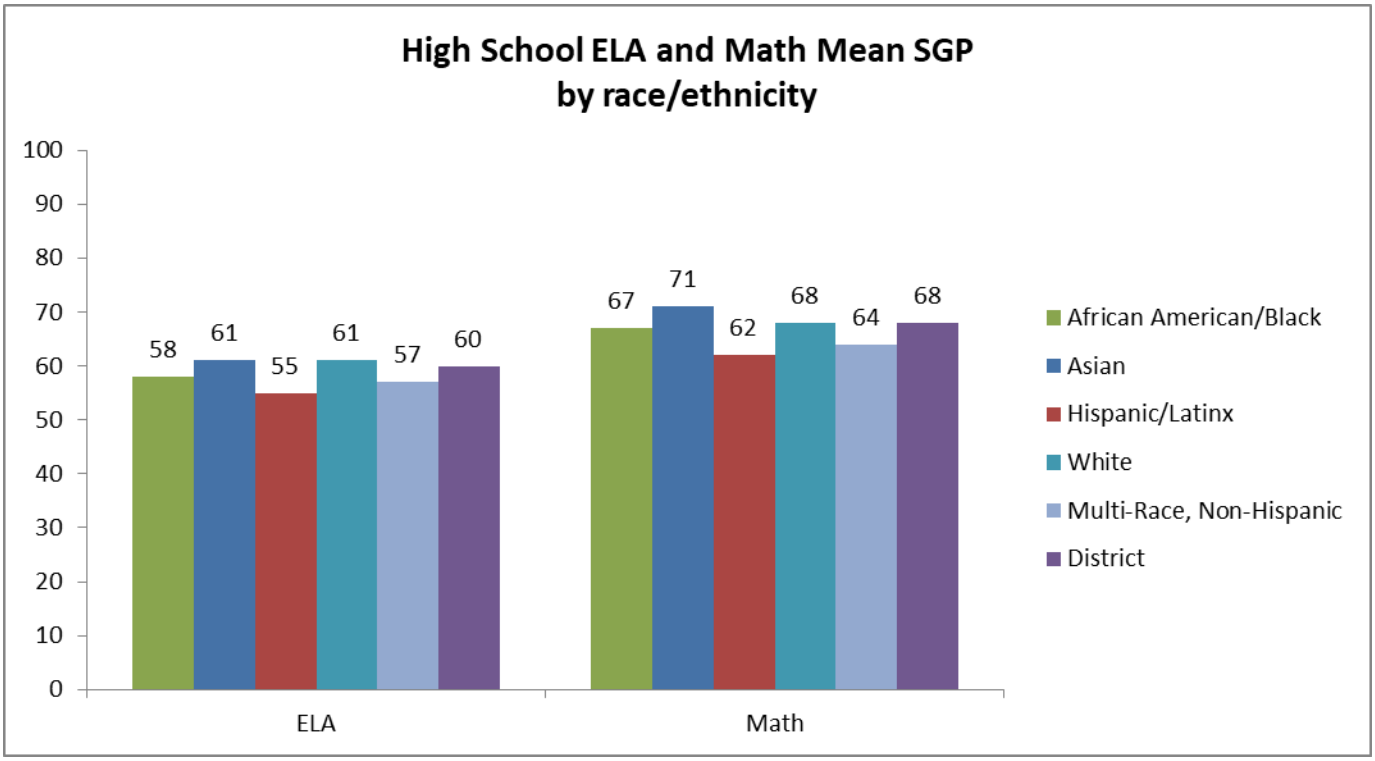

ELA MCAS Average Scaled Score Grade 10
by gender
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE

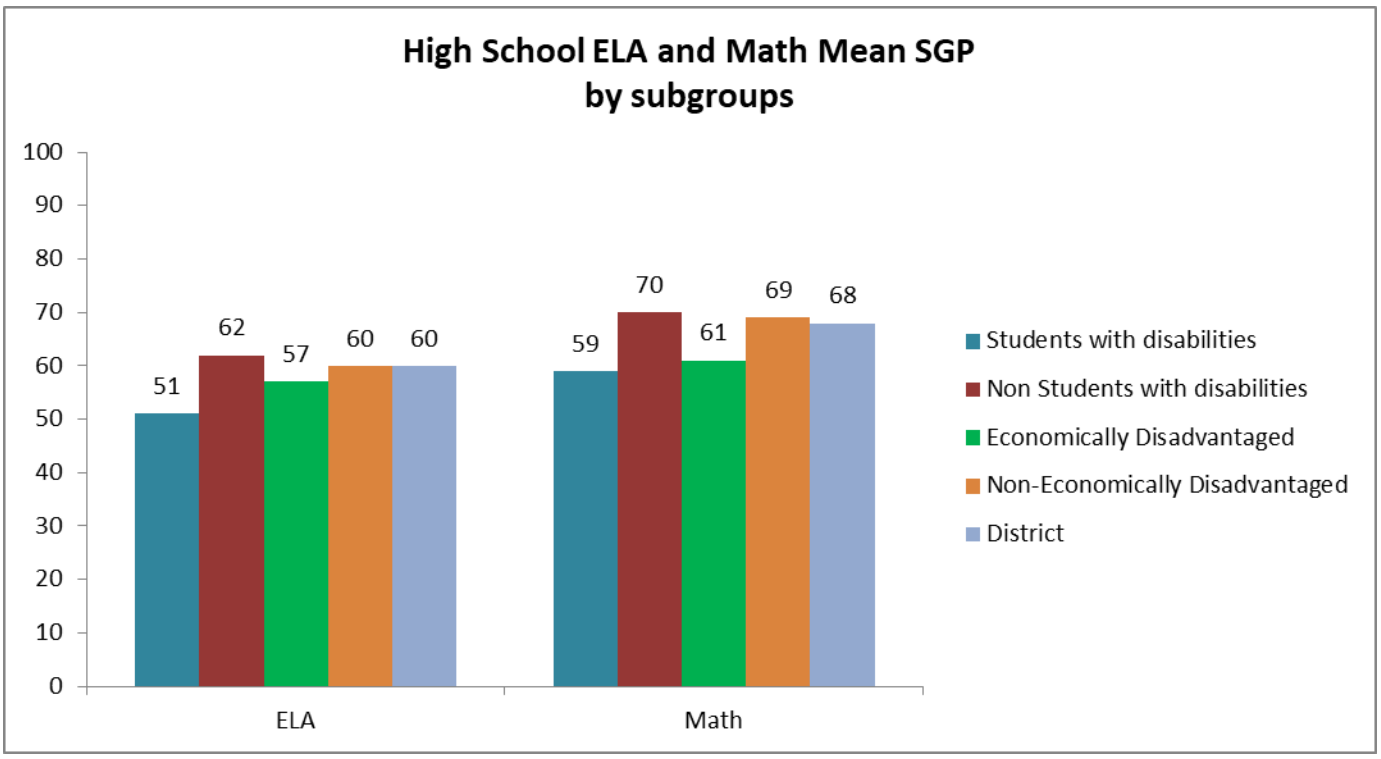

Math MCAS % Exceeding or Meeting Expectations Grade 10
by gender
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE


Math MCAS Average Scaled Score Grade 10
by gender
530
525
520
515
510
505
500
495
490
485
480
Spring 2019
Spring 2021
Spring 2022
Female
Male
DISTRICT
STATE


HS Physics MCAS % Exceeding or Meeting Expectations by gender: Spring 2022
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
75%
80%
Female (516)
Male (518)

High School: Student Growth Percentiles by subgroups



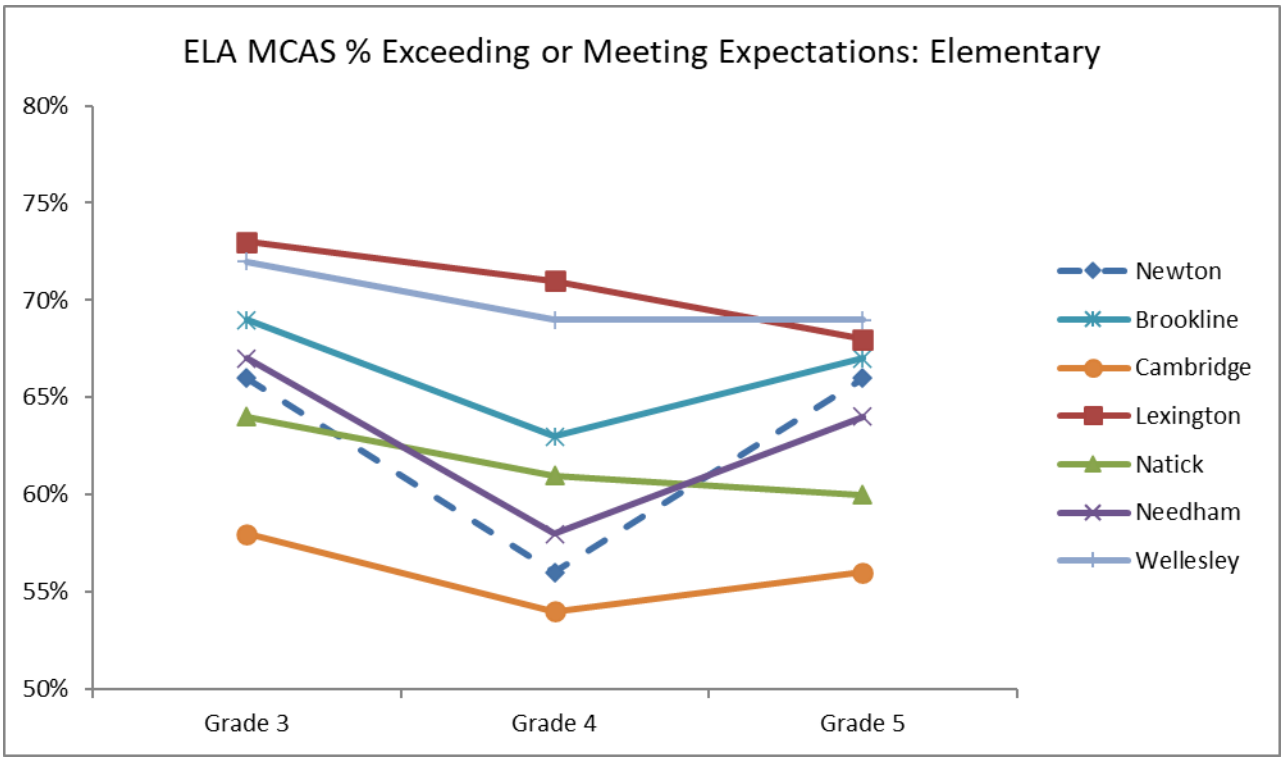


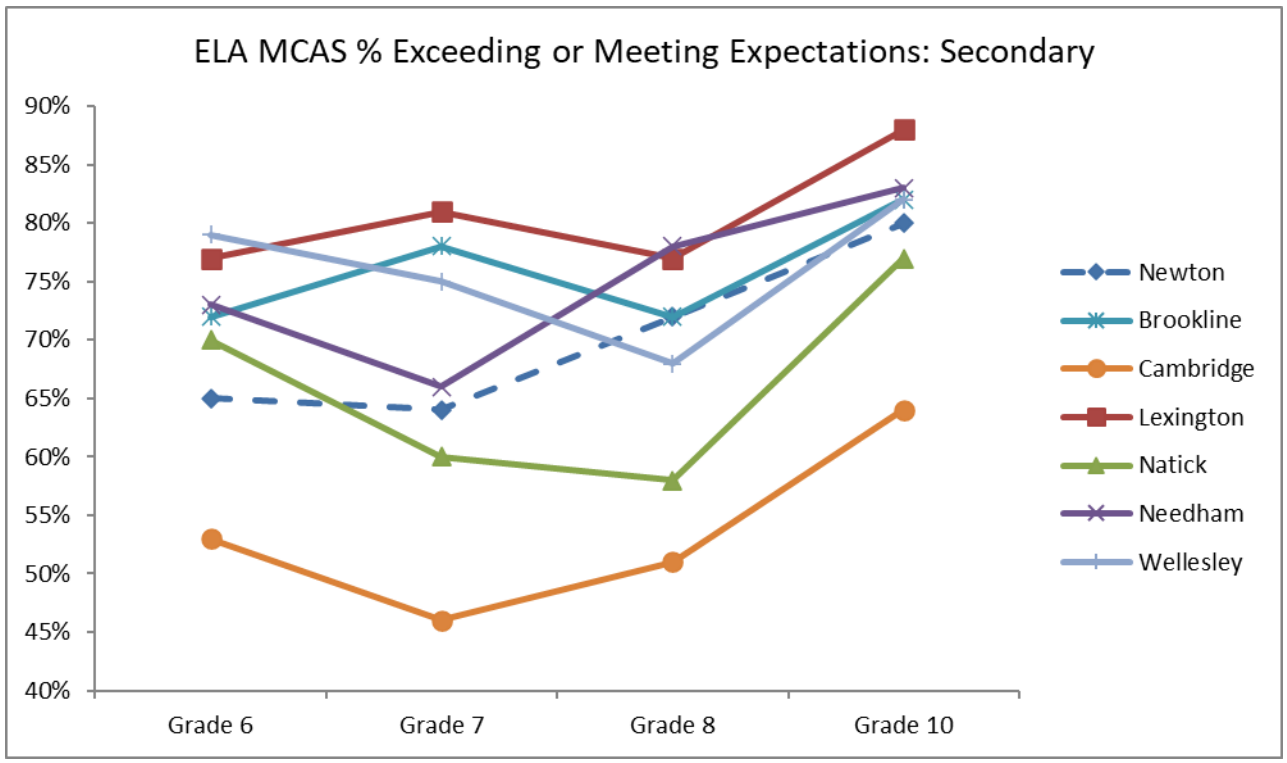
*SGP unavailable for EL students due to small sample size.

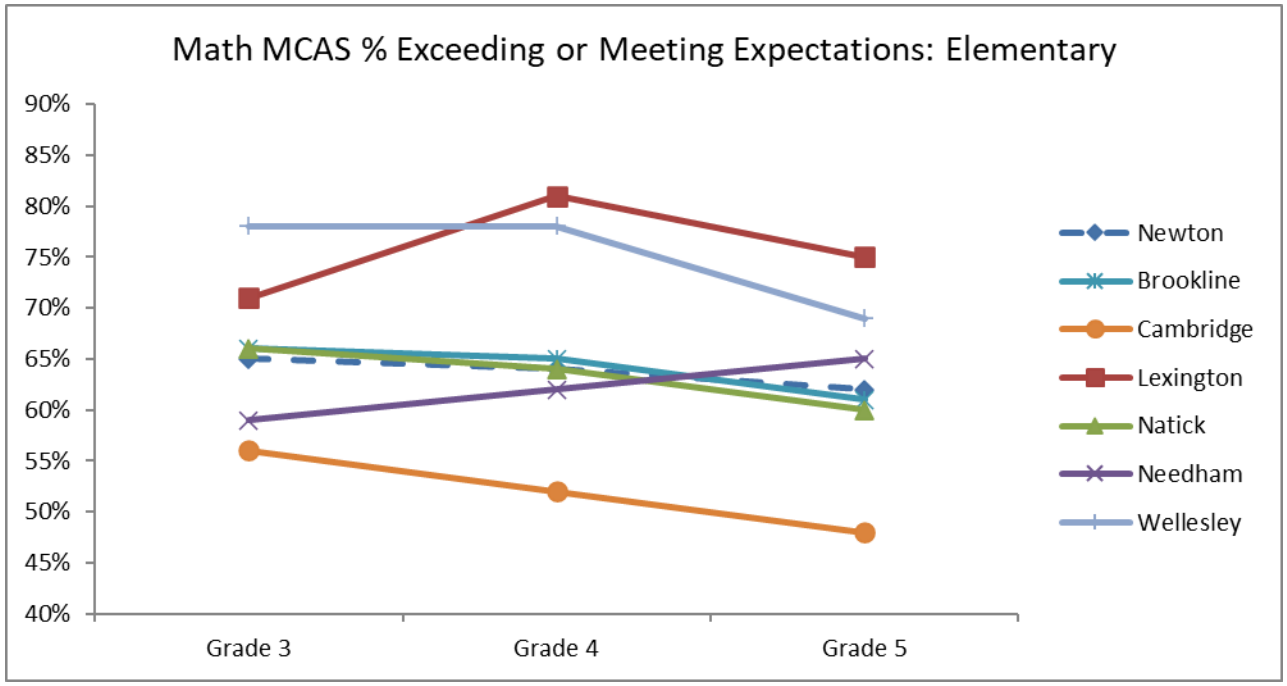
Comparison Districts

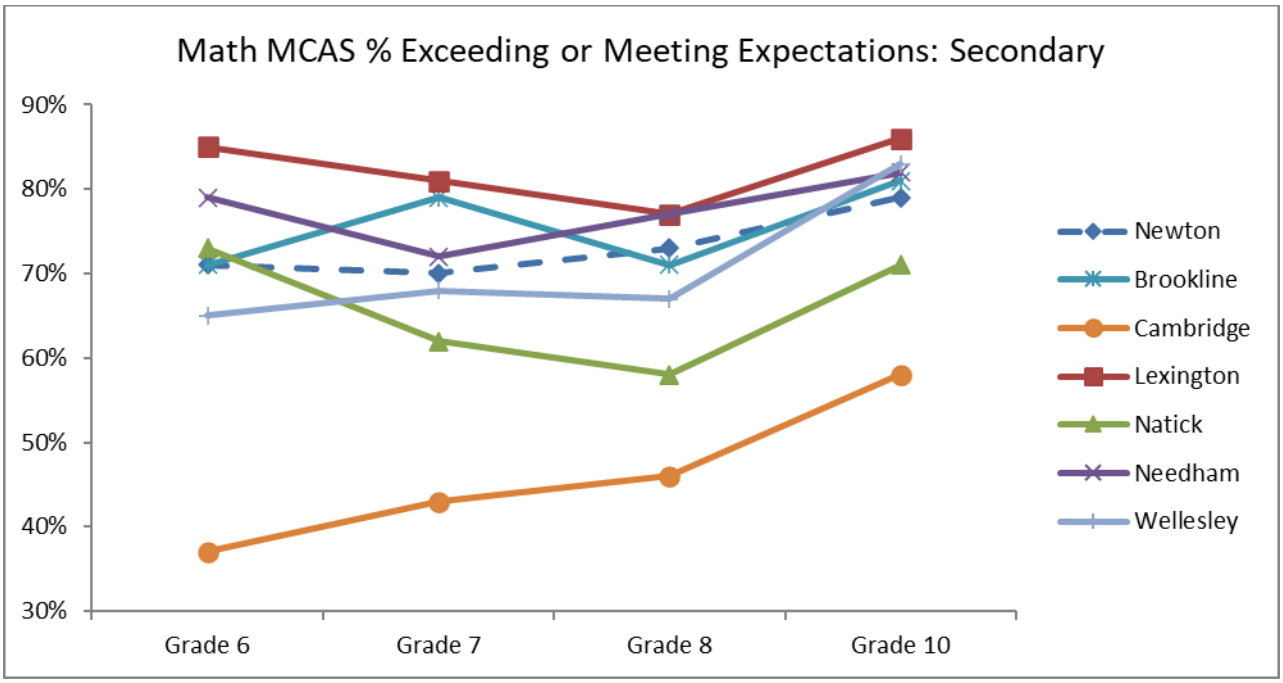
The following graphs display Newton's performance on MCAS by grade and subject, and by subject and subgroup, compared to a set of comparison districts: Brookline, Cambridge, Lexington, Natick, Needham, and Wellesley. Identifying comparison districts for Newton is difficult, given the fact that there are few districts of comparable size to Newton in this region of Massachusetts. The comparison districts in following graphs were identified as serving similar populations of students as Newton, or as a city or town that is near Newton that families may also consider when deciding to move to Newton. Newton's performance is displayed as a dashed line in these graphs to differentiate it from the comparison districts.

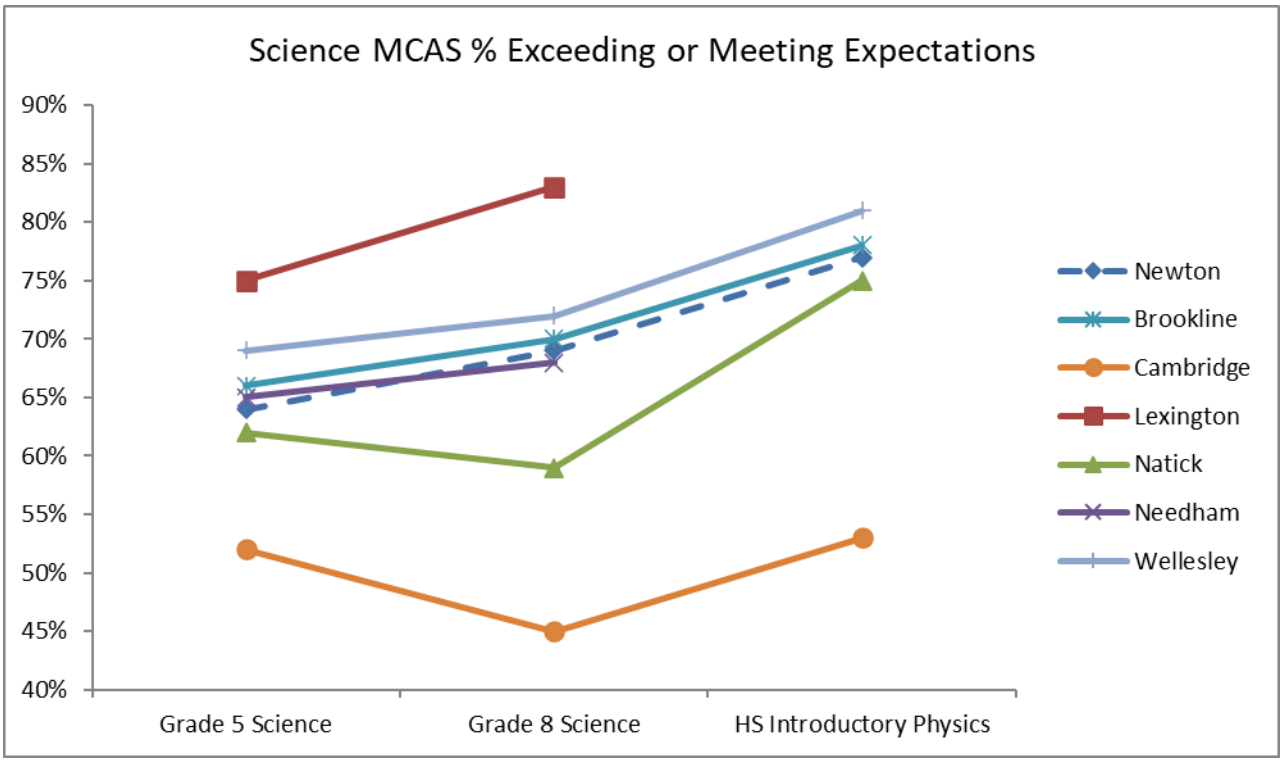
Comparison districts by grade and subject




ELA MCAS % Exceeding or Meeting Expectations: Secondary
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
Grade 6
Grade 7
Grade 8
Grade 10
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

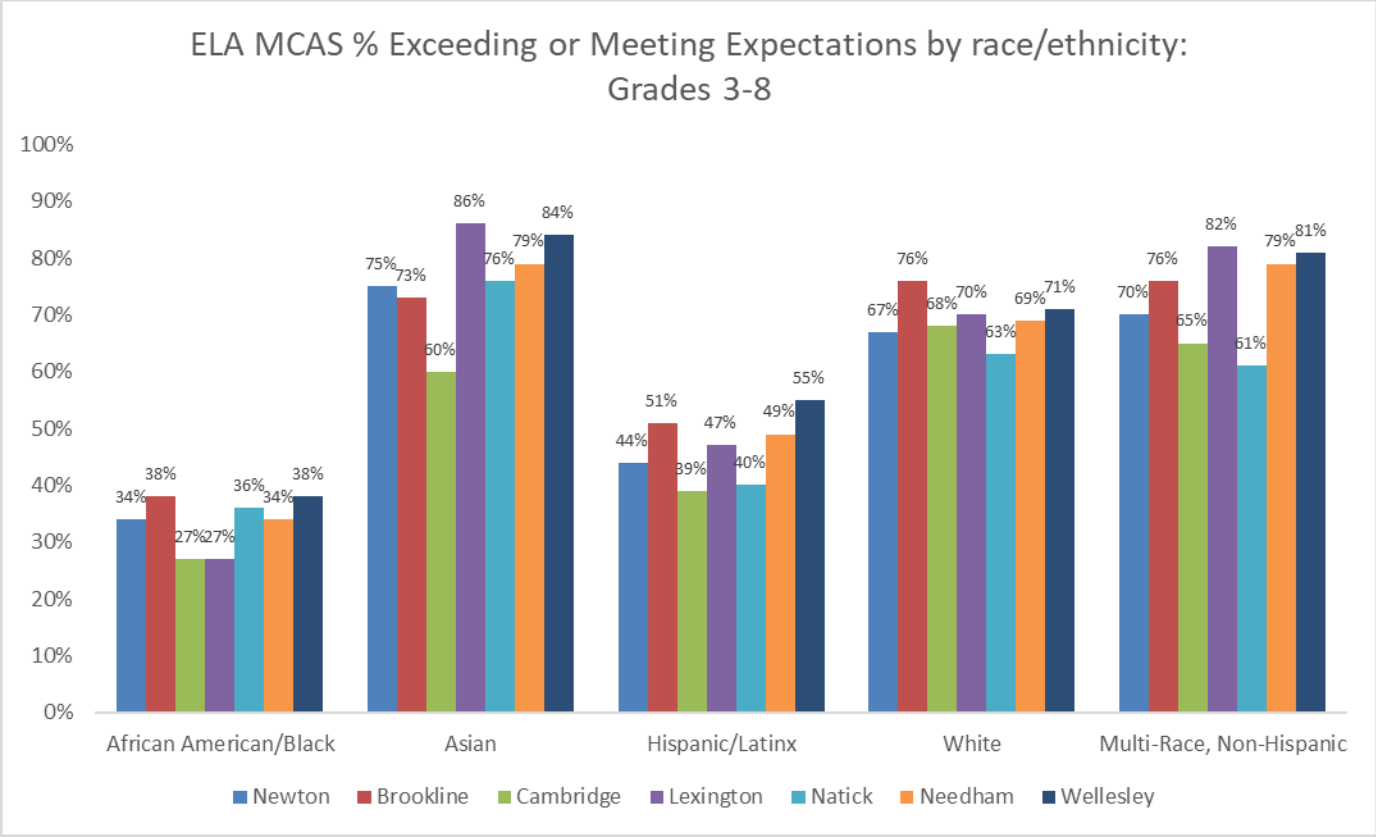

Math MCAS % Exceeding or Meeting Expectations: Elementary
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
Grade 3
Grade 4
Grade 5
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

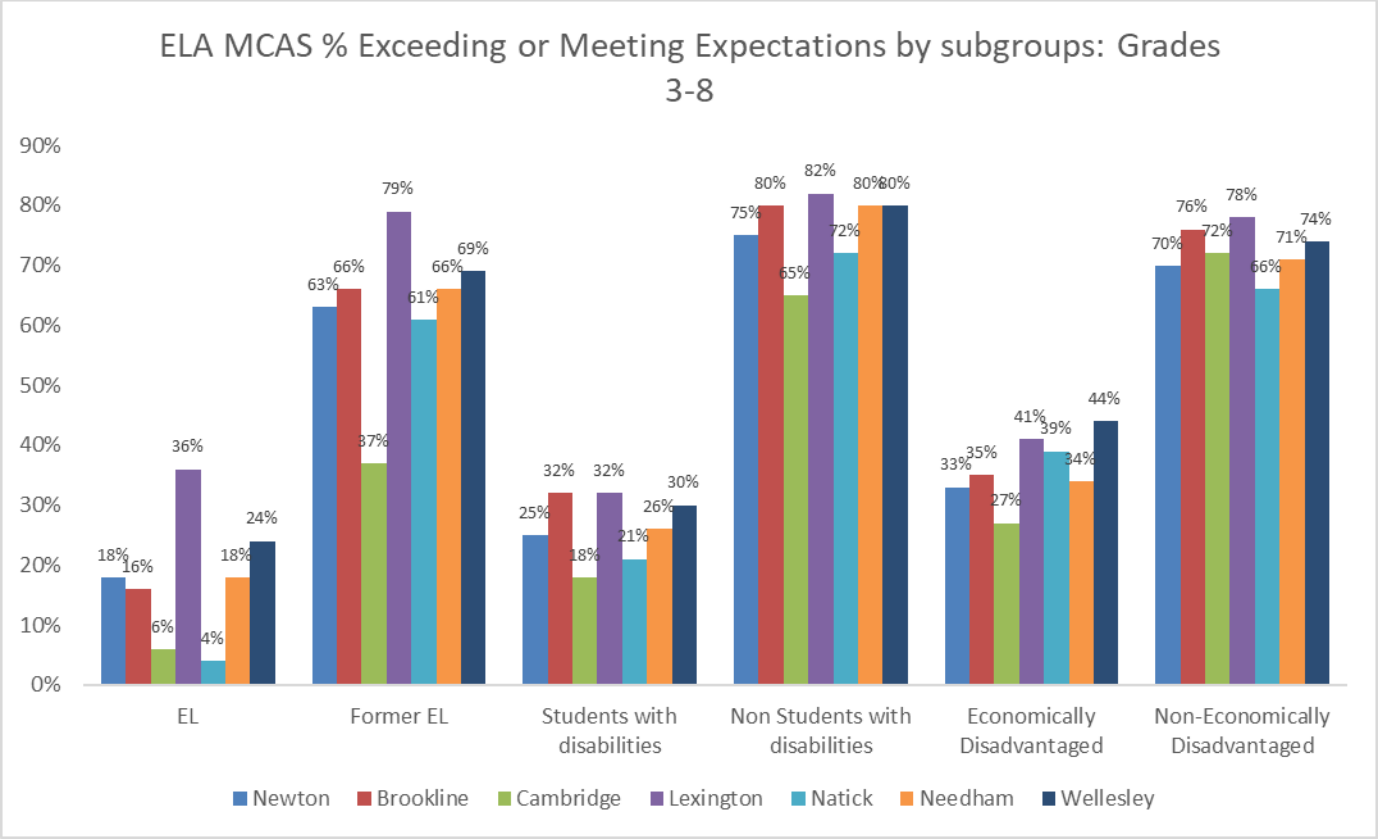


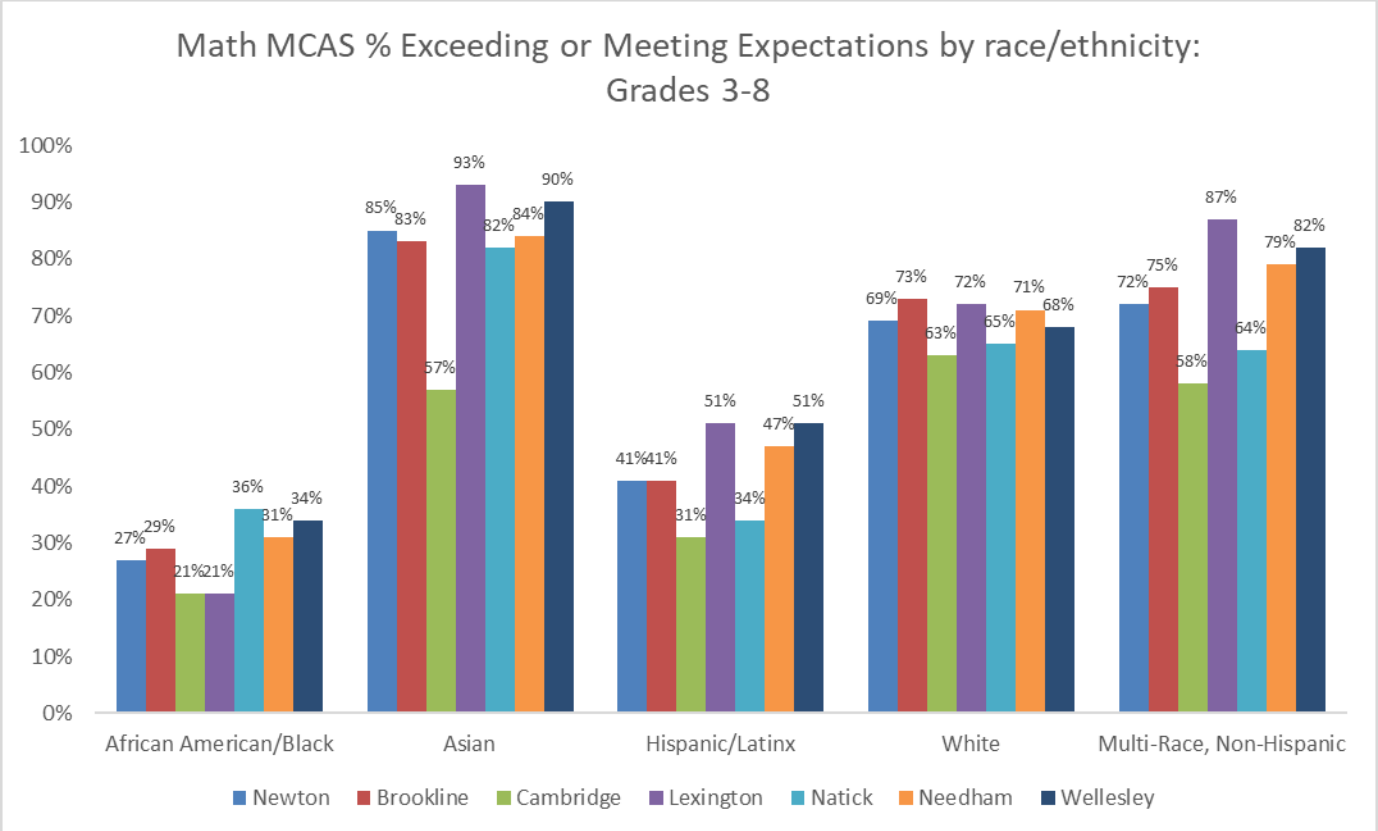


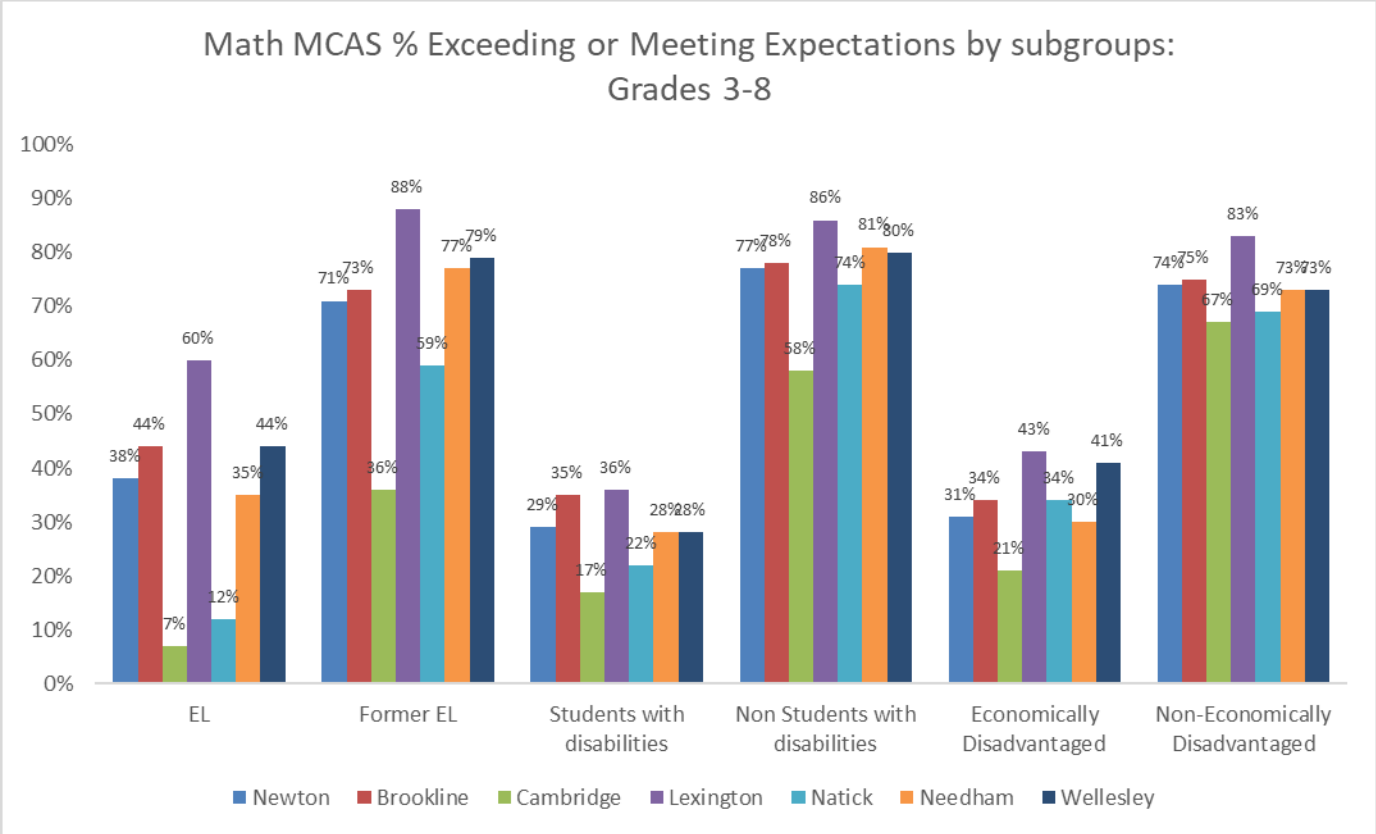
*Students in Lexington and Needham take the Biology test instead of the Physics test in high school and thus are omitted from this graph.

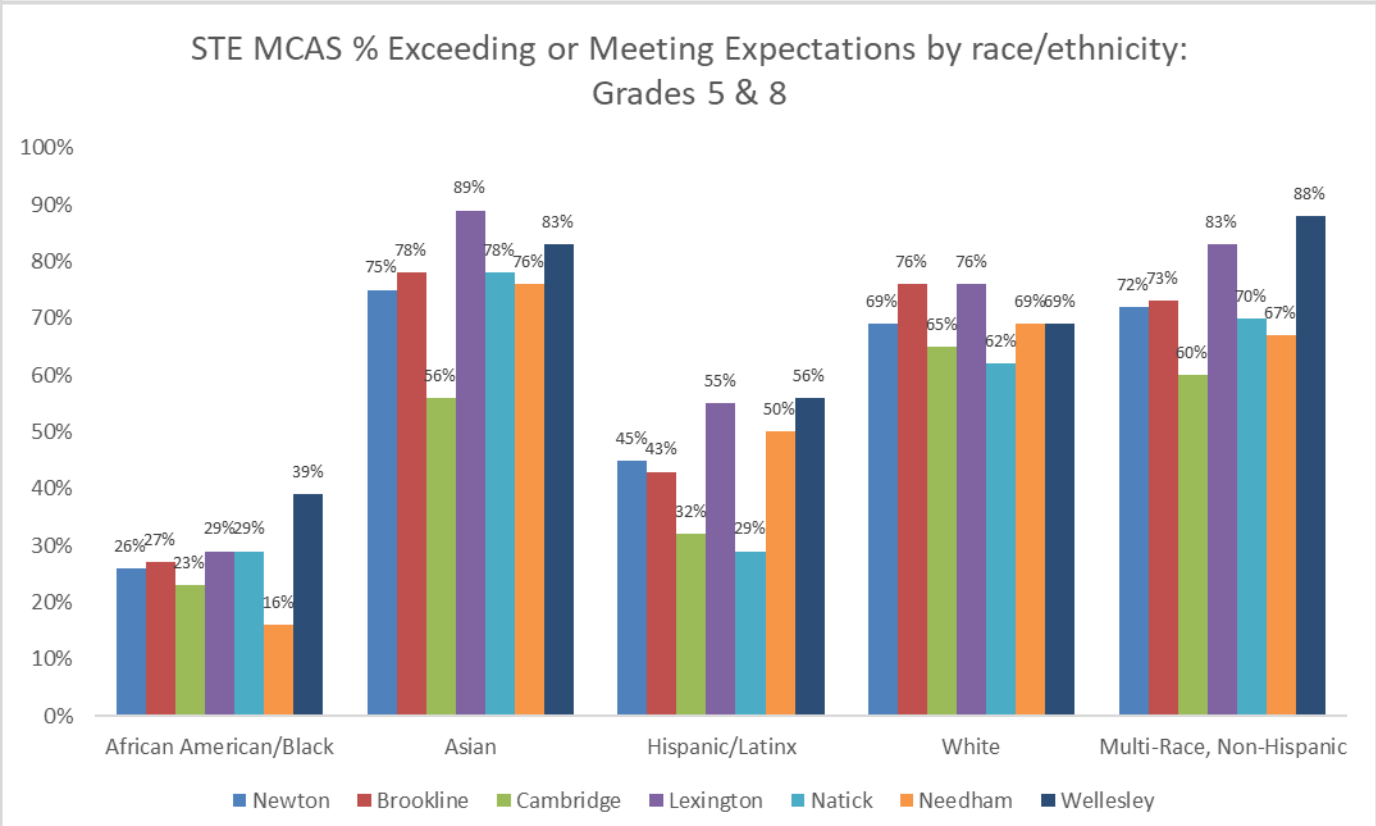
Comparison districts by subgroup and subject

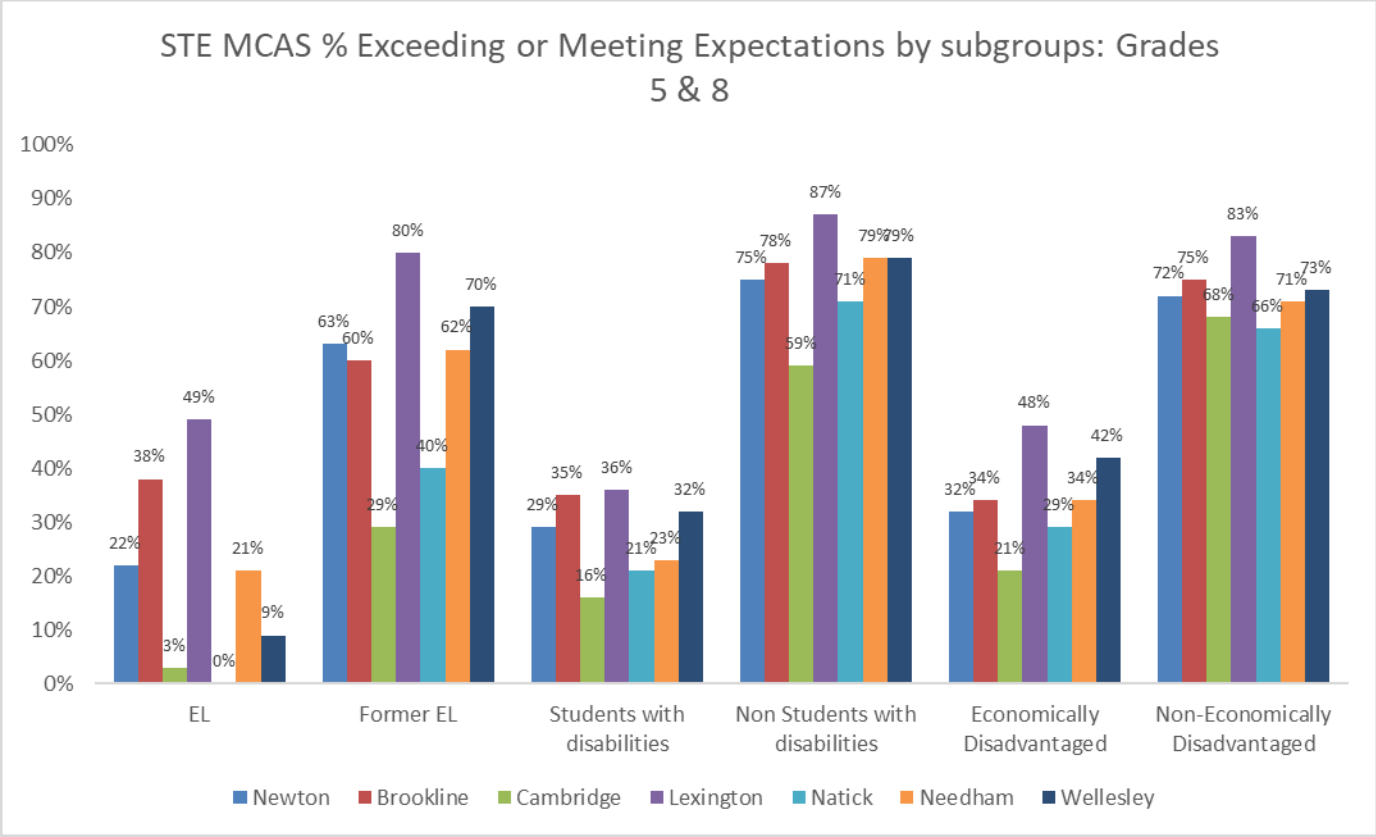


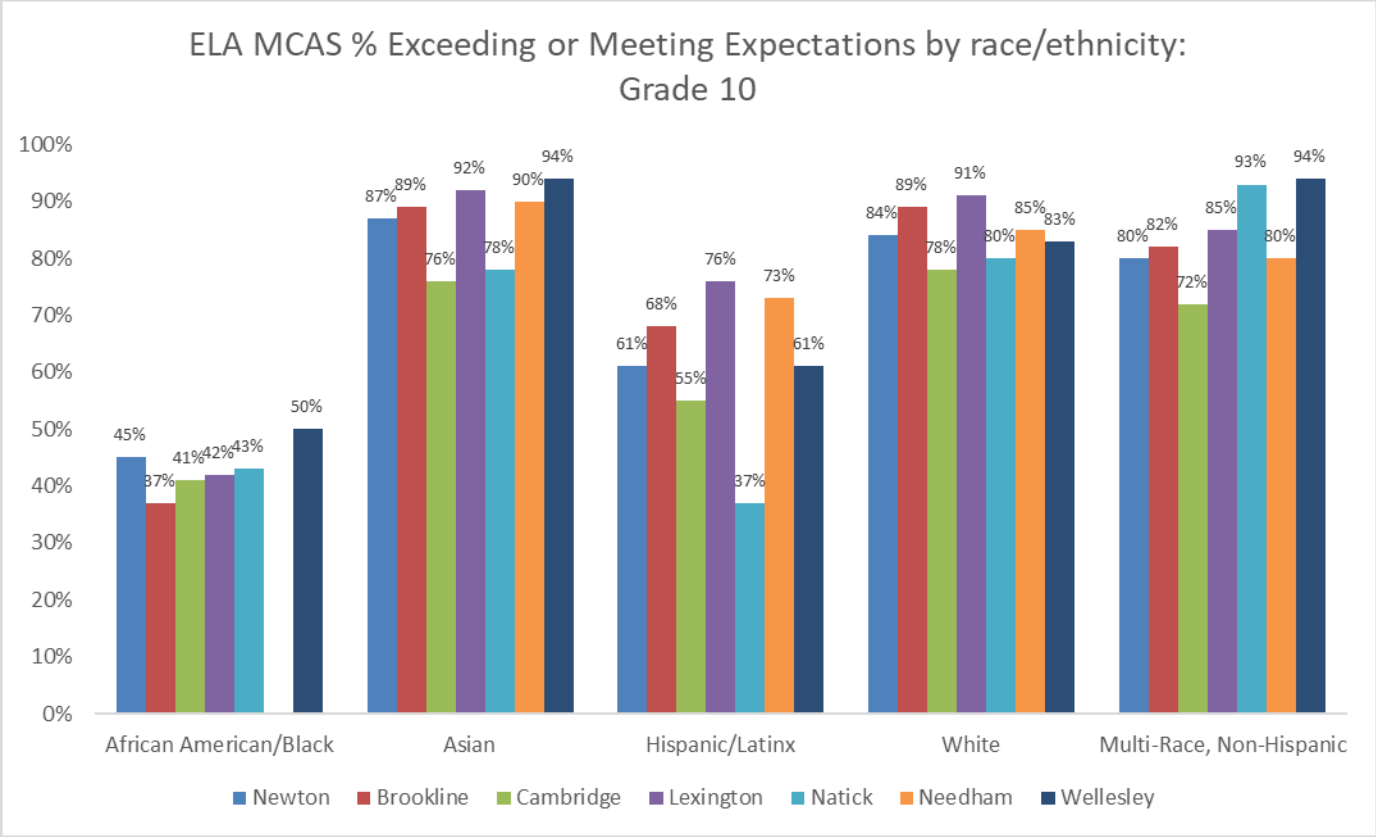

ELA MCAS % Exceeding or Meeting Expectations by subgroups: Grades 3-8
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
18% 16% 6% 36% 4% 18% 24%
63% 66% 37% 79% 61% 66% 69%
25% 32% 18% 32% 21% 26% 30%
75% 80% 65% 82% 72% 80% 80%
33% 35% 27% 41% 39% 34% 44%
70% 76% 72% 78% 66% 71% 74%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

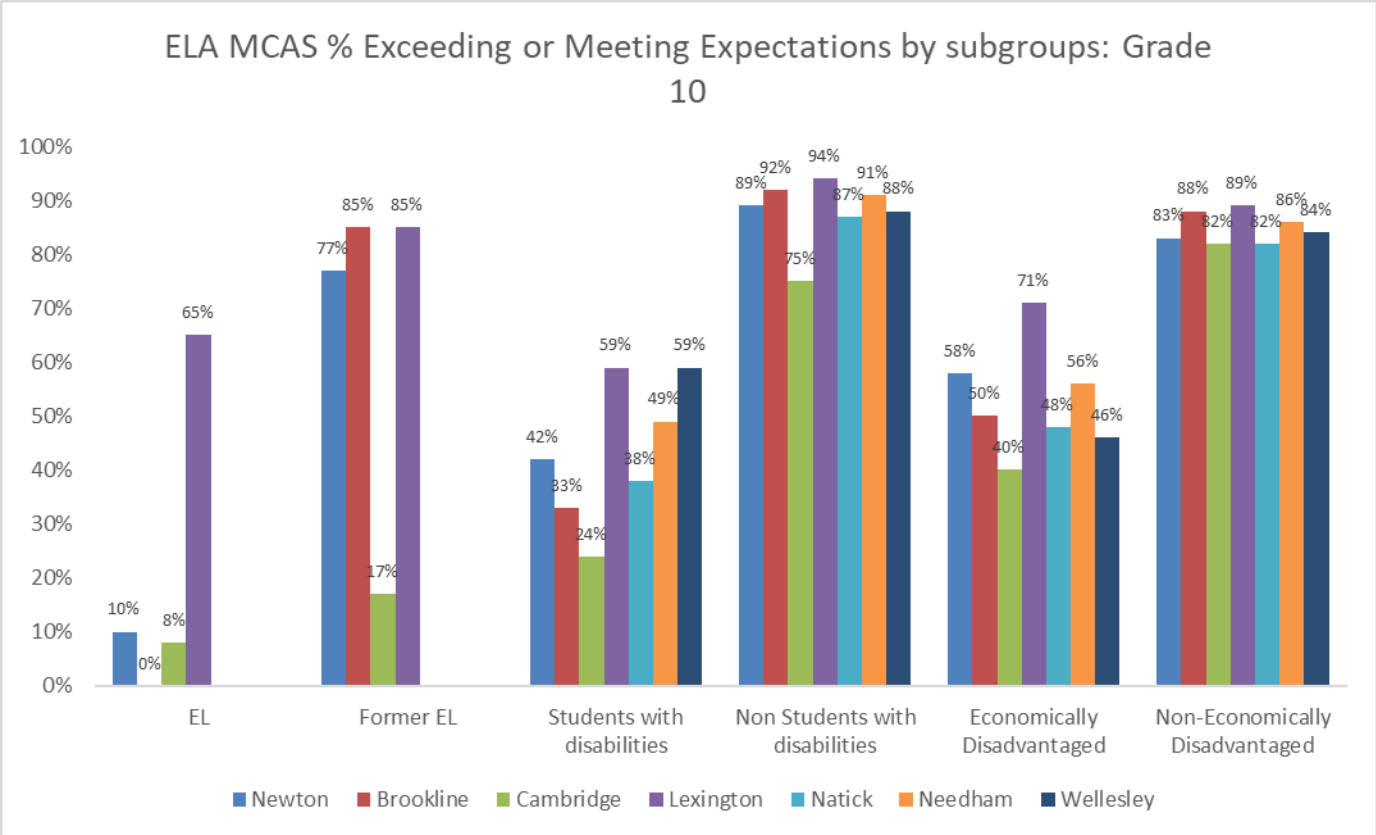

Math MCAS % Exceeding or Meeting Expectations by race/ethnicity: Grades 3-8
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
27% 29% 21% 21% 36% 31% 34%
85% 83% 57% 93% 82% 84% 90%
41% 41% 31% 51% 34% 47% 51%
69% 73% 63% 72% 65% 71% 68%
72% 75% 58% 87% 64% 79% 82%
African American/Black
Asian
Hispanic/Latinx
White
Multi-Race, Non-Hispanic
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

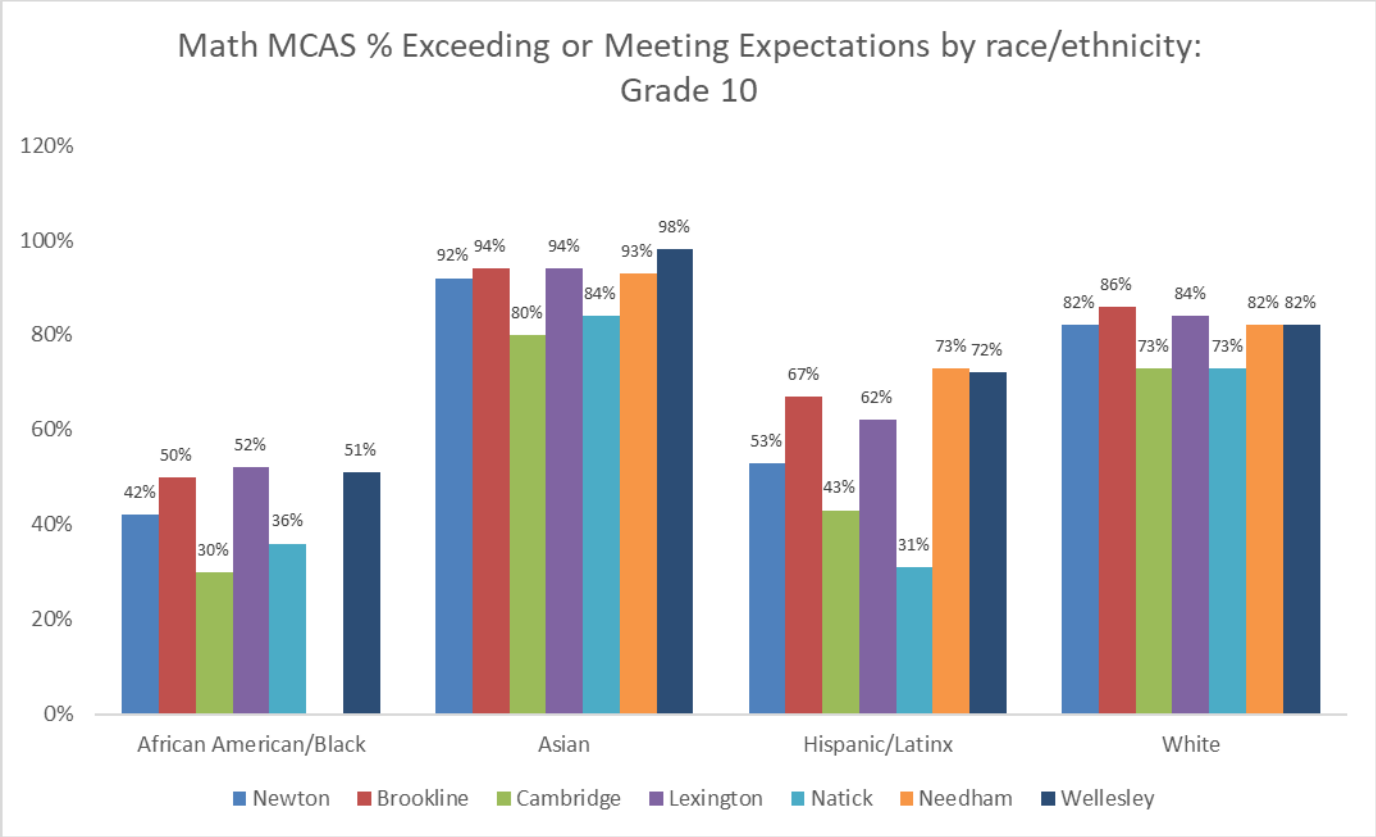

Math MCAS % Exceeding or Meeting Expectations by subgroups:
Grades 3-8
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
38% 44% 7% 60% 12% 35% 44%
71% 73% 36% 88% 59% 77% 79%
29% 35% 17% 36% 22% 28% 28%
77% 78% 58% 86% 74% 81% 80%
31% 34% 21% 43% 34% 30% 41%
74% 75% 67% 83% 69% 73% 73%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

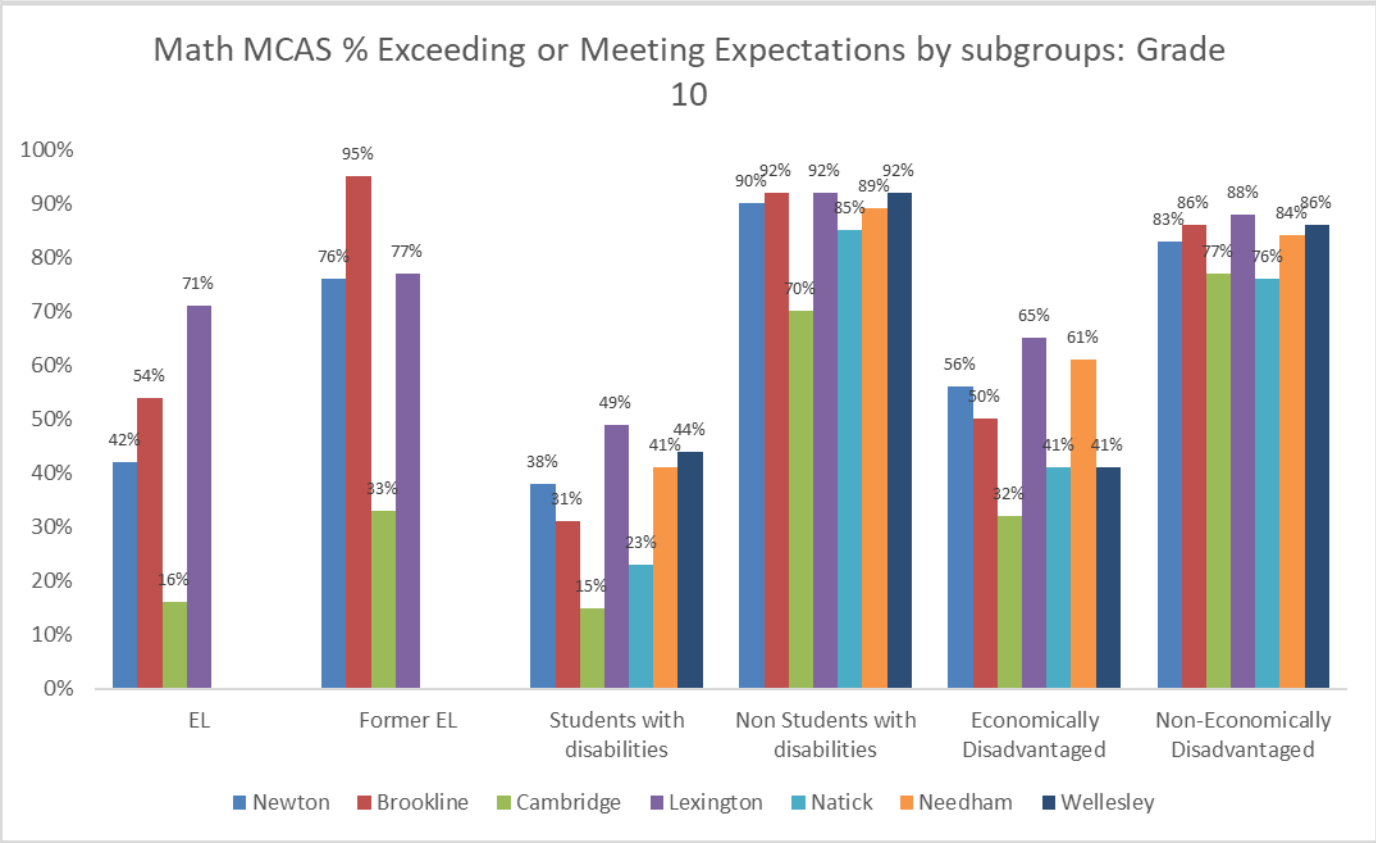

STE MCAS % Exceeding or Meeting Expectations by race/ethnicity:
Grades 5 & 8
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
26% 27% 23% 29% 29% 16% 39%
75% 78% 56% 89% 78% 76% 83%
45% 43% 32% 55% 29% 50% 56%
69% 76% 65% 76% 62% 69% 69%
72% 73% 60% 83% 70% 67% 88%
African American/Black
Asian
Hispanic/Latinx
White
Multi-Race, Non-Hispanic
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

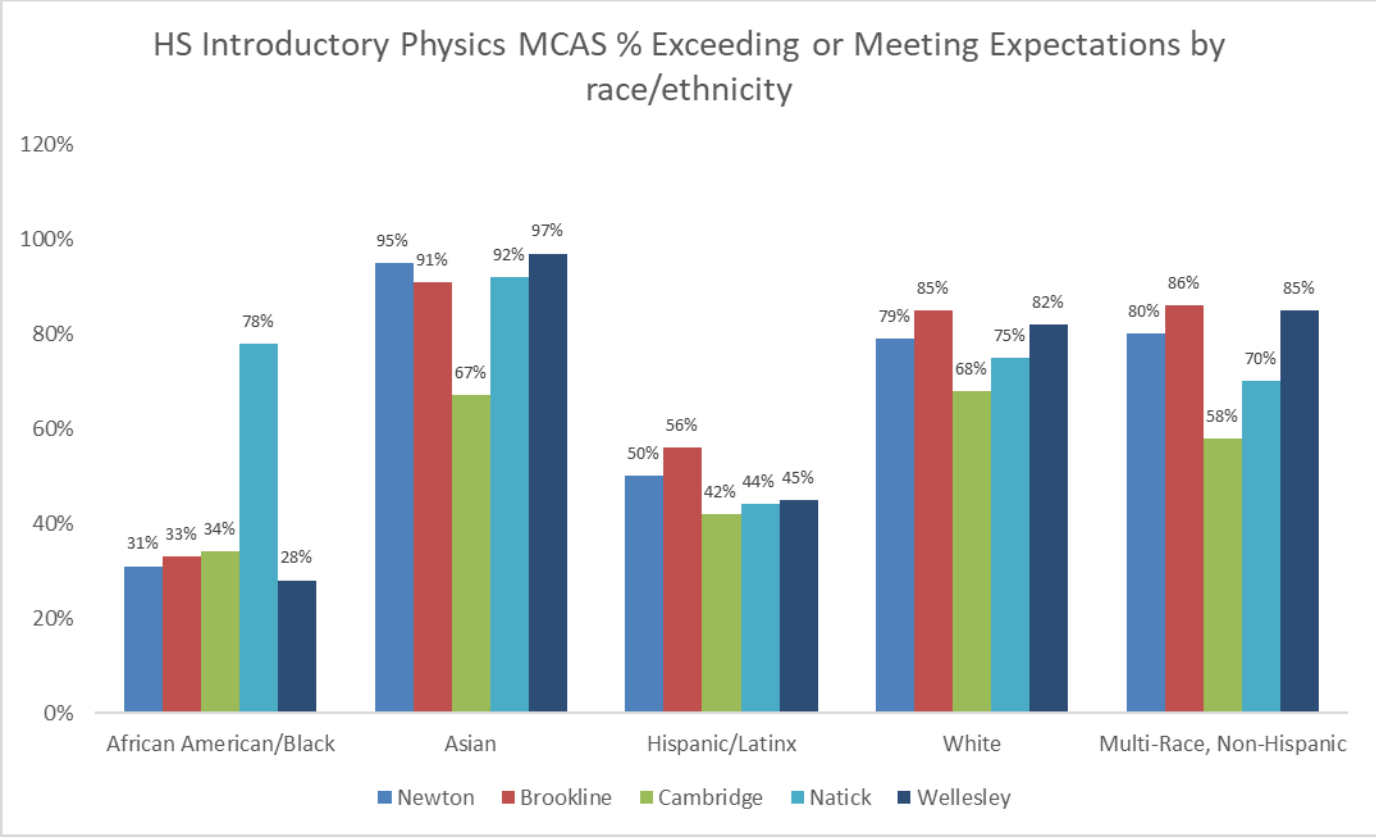

STE MCAS % Exceeding or Meeting Expectations by subgroups: Grades 5 & 8
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
22%
38%
3%
49%
0%
21%
9%
63%
60%
29%
80%
40%
62%
70%
29%
35%
16%
36%
21%
23%
32%
75%
78%
59%
87%
71%
79%
79%
32%
34%
21%
48%
29%
34%
42%
72%
75%
68%
83%
66%
71%
73%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley

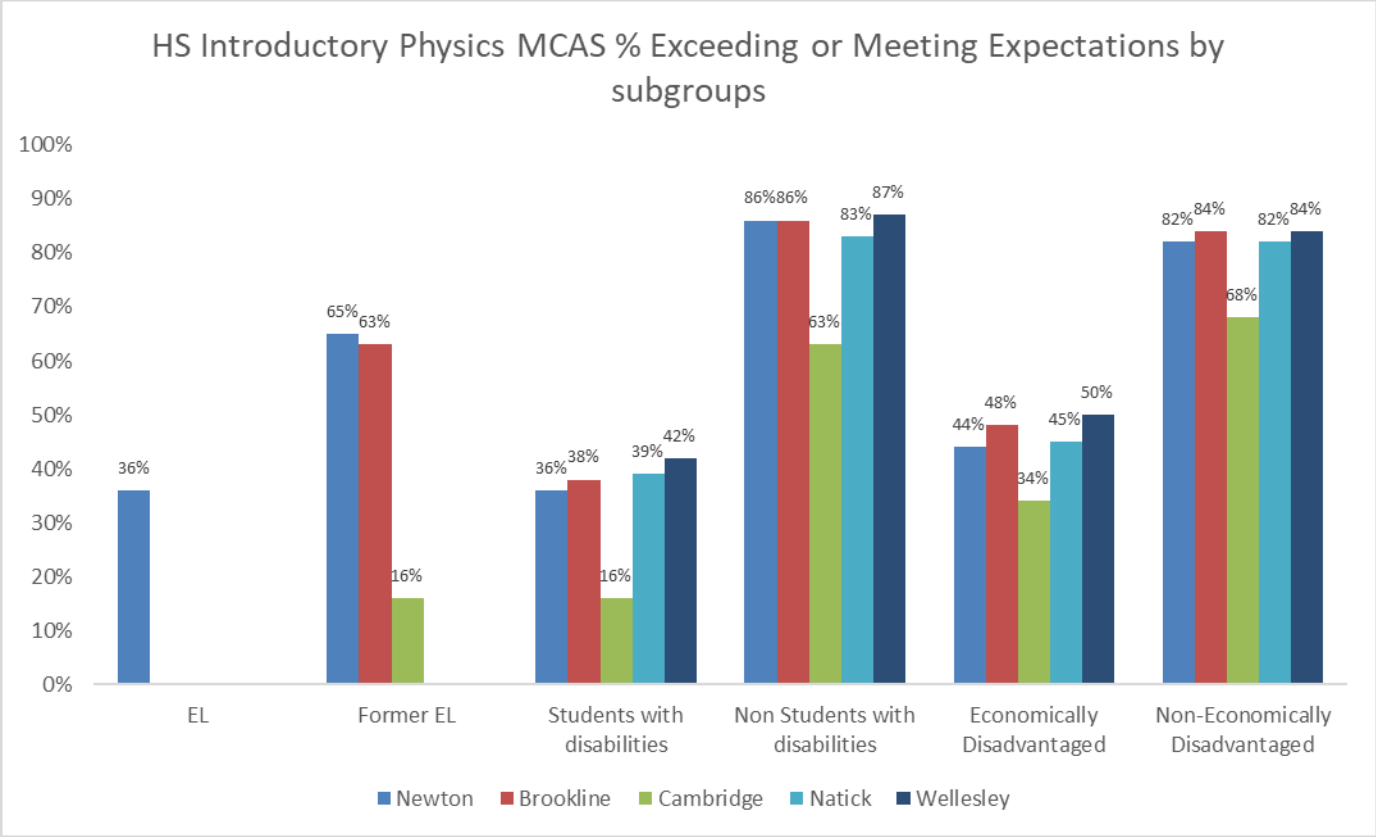

ELA MCAS % Exceeding or Meeting Expectations by race/ethnicity: Grade 10
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
45%
37%
41%
42%
43%
50%
87%
89%
76%
92%
78%
90%
94%
61%
68%
55%
76%
37%
73%
61%
84%
89%
78%
91%
80%
85%
83%
80%
82%
72%
85%
93%
80%
94%
African American/Black
Asian
Hispanic/Latinx
White
Multi-Race, Non-Hispanic
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley


ELA MCAS % Exceeding or Meeting Expectations by subgroups: Grade 10
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
10%
0%
8%
65%
77%
85%
17%
85%
42%
33%
24%
59%
38%
49%
59%
89%
92%
75%
94%
87%
91%
88%
58%
50%
40%
71%
48%
56%
46%
83%
88%
82%
89%
82%
86%
84%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton
Brookline
Cambridge
Lexington
Natick
Needham
Wellesley


Math MCAS % Exceeding or Meeting Expectations by race/ethnicity: Grade 10
120%
100%
80%
60%
40%
20%
0%
42% 50% 30% 52% 36% 51%
92% 94% 80% 94% 84% 93% 98%
53% 67% 43% 62% 31% 73% 72%
82% 86% 73% 84% 73% 82% 82%
African American/Black
Asian
Hispanic/Latinx
White
Newton Brookline Cambridge Lexington Natick Needham Wellesley


Math MCAS % Exceeding or Meeting Expectations by subgroups: Grade 10
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
42% 54% 16% 71%
76% 95% 33% 77%
38% 31% 15% 49% 23% 41% 44%
90% 92% 70% 92% 85% 89% 92%
56% 50% 32% 65% 41% 61% 41%
83% 86% 77% 88% 76% 84% 86%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton Brookline Cambridge Lexington Natick Needham Wellesley


HS Introductory Physics MCAS % Exceeding or Meeting Expectations by race/ethnicity
120%
100%
80%
60%
40%
20%
0%
31%
33%
34%
78%
28%
95%
91%
67%
92%
97%
50%
56%
42%
44%
45%
79%
85%
68%
75%
82%
80%
86%
58%
70%
85%
African American/Black
Asian
Hispanic/Latinx
White
Multi-Race, Non-Hispanic
Newton
Brookline
Cambridge
Natick
Wellesley


HS Introductory Physics MCAS % Exceeding or Meeting Expectations by subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
36%
65%
63%
16%
36%
38%
16%
39%
42%
86%
86%
63%
83%
87%
44%
48%
34%
45%
50%
82%
84%
68%
82%
84%
EL
Former EL
Students with disabilities
Non Students with disabilities
Economically Disadvantaged
Non-Economically Disadvantaged
Newton
Brookline
Cambridge
Natick
Wellesley

Cohort Analysis

The following analysis focuses on a comparison of students who have been enrolled in Newton Public Schools and taken the MCAS every year since grade 3 compared to all students in their grade level who took the MCAS in Spring 2022. This analysis allows for comparison of MCAS performance on the Spring 2022 assessments for students who have been consistently enrolled in NPS and those who enter at different points. As the table below shows, between 80-90% of students in grades 4-8 who took the MCAS in Spring 2022 are included in their grade level cohort. The grade 10 cohort is smaller, with approximately 70% of students who took the Spring 2022 assessment included in the cohort. Grade 3 is not included in this analysis because they took the MCAS for the first time in Spring 2022.

Subject & Grade level	Students in cohort	Total students in 2022	% in cohort
ELA			
4	777	846	92%
5	853	905	94%
6	726	868	84%
7	785	971	81%
8	748	928	81%
10	642	937	69%
Math			
4	777	845	92%
5	853	910	94%
6	726	864	84%
7	785	971	81%
8	748	926	81%
10	644	923	70%

In general, performance between the grade level cohort and the entire grade level in Spring 2022 is very similar. There are specific groups for whom consistent enrollment in Newton Public Schools appears to be related to an increase in performance level on the MCAS. The bullets below list the subgroups where the cohort percentage scoring E/M was higher than the subgroup in that grade overall.

Grade 6

- ELA: Male students (62% versus 58%)
- Math: Hispanic/Latinx students (42% versus 38%)

Grade 7

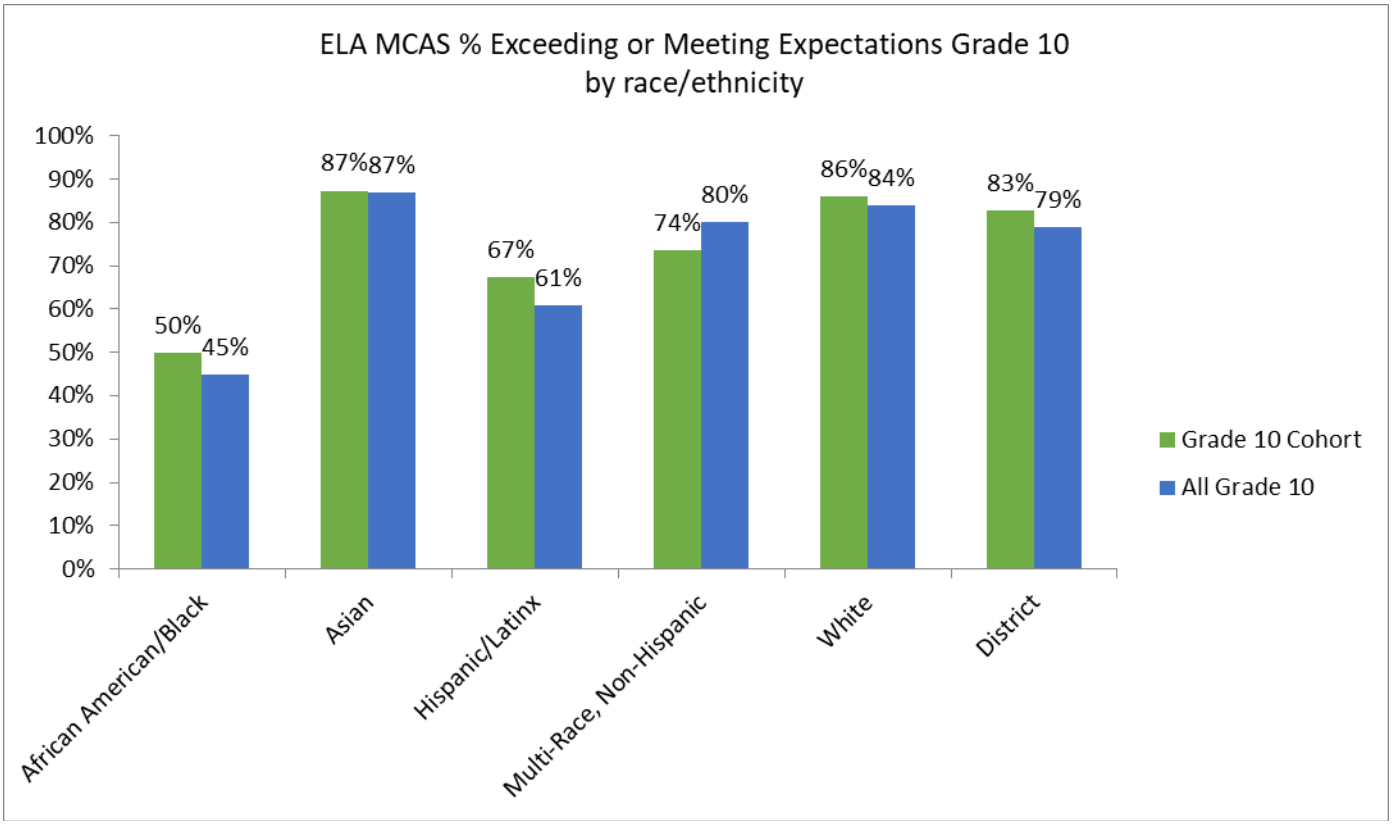
- ELA: Hispanic/Latinx students (60% versus 54%)
- Math: Hispanic/Latinx students (54% versus 42%);

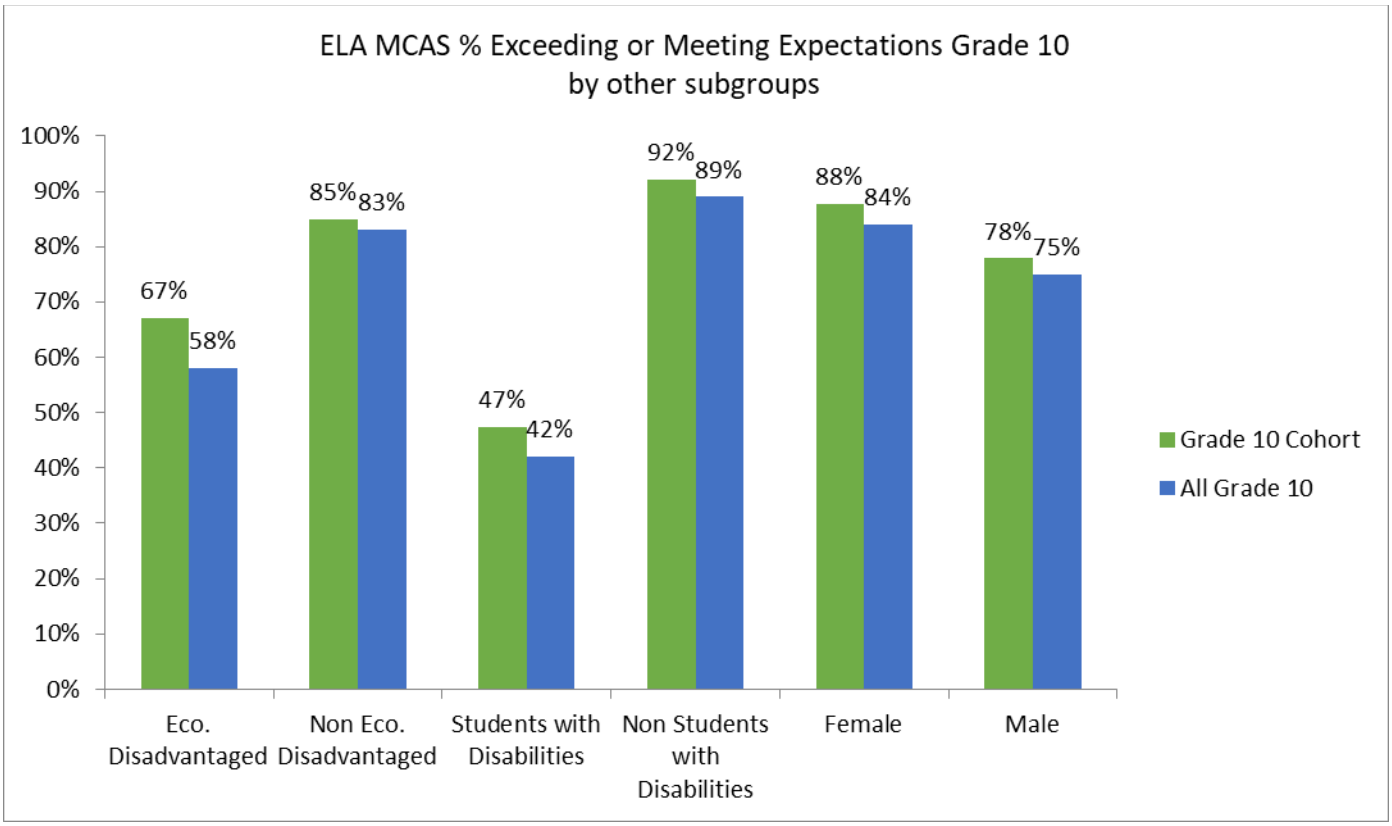
Grade 8

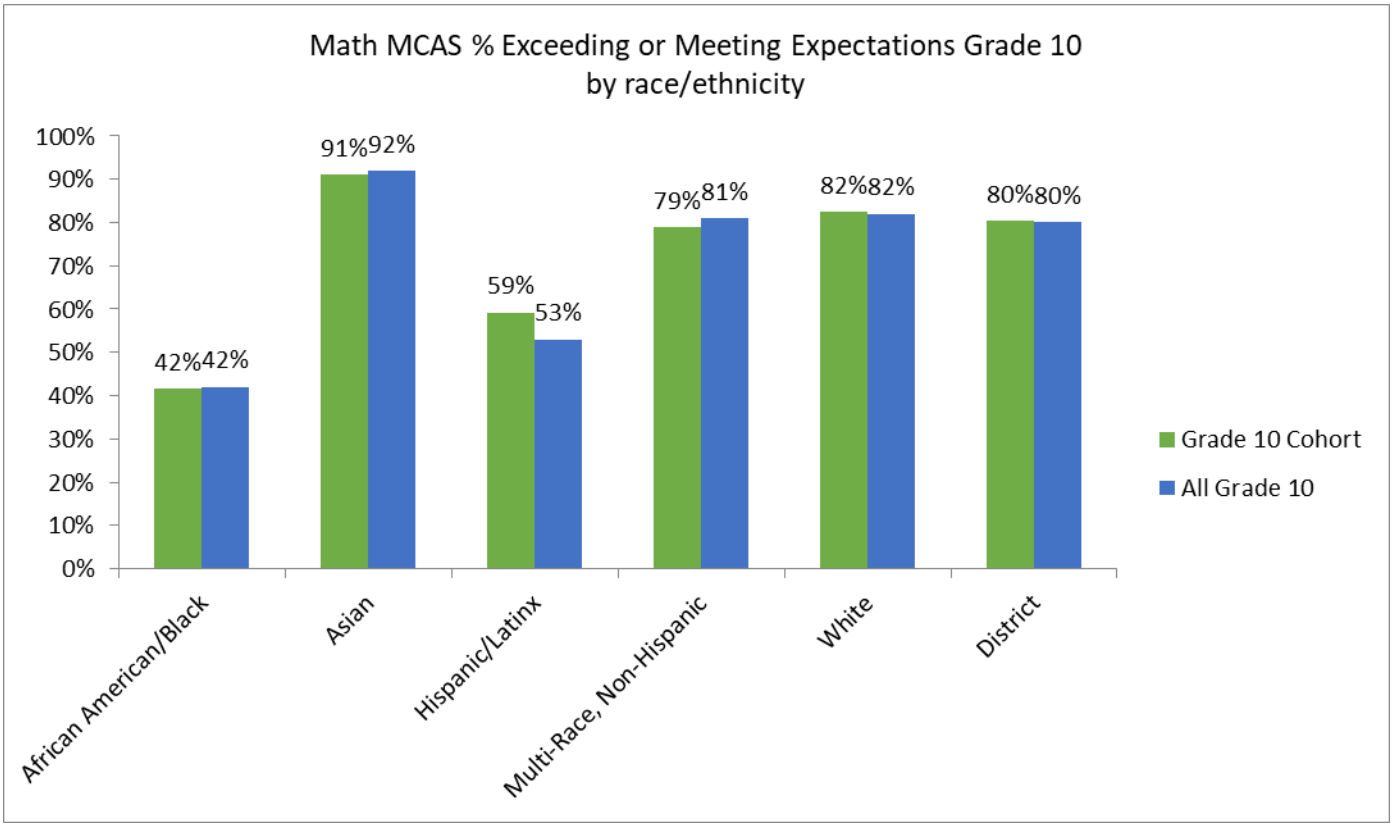
- ELA: Multi-Race students (83% versus 77%)
- Math: Multi-Race students (81% versus 74%); students with disabilities (32% versus 29%)

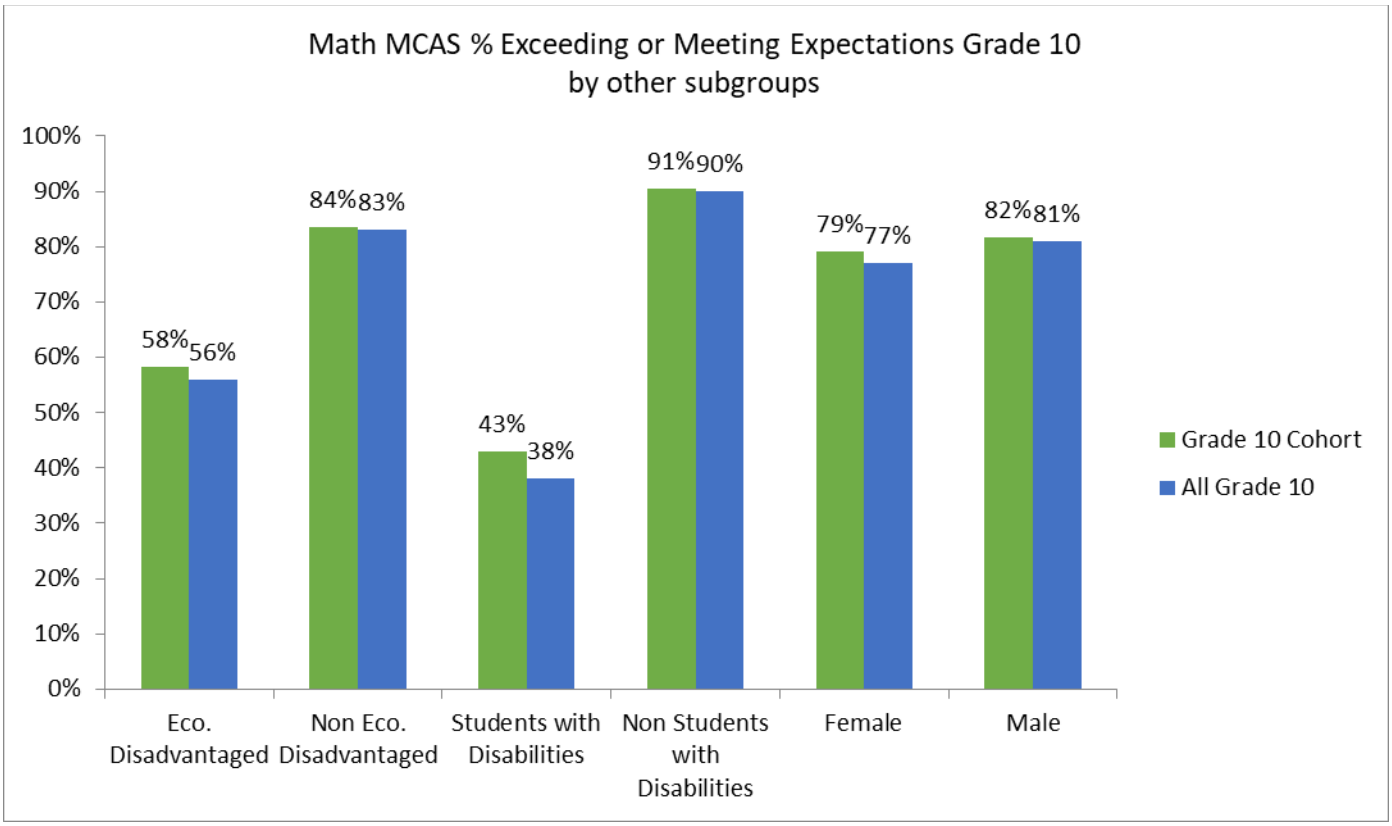
Grade 10

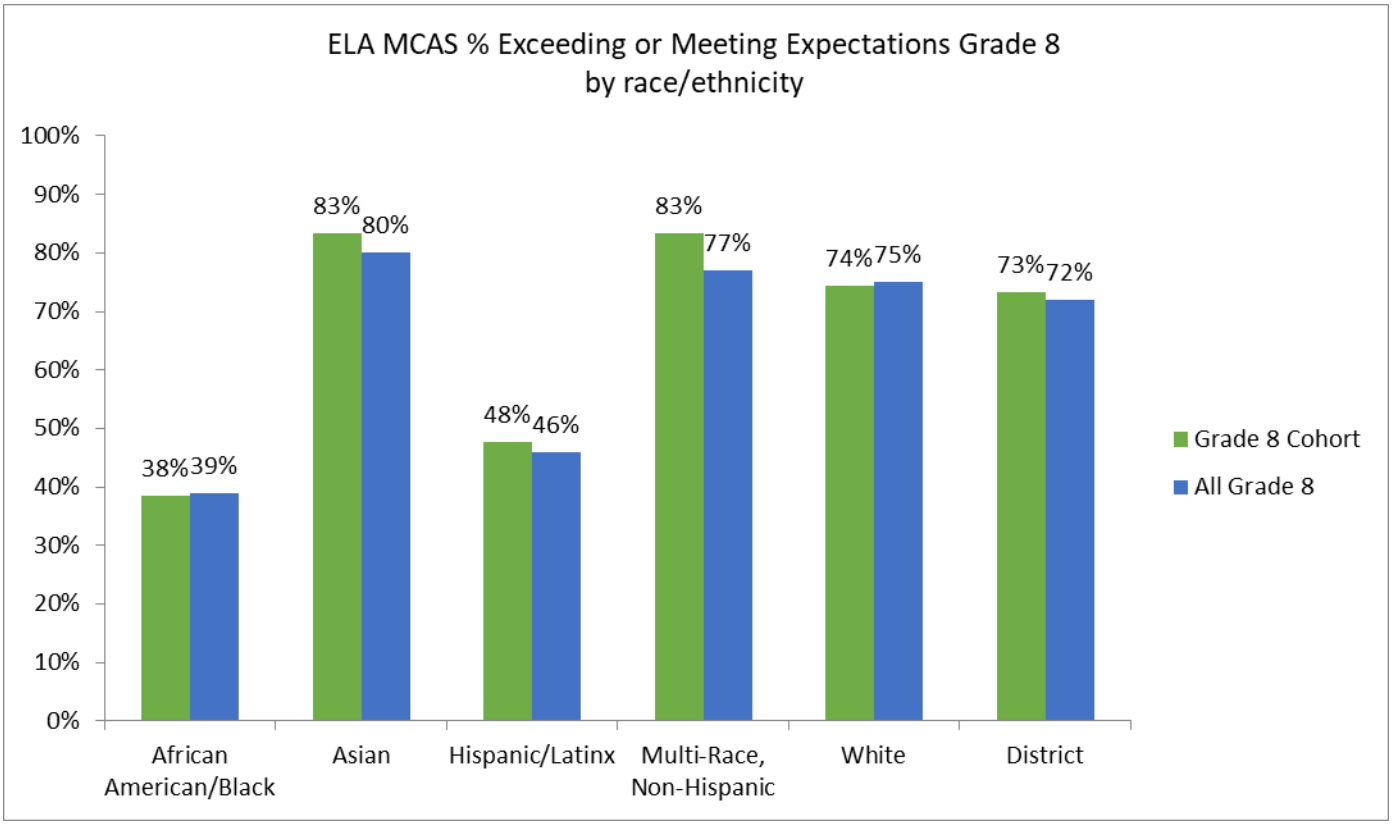
- ELA: African American/Black students (50% versus 45%); Hispanic/Latinx students (67% versus 61%); economically disadvantaged students (67% versus 58%); students with disabilities (47% versus 42%); female students (88% versus 84%)
- Math: Hispanic/Latinx students (59% versus 53%); students with disabilities (43% versus 38%)




ELA MCAS % Exceeding or Meeting Expectations Grade 10
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
67%
58%
85%
83%
47%
42%
92%
89%
88%
84%
78%
75%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 10 Cohort
All Grade 10


Math MCAS % Exceeding or Meeting Expectations Grade 10
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
42%
42%
91%
92%
59%
53%
79%
81%
82%
82%
80%
80%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 10 Cohort
All Grade 10


Math MCAS % Exceeding or Meeting Expectations Grade 10
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
58%
56%
84%
83%
43%
38%
91%
90%
79%
77%
82%
81%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 10 Cohort
All Grade 10


ELA MCAS % Exceeding or Meeting Expectations Grade 8
by race/ethnicity
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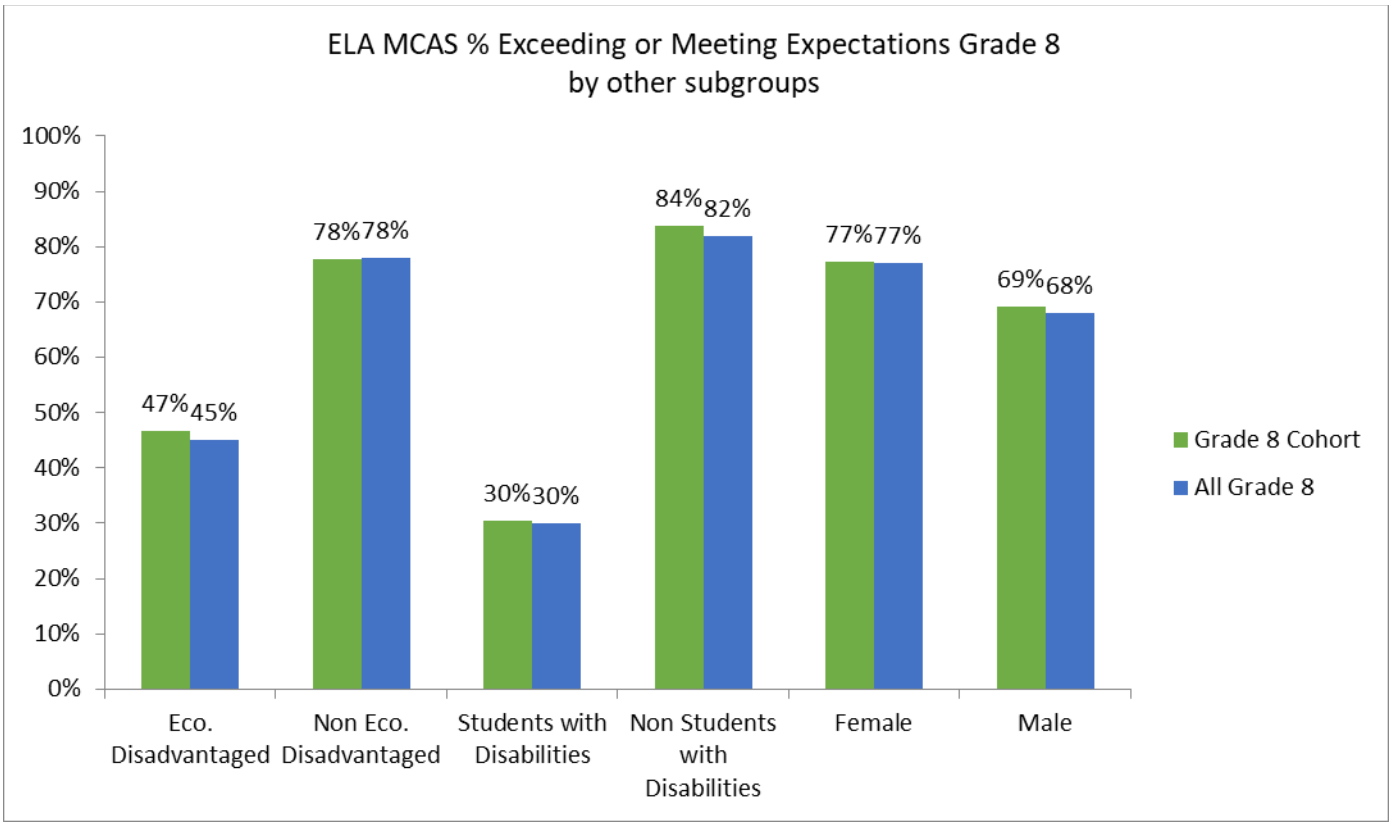
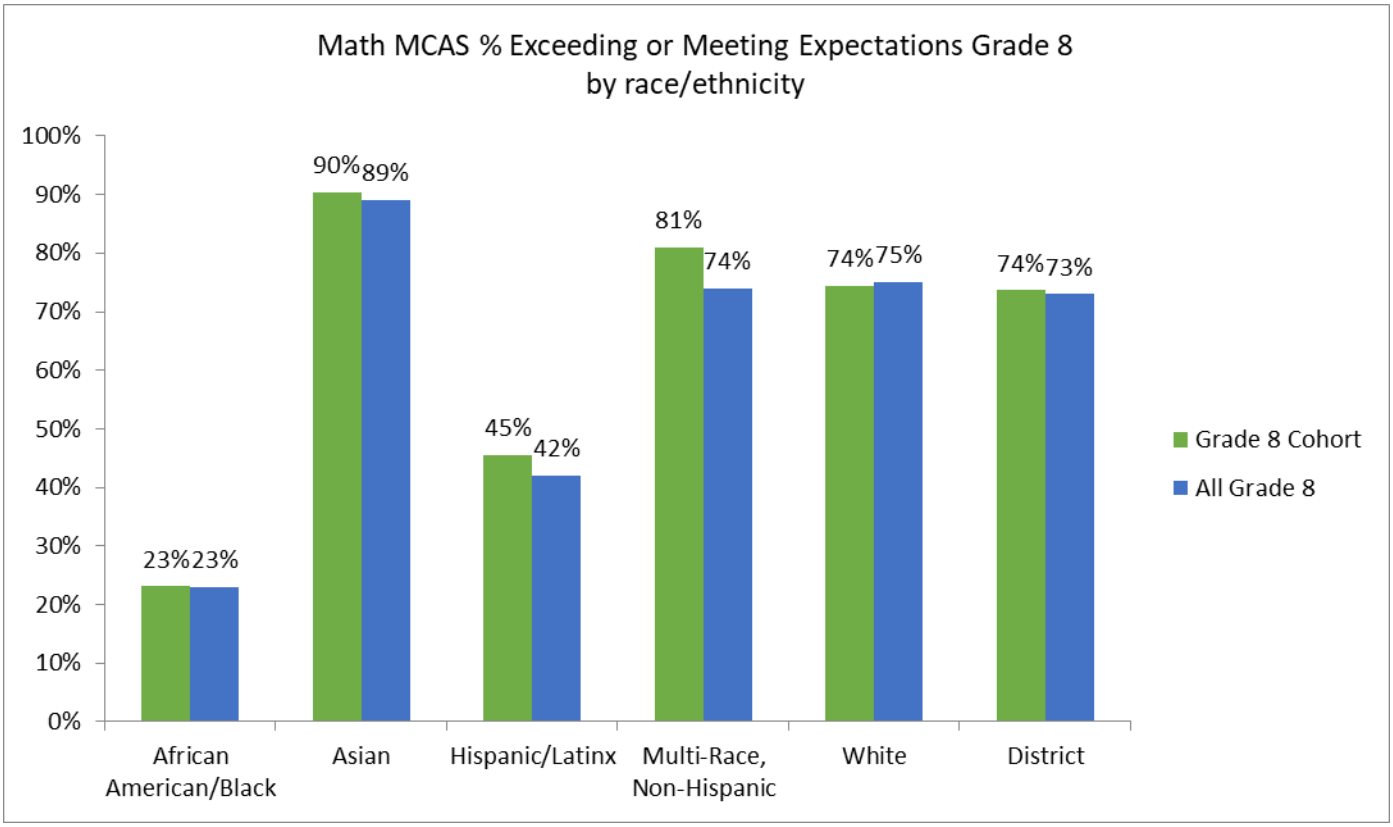
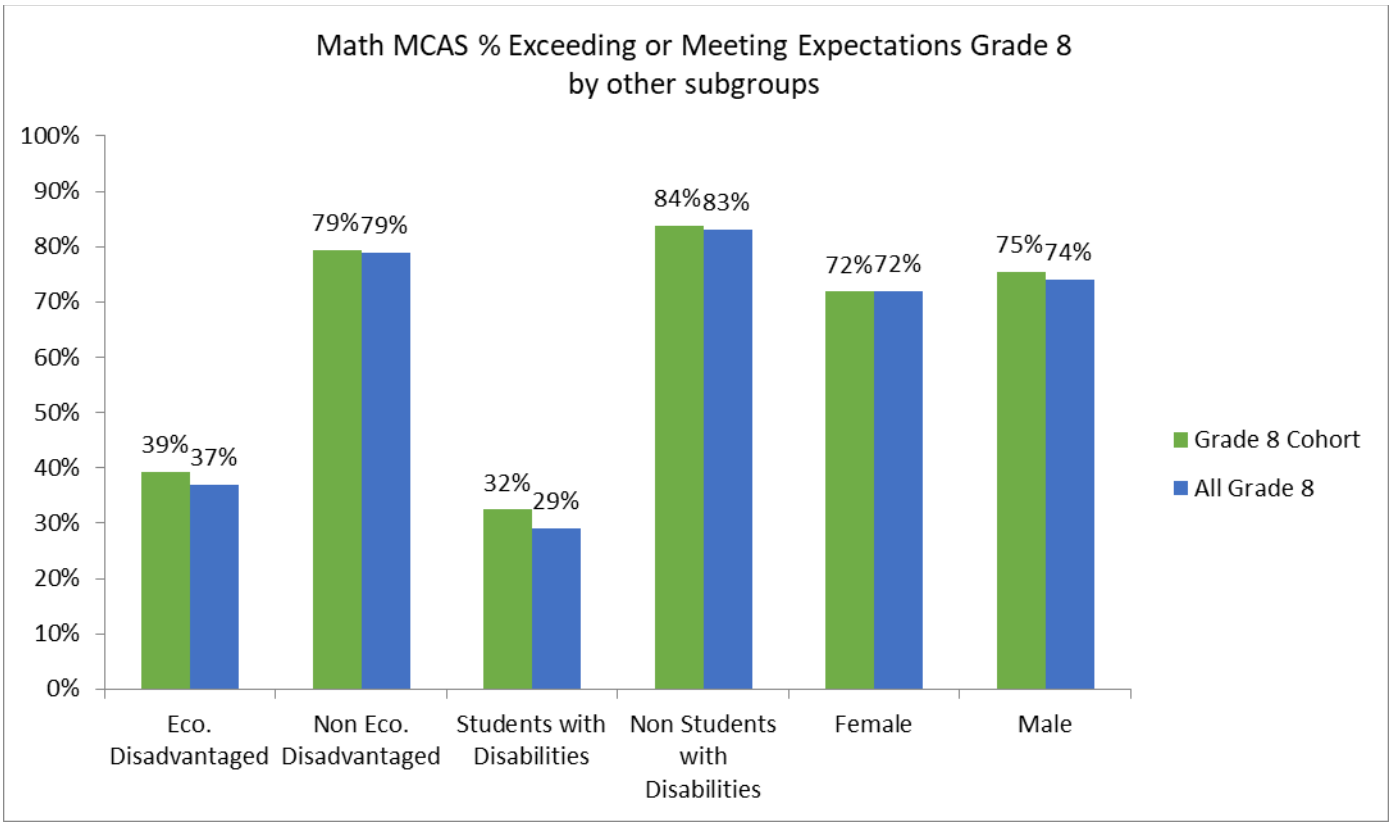
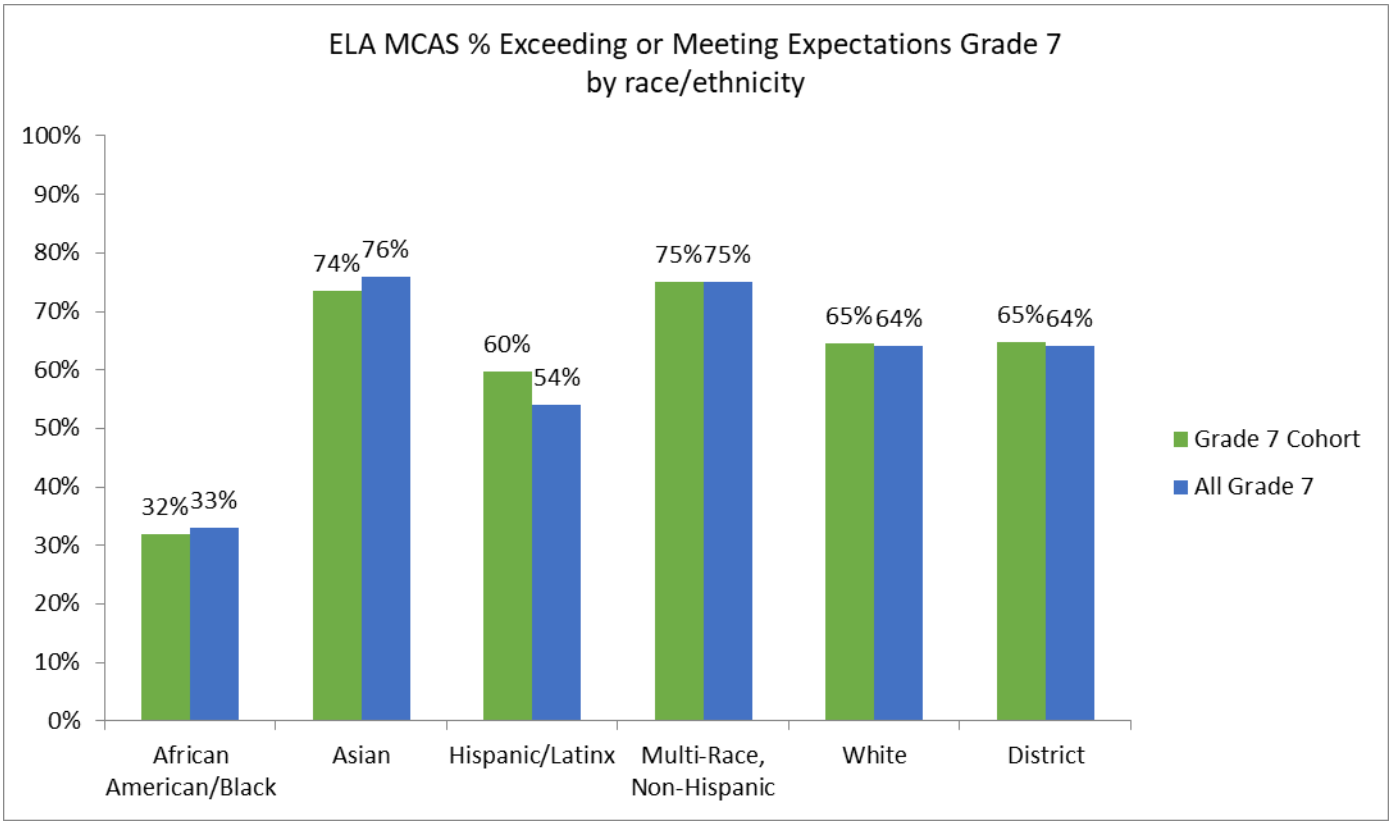
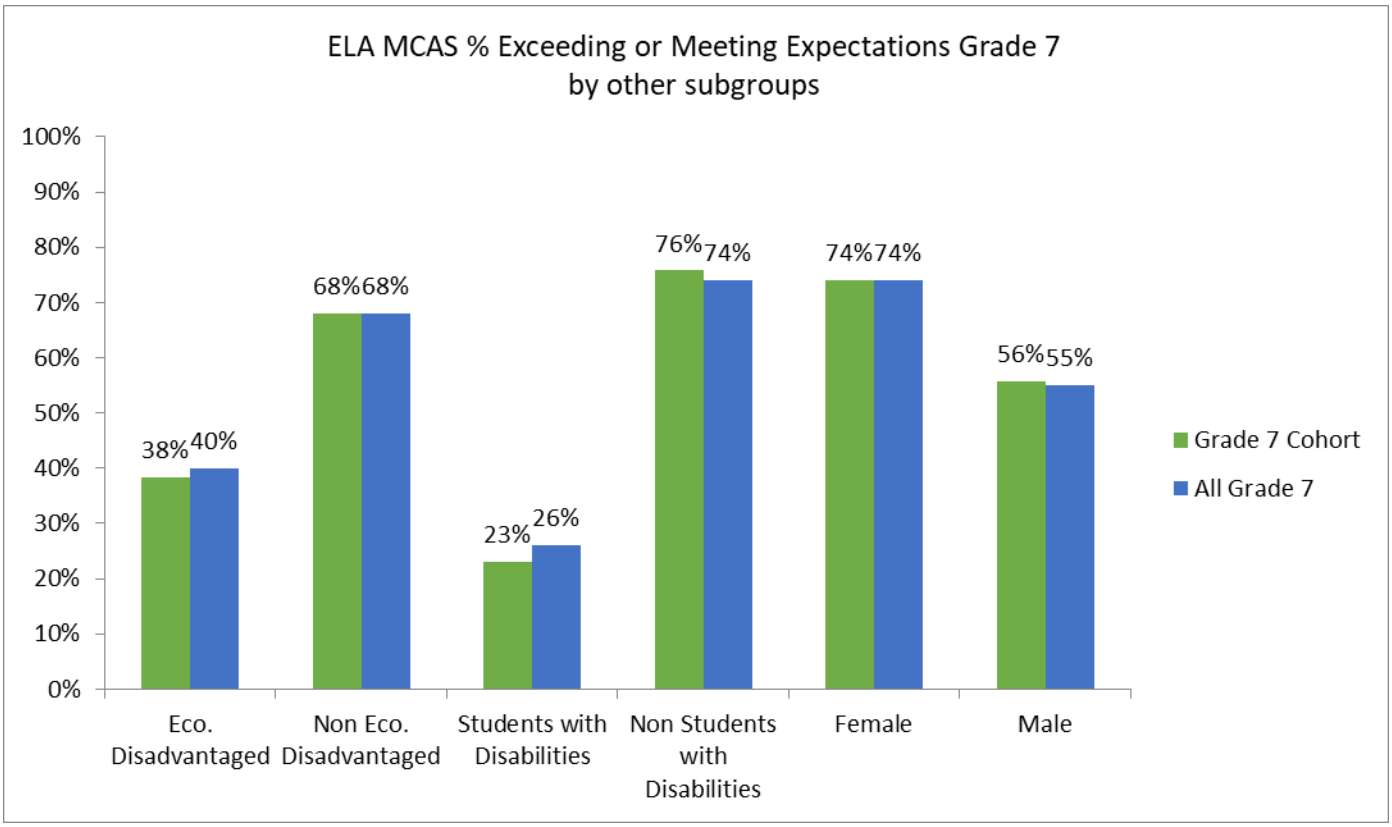
80%
70%
60%
50%
40%
30%
20%
10%
0%
38%
39%
83%
80%
48%
46%
83%
77%
74%
75%
73%
72%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 8 Cohort
All Grade 8

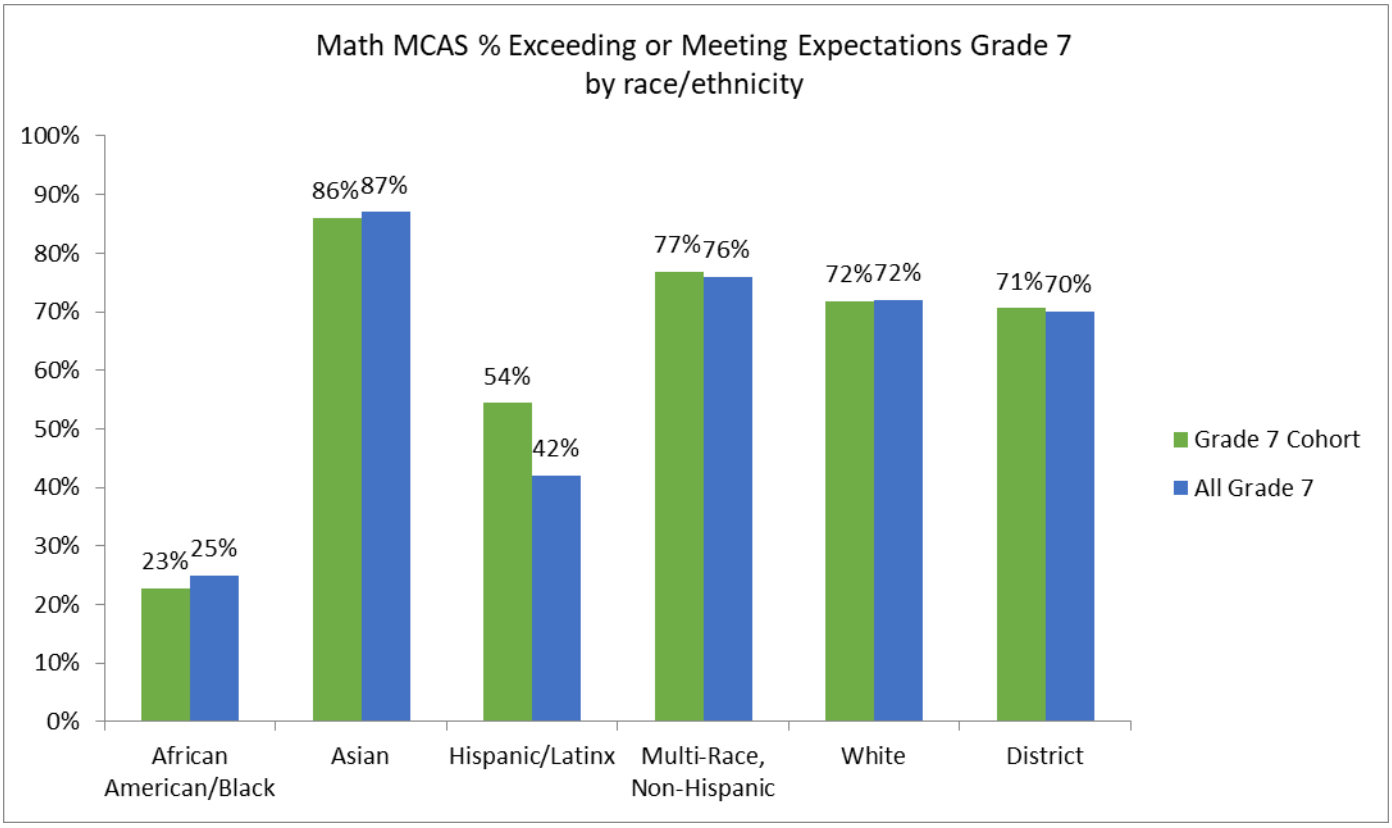

ELA MCAS % Exceeding or Meeting Expectations Grade 8
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
47%
45%
78%
78%
30%
30%
84%
82%
77%
77%
69%
68%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 8 Cohort
All Grade 8

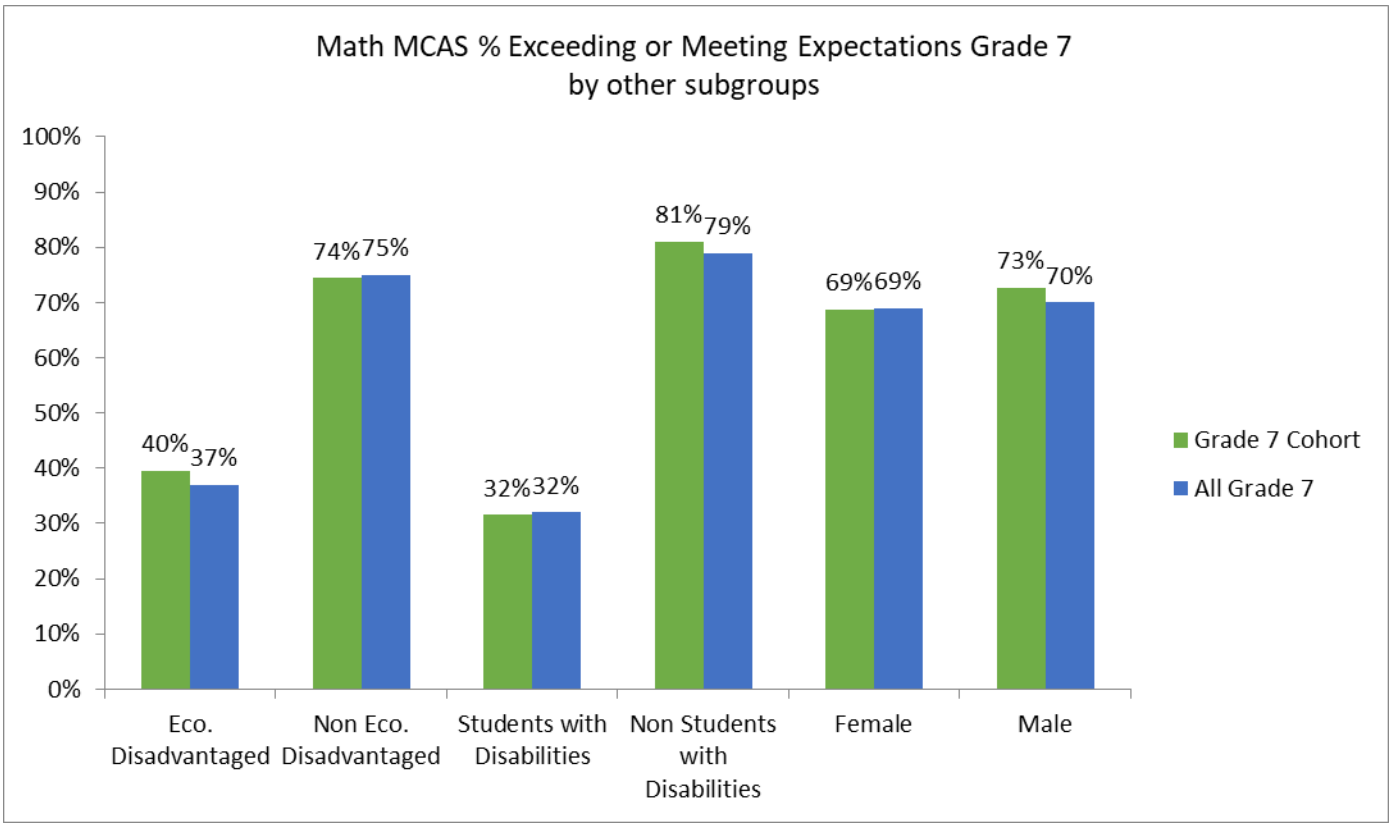

Math MCAS % Exceeding or Meeting Expectations Grade 8
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
23%
23%
90%
89%
45%
42%
81%
74%
74%
75%
74%
73%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 8 Cohort
All Grade 8


Math MCAS % Exceeding or Meeting Expectations Grade 8
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
39%
37%
79%
79%
32%
29%
84%
83%
72%
72%
75%
74%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 8 Cohort
All Grade 8


ELA MCAS % Exceeding or Meeting Expectations Grade 7
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
32%
33%
74%
76%
60%
54%
75%
75%
65%
64%
65%
64%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 7 Cohort
All Grade 7


ELA MCAS % Exceeding or Meeting Expectations Grade 7
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
38%
40%
68%
68%
23%
26%
76%
74%
74%
74%
56%
55%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 7 Cohort
All Grade 7


Math MCAS % Exceeding or Meeting Expectations Grade 7
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
23%
25%
86%
87%
54%
42%
77%
76%
72%
72%
71%
70%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 7 Cohort
All Grade 7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by other subgroups
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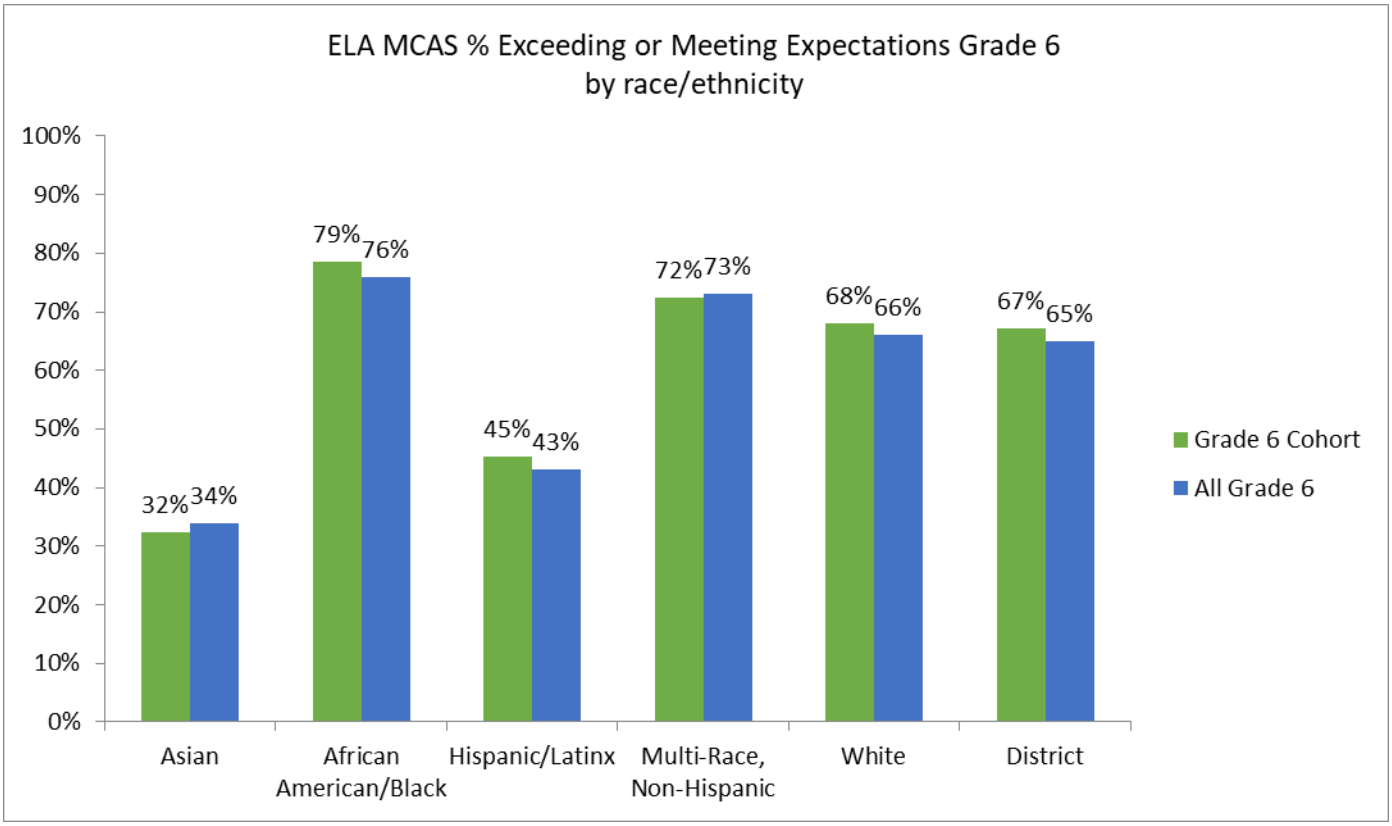
60%
50%
40%
30%
20%
10%
0%
40%
37%
74%
75%
32%
32%
81%
79%
69%
69%
73%
70%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 7 Cohort
All Grade 7


ELA MCAS % Exceeding or Meeting Expectations Grade 6
by race/ethnicity
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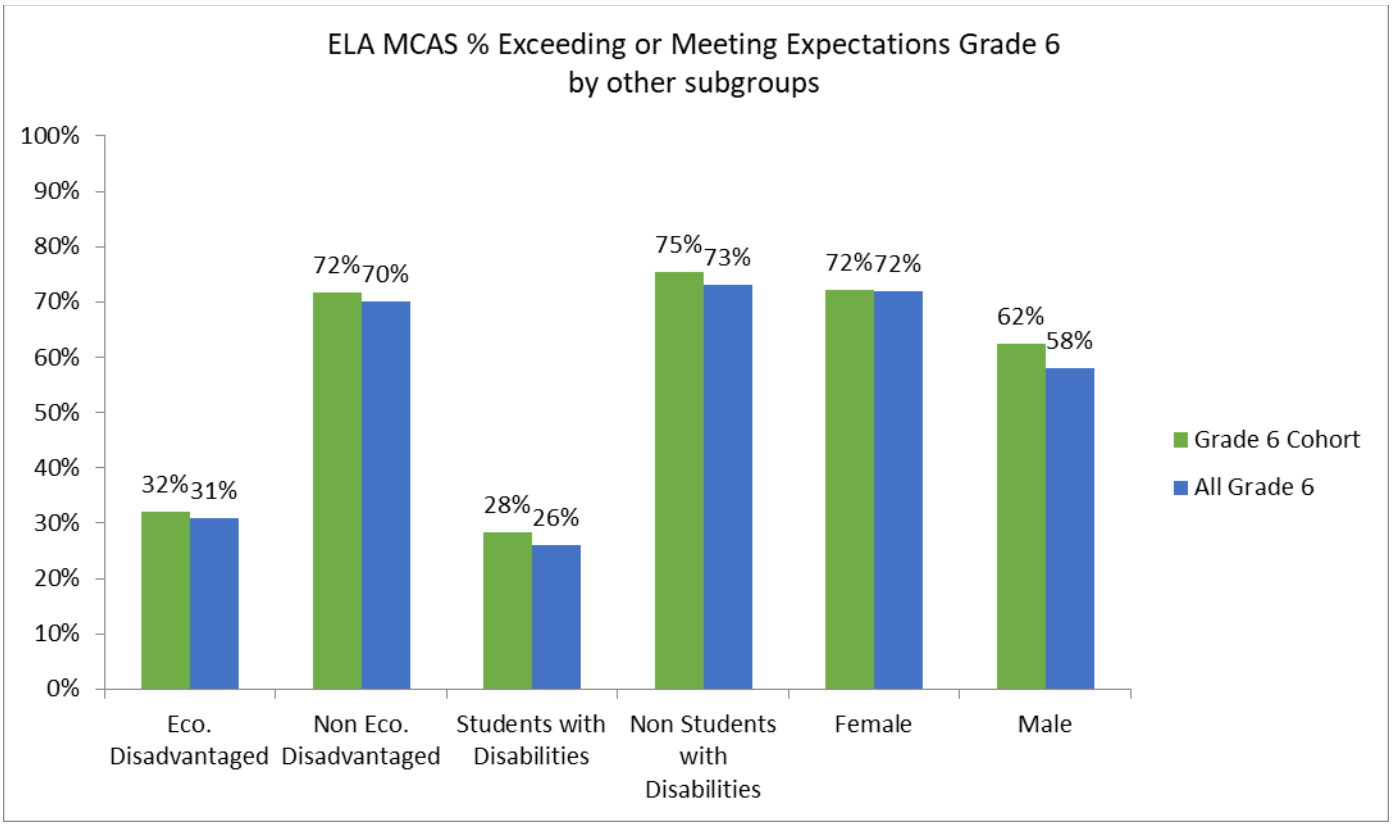
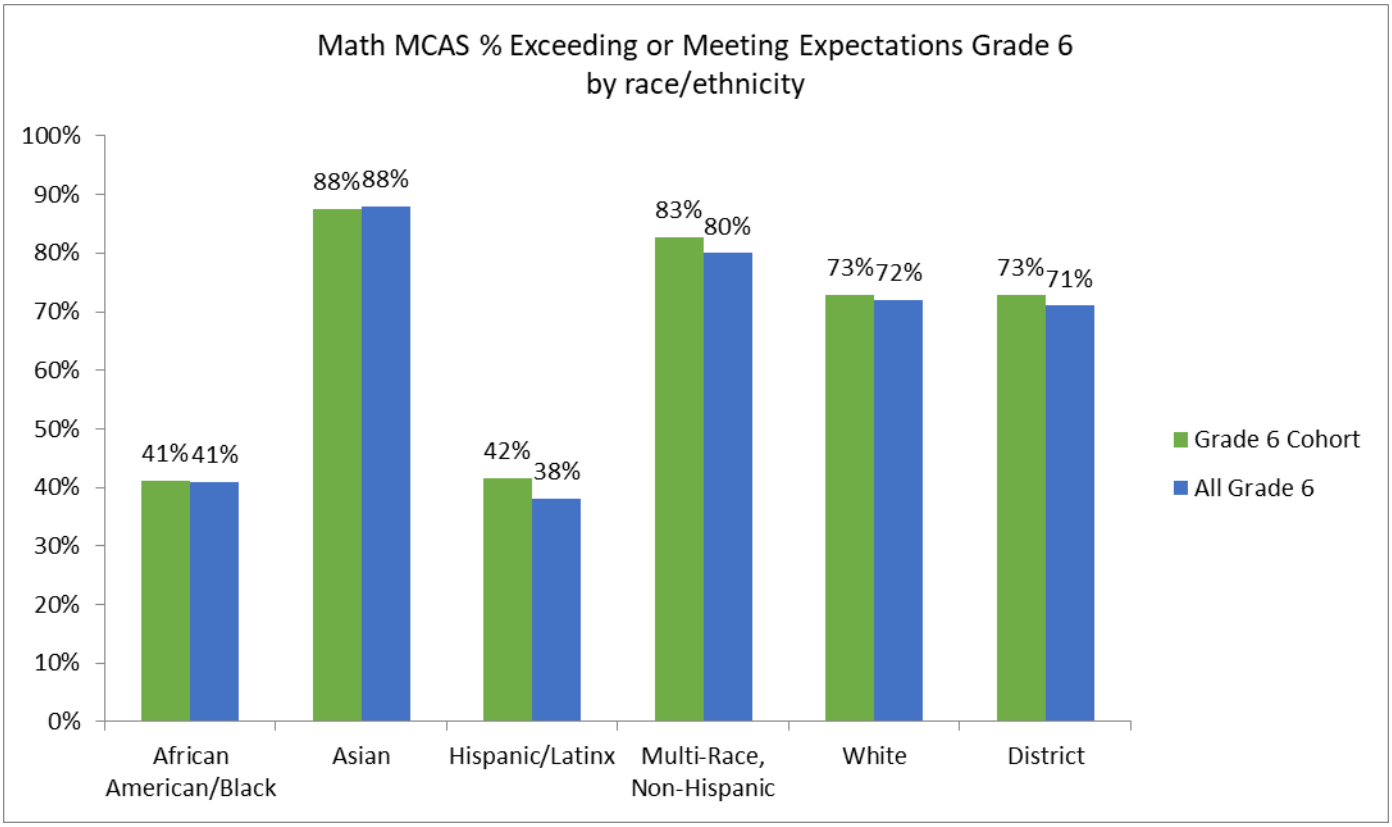
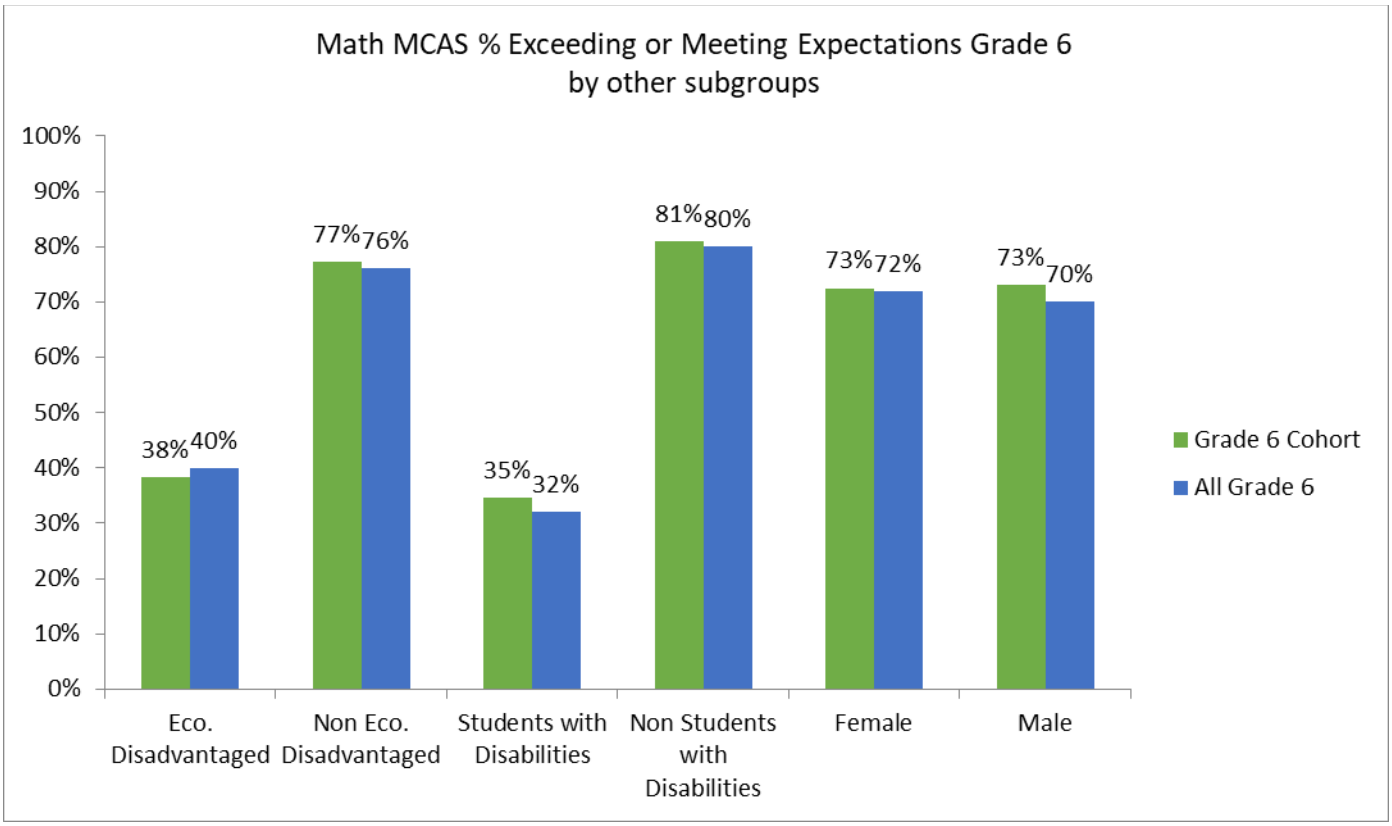
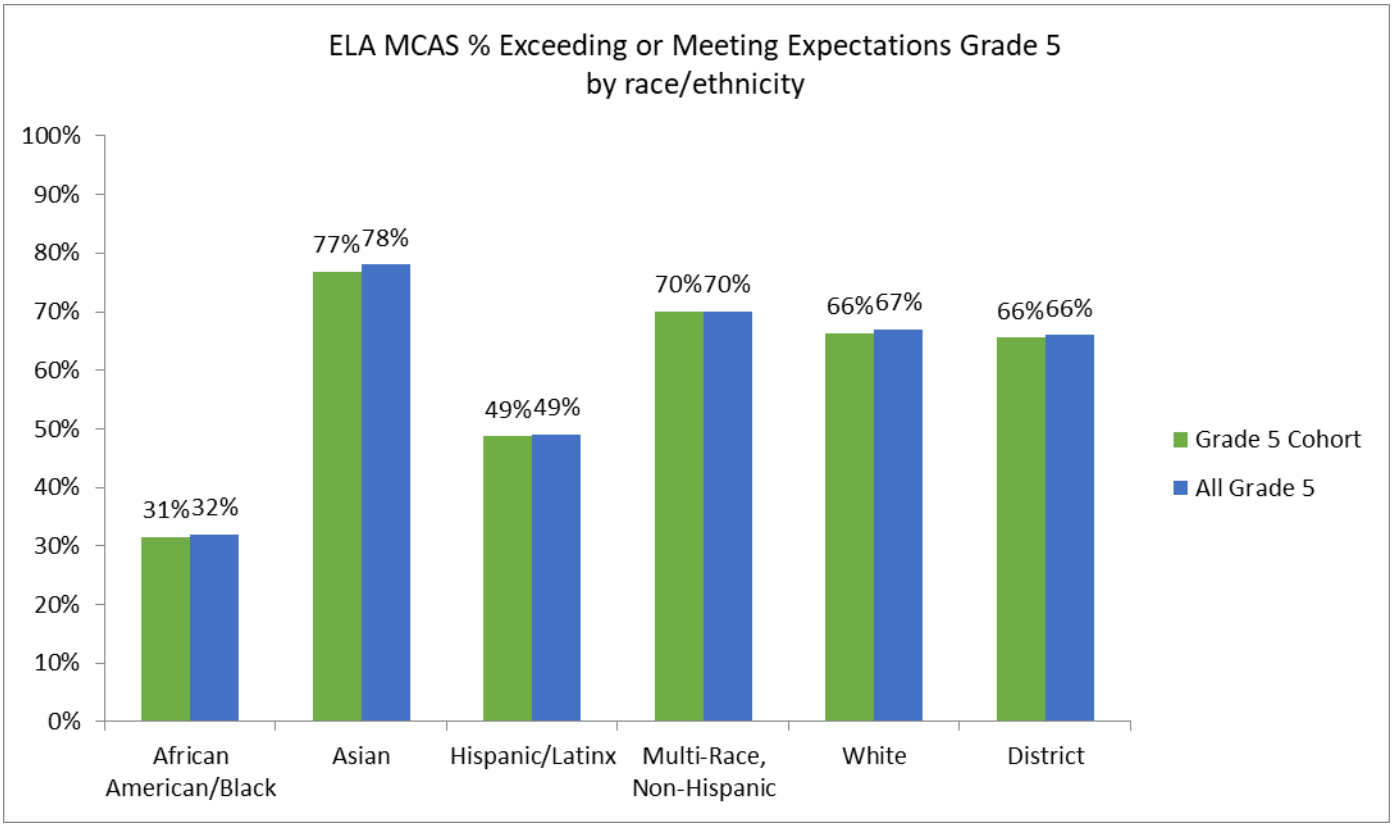
80%
70%
60%
50%
40%
30%
20%
10%
0%
32%
34%
79%
76%
45%
43%
72%
73%
68%
66%
67%
65%
Asian
African American/Black
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 6 Cohort
All Grade 6


ELA MCAS % Exceeding or Meeting Expectations Grade 6
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
32%
31%
72%
70%
28%
26%
75%
73%
72%
72%
62%
58%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 6 Cohort
All Grade 6


Math MCAS % Exceeding or Meeting Expectations Grade 6
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
41%
41%
88%
88%
42%
38%
83%
80%
73%
72%
73%
71%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 6 Cohort
All Grade 6


Math MCAS % Exceeding or Meeting Expectations Grade 6
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
38%
40%
77%
76%
35%
32%
81%
80%
73%
72%
73%
70%
Eco. Disadvantaged
Non Eco. Disadvantaged
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 6 Cohort
All Grade 6


ELA MCAS % Exceeding or Meeting Expectations Grade 5
by race/ethnicity
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80%
70%
60%
50%
40%
30%
20%
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78%
49%
49%
70%
70%
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67%
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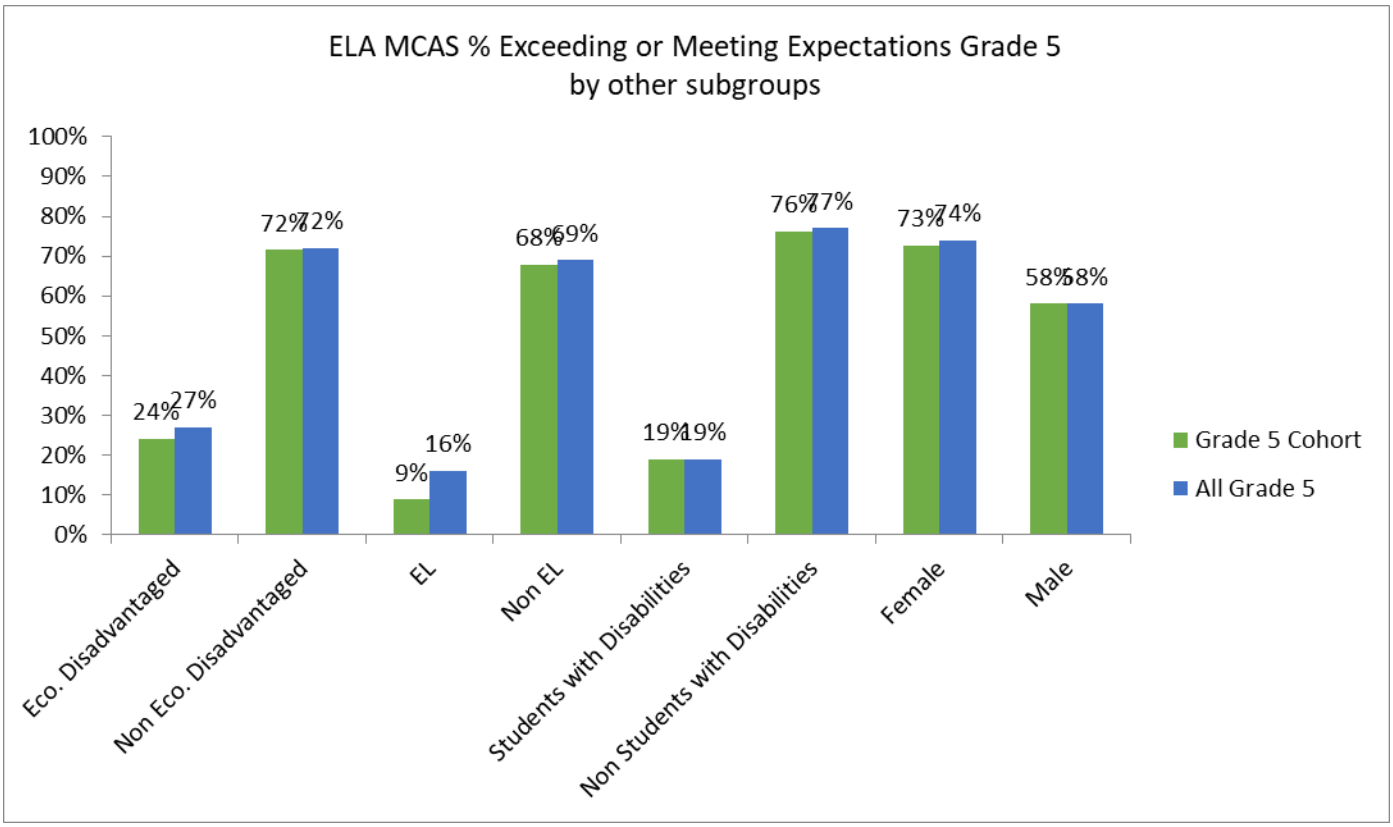
66%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 5 Cohort
All Grade 5


ELA MCAS % Exceeding or Meeting Expectations Grade 5
by other subgroups
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90%
80%
70%
60%
50%
40%
30%
20%
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0%
24%
27%
72%
72%
9%
16%
68%
69%
19%
19%
76%
77%
73%
74%
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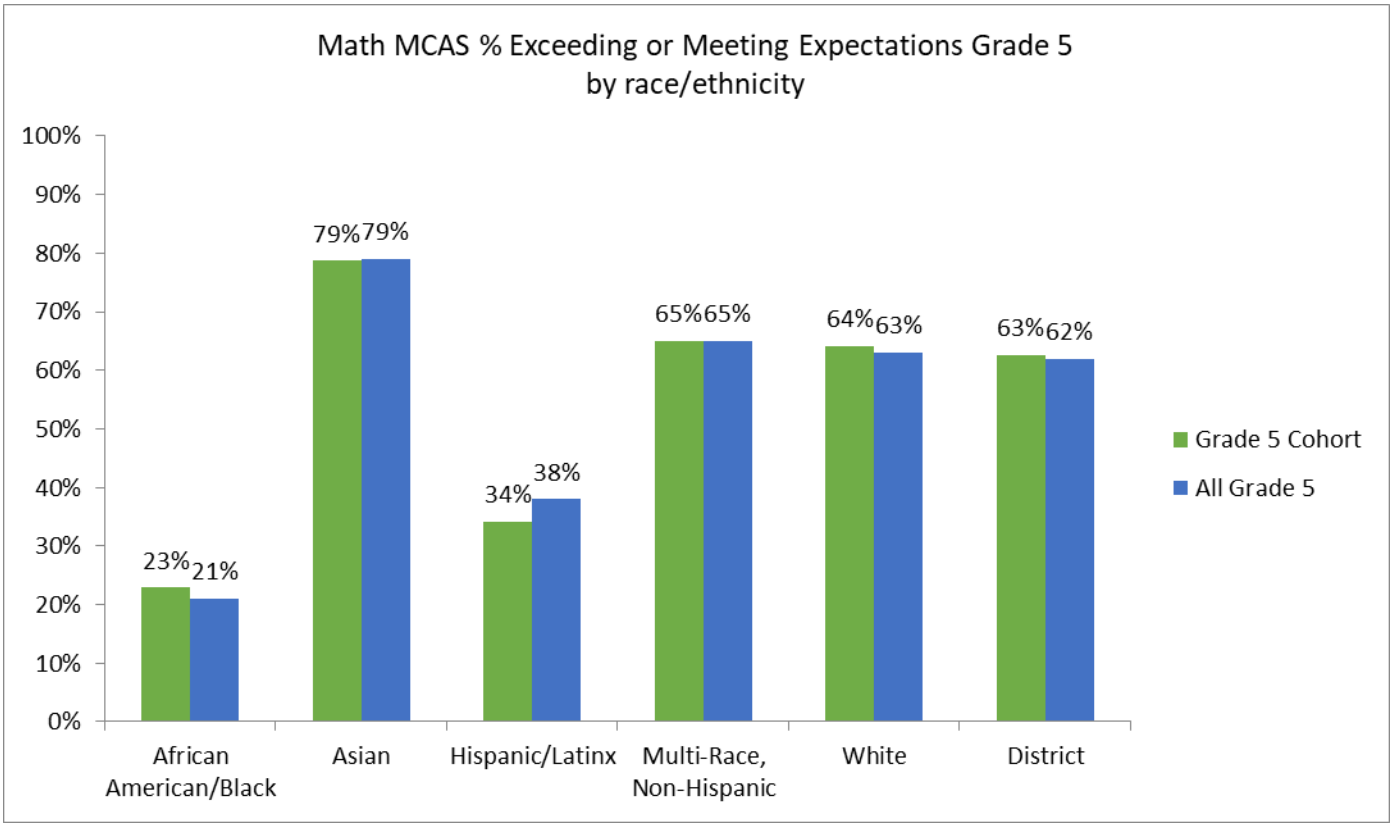
58%
Eco. Disadvantaged
Non Eco. Disadvantaged
EL
Non EL
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 5 Cohort
All Grade 5


Math MCAS % Exceeding or Meeting Expectations Grade 5
by race/ethnicity
100%
90%
80%
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50%
40%
30%
20%
10%
0%
23%
21%
79%
79%
34%
38%
65%
65%
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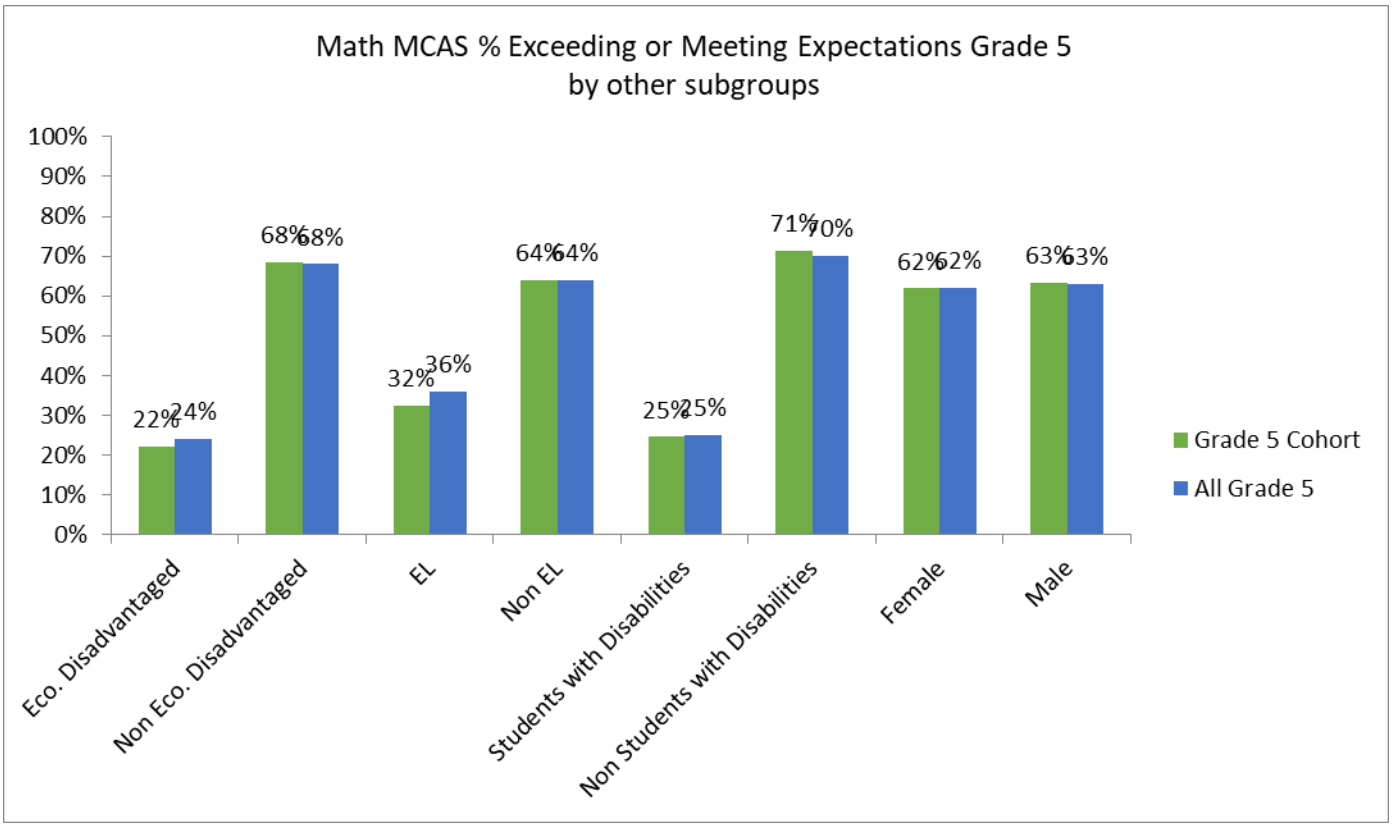
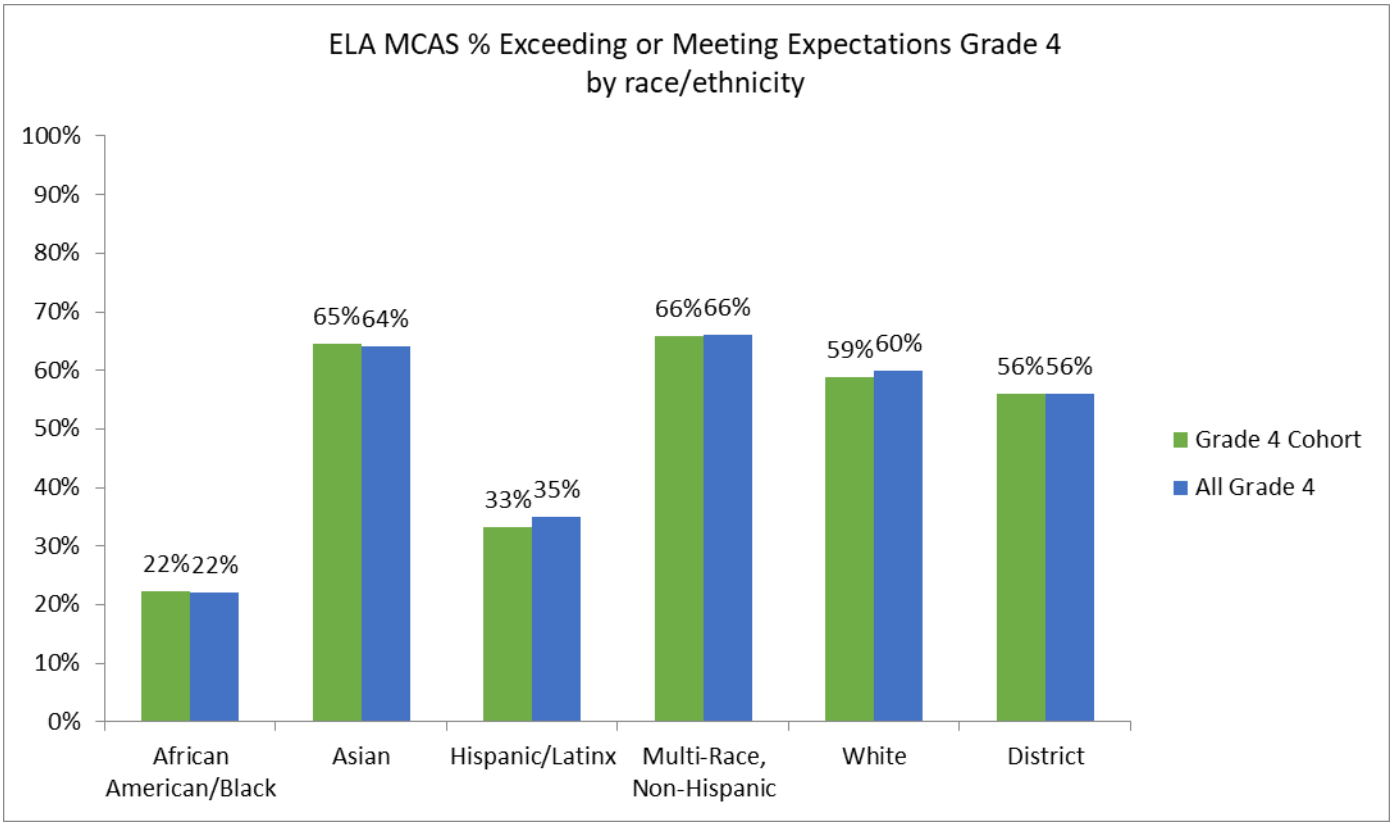
62%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 5 Cohort
All Grade 5


Math MCAS % Exceeding or Meeting Expectations Grade 5
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
22%
24%
68%
68%
32%
36%
64%
64%
25%
25%
71%
70%
62%
62%
63%
63%
Eco. Disadvantaged
Non Eco. Disadvantaged
EL
Non EL
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 5 Cohort
All Grade 5


ELA MCAS % Exceeding or Meeting Expectations Grade 4
by race/ethnicity
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90%
80%
70%
60%
50%
40%
30%
20%
10%
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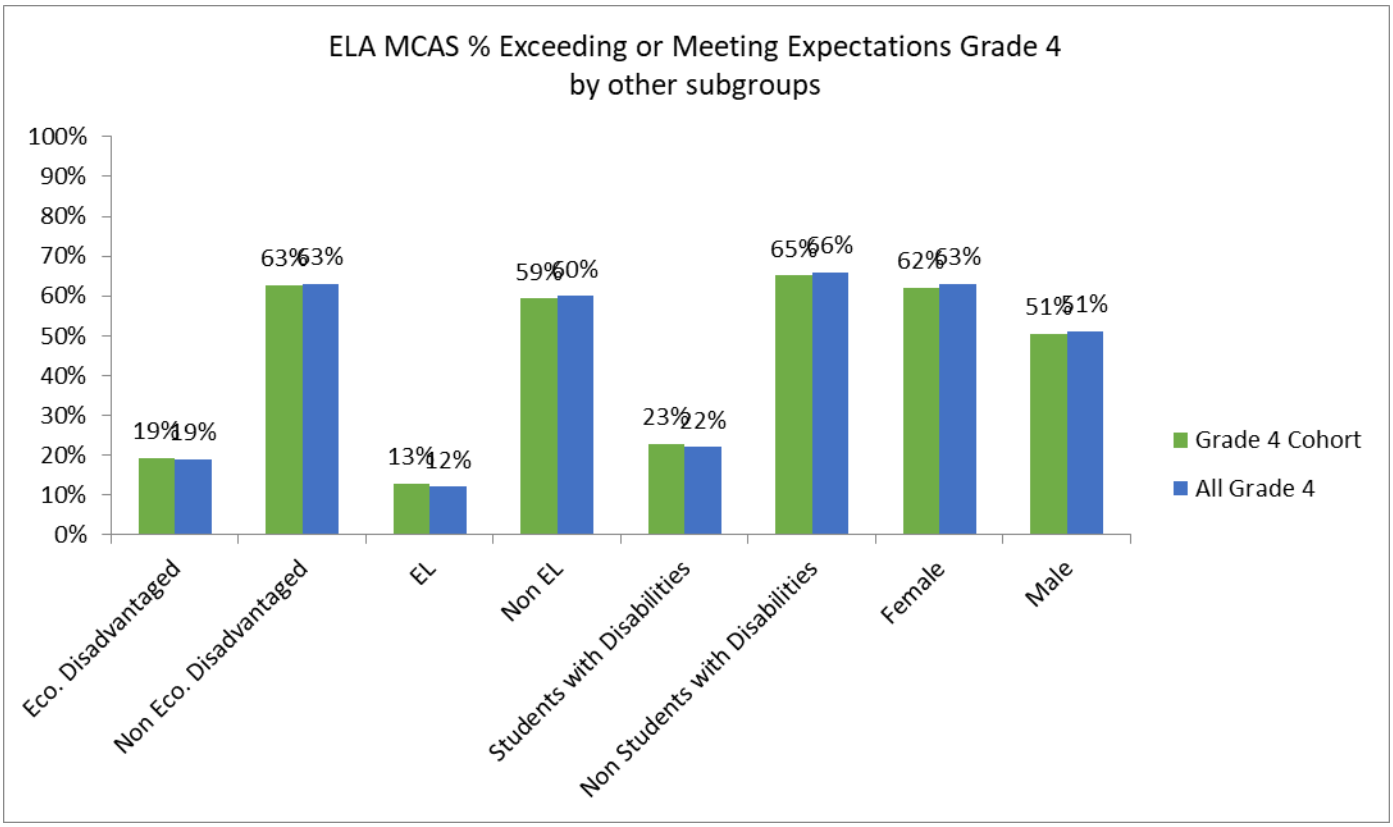
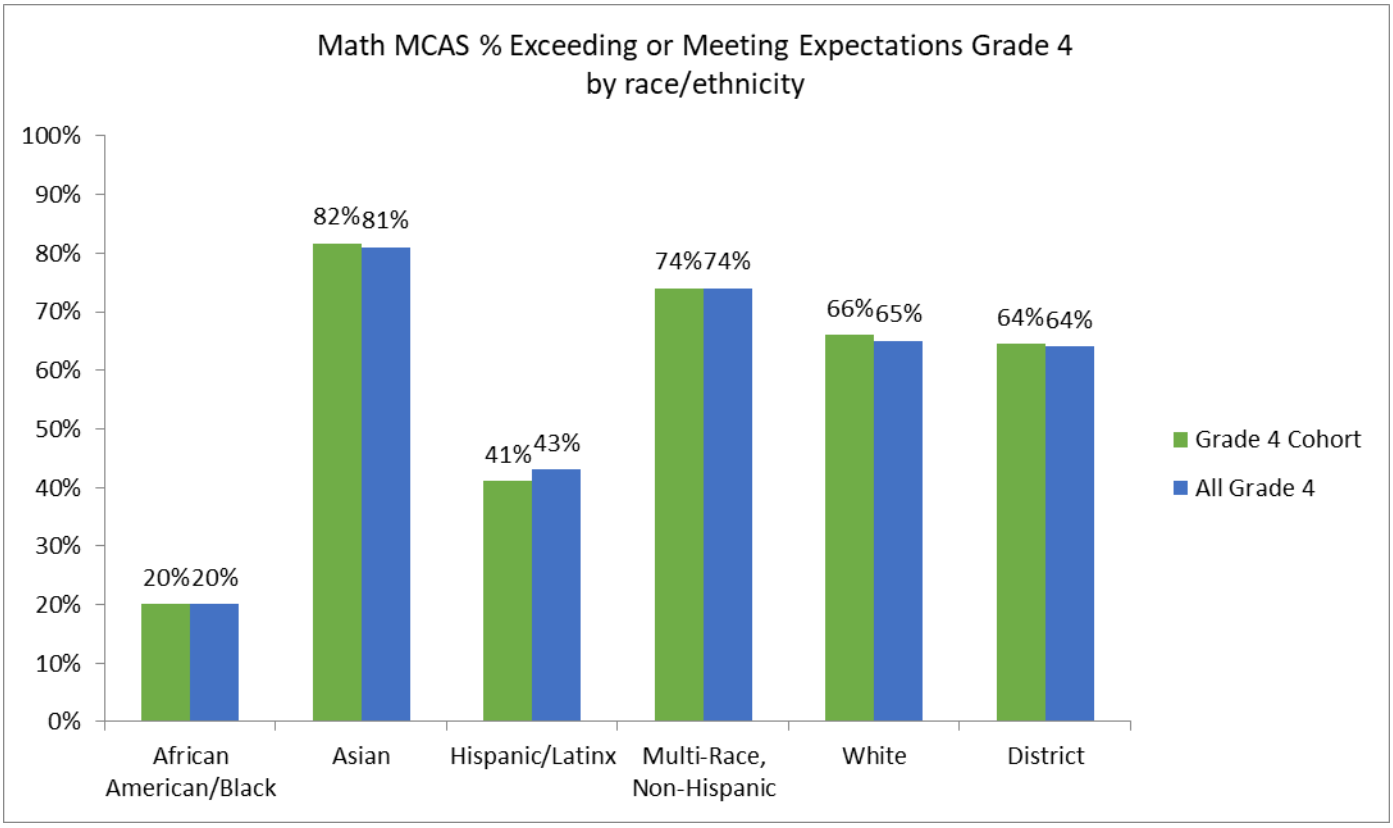
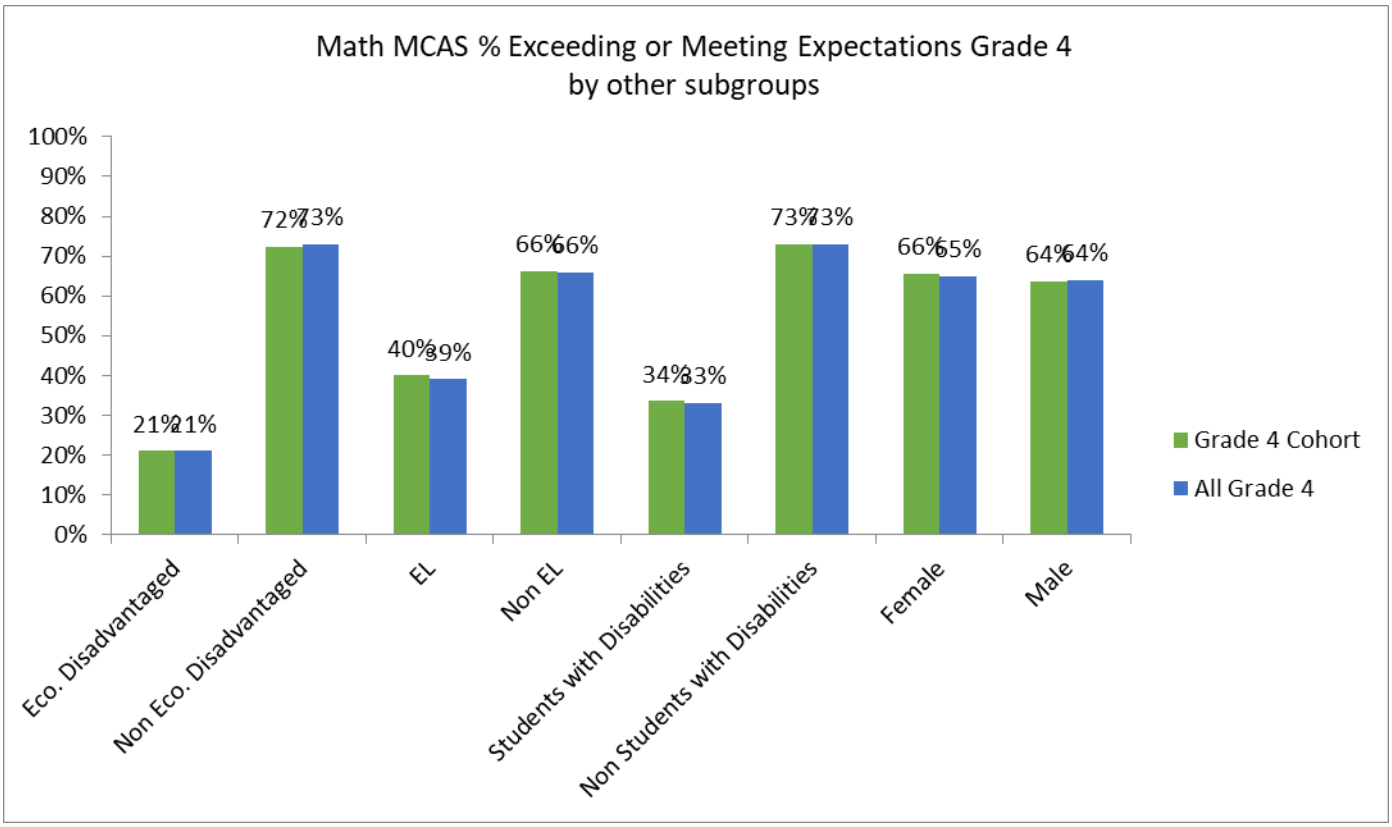
22%
22%
65%
64%
33%
35%
66%
66%
59%
60%
56%
56%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 4 Cohort
All Grade 4


ELA MCAS % Exceeding or Meeting Expectations Grade 4
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
19%
19%
63%
63%
13%
12%
59%
60%
23%
22%
65%
66%
62%
63%
51%
51%
Eco. Disadvantaged
Non Eco. Disadvantaged
EL
Non EL
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 4 Cohort
All Grade 4


Math MCAS % Exceeding or Meeting Expectations Grade 4
by race/ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
20%
20%
82%
81%
41%
43%
74%
74%
66%
65%
64%
64%
African American/Black
Asian
Hispanic/Latinx
Multi-Race, Non-Hispanic
White
District
Grade 4 Cohort
All Grade 4


Math MCAS % Exceeding or Meeting Expectations Grade 4
by other subgroups
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
21%
21%
72%
73%
40%
39%
66%
66%
34%
33%
73%
73%
66%
65%
64%
64%
Eco. Disadvantaged
Non Eco. Disadvantaged
EL
Non EL
Students with Disabilities
Non Students with Disabilities
Female
Male
Grade 4 Cohort
All Grade 4