Post-Pandemic Student Performance

An Overview of 2022 State Assessment Results

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I.   Introduction

The Massachusetts Comprehensive Assessment System - the test we know as MCAS - came into being with the Education Reform Act in 1993[1]. The passing of this legislation signaled an important moment for public schools and for the students and families they serve. Bipartisan support for a state assessment tied to curriculum standards was instrumental in raising academic expectations for all students. Moreover, the sustained attention on student growth as well as academic outcomes resulted in a renewed focus on achievement opportunity gaps. The effort to bring attention to the success of all students was particularly important for student groups that had been historically low performing and/or underserved. The continued use of common metrics across districts continues to guide our actions.

MCAS remains an important tool for school improvement. Our state leads the nation in educational excellence and Shrewsbury continues to be a leader in the state, in part because we use data to inform our decisions. As we contemplate the impact of the pandemic on the children in our community, an analysis of the performance of achievement scores is a helpful starting place. The analysis of student subgroup scores gives us a full picture of current strengths and future needs. This year this report has been configured differently to depict a more detailed look at low performing and/or underserved students in Shrewsbury.

The "next generation" MCAS was conceived to prepare students for the rigorous tasks they are likely to face in college and/or their careers. At this point, students at all levels have transitioned to this new version of the test. Unfortunately, the pandemic struck school districts at the beginning of this new assessment cycle.

II. Overview

As we review the latest MCAS results, it's important to note that, due to adjustments made by the Department of Elementary and Secondary Education (DESE) during the pandemic, 2022 results are best compared with 2019, not 2021. This is because in 2020 the exam was canceled altogether, and in 2021 students took a shortened version that was administered differently, with some students taking the exam remotely from home.
In consideration of recent changes to MCAS administration, DESE sought and received a [waiver of]

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[1] Building on 20 Years of Massachusetts Education Reform Massachusetts Board of Elementary and Secondary Education Report M. D. Chester, Ed. D. Commissioner November 2014

[federal accountability](#) requirements from the United States Department of Education. Shortly thereafter, the Massachusetts State Board of Elementary and Secondary Education amended state regulations. Due to the COVID-19 pandemic, most districts did not receive an accountability determination in 2022. More information about what to expect in the coming year can be found in the [District and School Accountability](#) section of the DESE website.

In general, while a single assessment is but one data point, the Department of Elementary and Secondary Education has affirmed the use of MCAS results as an indicator of where additional student support may be warranted. The data can also serve as a useful snapshot of the district as a whole, akin to the way a check up helps us monitor our health.

The section that follows will provide a snapshot of student achievement by grade and subject area. A link to Shrewsbury's district profile, including detailed information about student performance reports, can be found here: [MCAS Tests of Spring 2022 Percent of Students at Each Achievement Level - Shrewsbury](#)

What do Shrewsbury's results tell us? For one thing, we can expect that it will take time to fully regain the progress the district achieved in previous years. Moreover, progress may be uneven across subject areas and grade spans, because cohorts of students experienced the impact of the disruption differently.

III. Achievement Data Analysis

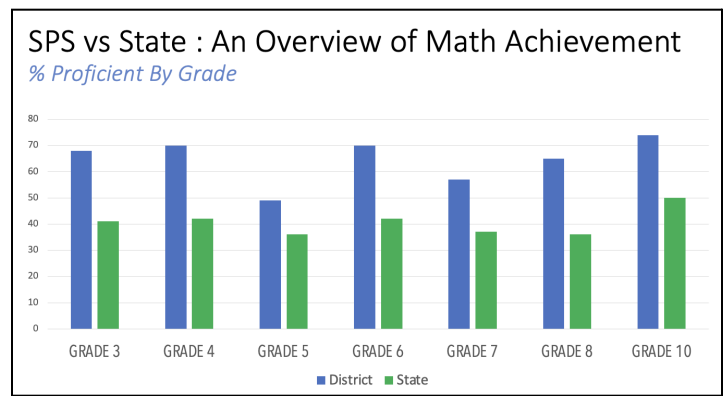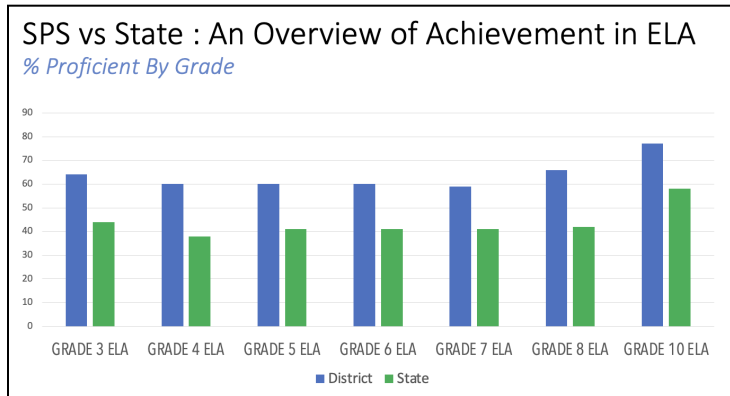This part of the report details achievement scores by subject area for each grade span.

The graphs below provide a snapshot of 2022 student achievement scores by subject area compared to the state average. For most students in Grades 3-6, 2022 achievement scores were higher in Math than in English Language Arts. In the upper grades, however, English Language Arts achievement results were generally similar to Math scores.
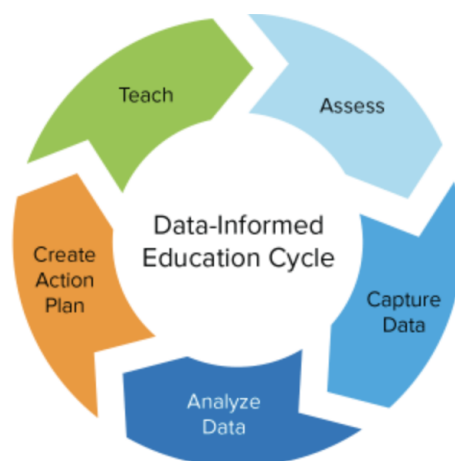
2022 MCAS: District vs. State Comparison Data

A student is considered "Proficient" having earned a score of "Meeting" or "Exceeding".

SPS vs State : An Overview of Achievement in ELA
% Proficient By Grade

SPS vs State : An Overview of Math Achievement
% Proficient By Grade

Achievement scores for students in Grades 3-7 in English Language Arts (ELA) continue to reflect the impact of lost instructional time, with the most significant differences seen in Grades 3 and 4. The decline in ELA scores is likely linked to limited in-person opportunities for foundational literacy learning. Additionally, lower writing scores contributed to lower scores overall. While concerning, this finding makes sense. The impact of the pandemic on instructional time in school, taken together with the unusual administration of MCAS in 2021 had an outsized impact on elementary students in the district and across the state.

The table below, shared by the Department of Elementary and Secondary Education (DESE) depicts the difficulties Massachusetts students in Grades 3-8 had in meeting grade level benchmarks.

Total impact of 20% loss in grades 3-8 students meeting expectations since 2019.

Grade	2019 % M/E	2021 % M/E	2022 % M/E	Change M/E 19-21	Change M/E 21-22	Change M/E 19-22
03	56	51	44	-5	-7	-12
04	52	49	38	-3	-11	-14
05	52	47	41	-5	-6	-11
06	53	47	41	-6	-6	-12
07	48	43	41	-5	-2	-7
08	52	41	42	-11	1	-10
3-8	52	46	41	-6	-5	-11
10	61	64	58	+3	-6	-3

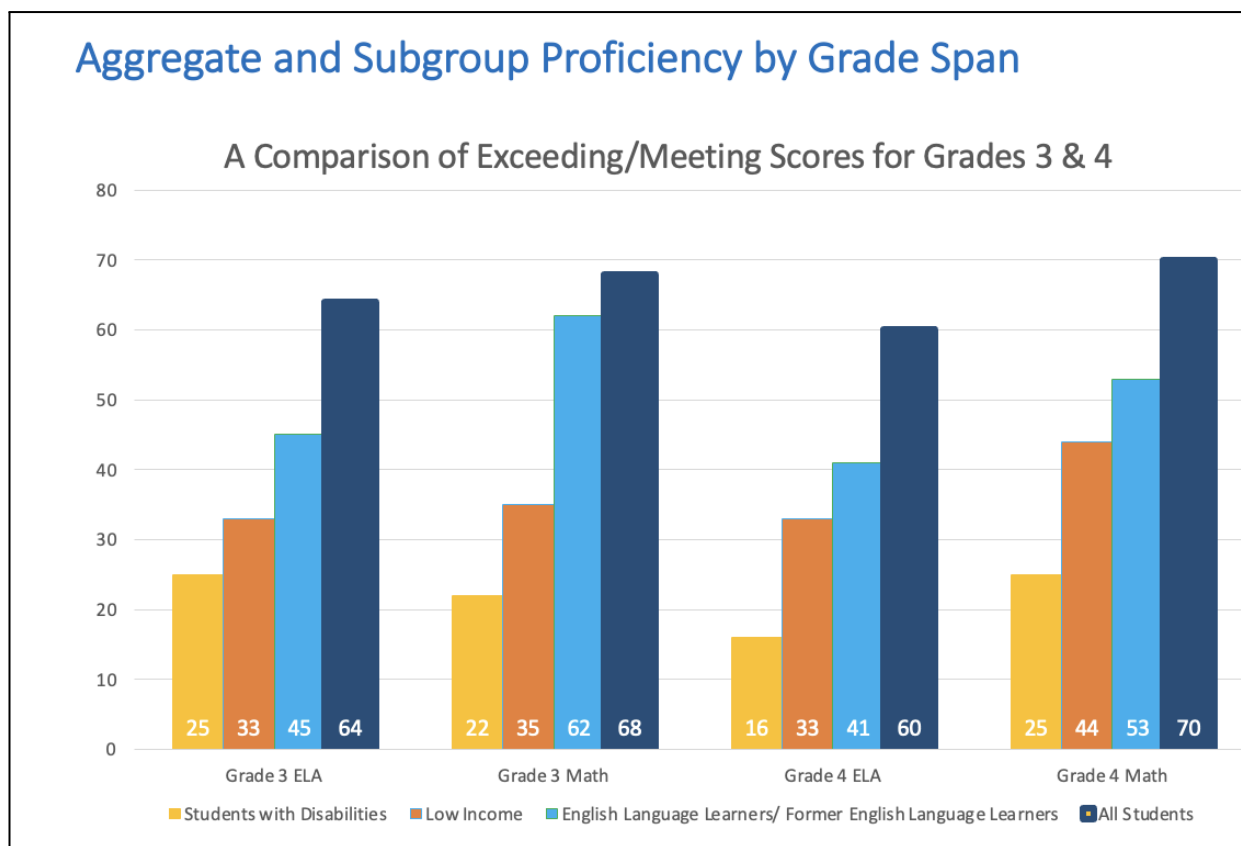Massachusetts Department of Elementary and Secondary Education

Massachusetts State Data: Overall Trends

In the sections to follow, we see that Shrewsbury's results reflect greater gains since 2021, suggesting that most students in the district are beginning to recover lost ground.

Looking at student needs across grade levels certainly helps curriculum leaders to adjust instruction in English Language Arts, Math, and Science and Engineering. However our primary focus this year has been to use MCAS results, together with district assessment data, to align instruction to meet individual student needs.

Just as achievement results vary across grade spans, it's evident that there are differences in student scores within grade spans as well. Another important way we can understand assessment data is by monitoring groups of children. These cohorts are called "subgroups." These results make plain that the disruption caused by COVID-19 had a disproportionate impact on students in need. Looking at trends for student subgroups suggests that achievement opportunity gaps that existed before the pandemic were exacerbated by school closure and other losses.

Student Subgroup Analysis

Aggregate and Subgroup Proficiency by Grade Span

A Comparison of Exceeding/Meeting Scores for Grades 3 & 4

	Grade 3 ELA	Grade 3 Math	Grade 4 ELA	Grade 4 Math
Students with Disabilities	25	22	16	25
Low Income	33	35	33	44
English Language Learners/ Former English Language Learners	45	62	41	53
All Students	64	68	60	70

Aggregate and Subgroup Proficiency by Grade Span

A Comparison of Exceeding/Meeting Scores for Grades 5-8

	Students with Disabilities	Low Income	English Language Learners/ Former English Language Learners	All Students
Grade 5 ELA	19	31	50	60
Grade 5 Math	16	17	39	49
Grade 6 ELA	13	34	34	60
Grade 6 Math	17	37	40	70
Grade 7 ELA	7	32	28	59
Grade 7 Math	14	28	32	57
Grade 8 ELA	14	47	27	66
Grade 8 Math	17	41	37	65

Aggregate and Subgroup Proficiency by Grade Span

A Comparison of Exceeding/Meeting Scores for Grade 10

	Students with Disabilities	Low Income	English Language Learners/ Former English Language Learners	All Students
Grade 10 ELA	22	54	26	77
Grade 10 Math	15	40	35	74
Grade 10 Science	4	25	41	59

Finally, as we review Shrewsbury's MCAS scores, it's important to consider the data in context. and helpful to compare local trends to patterns across the state. For this reason, information about how our results compare with area districts is included for each grade span.

SPS English Language Arts Scores By Grade Level

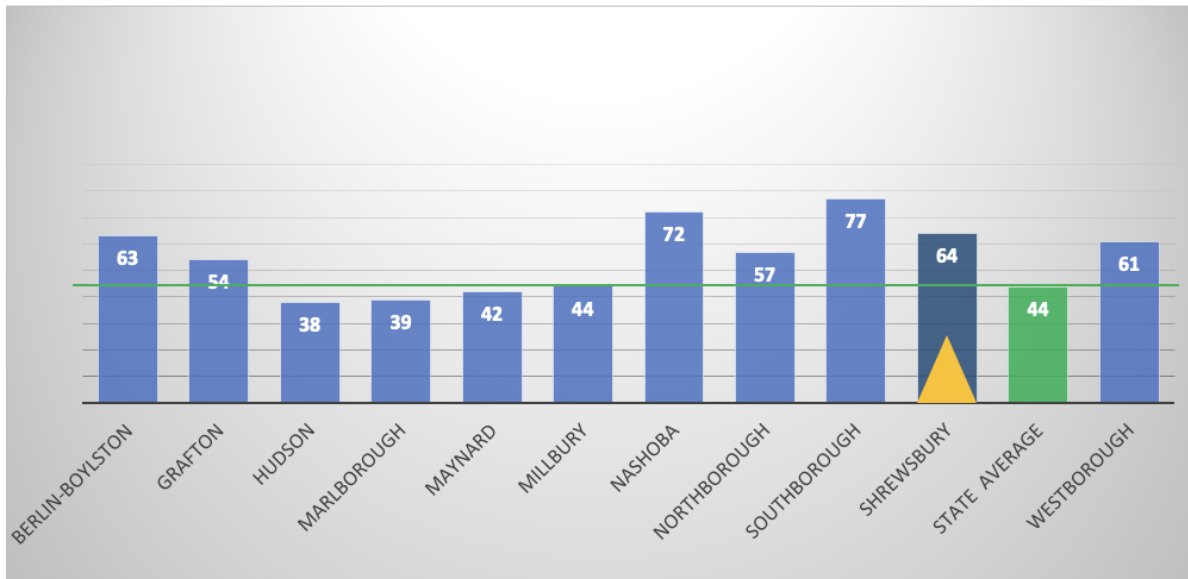## Grade 3 Student Achievement Scores in English Language Arts

% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	74	80	74	64
Exceeding	23	28	19	19
Meeting	51	52	55	45
Partially Meeting	21	16	22	31
Not Meeting	5	3	4	5

As shown in the table above, compared with 2019, English Language Arts scores for third graders dropped by approximately 10% post pandemic, with fewer students scoring in the Exceeding range. In 2022, only 64% of Grade 3 students met the state benchmark for proficiency in English Language Arts. Clearly, the loss of instructional time in the early grades for students in this cohort continues to impact achievement.

Comparisons with other districts in our area provide perspective on how our data compares within the region. The chart below depicts results for Grade 3 as compared with area districts.

Percentage of Students Meeting or Exceeding Expectations

Next-Gen MCAS ELA / Grade 3

Assabet Valley Collaborative District Comparisons

| District	Score
BERLIN-BOYLSTON	63
GRAFTON	54
HUDSON	38
MARLBOROUGH	39
MAYNARD	42
MILLBURY	44
NASHOBA	72
NORTHBOROUGH	57
SOUTHBOROUGH	77
SHREWSBURY	64
STATE AVERAGE	44
WESTBOROUGH	61

The Department of Secondary and Elementary education (DESE) also provides a wealth of comparative statistics. One helpful resource is DART, a district analysis and review tool that identifies districts most similar in terms of grade spans, total enrollment and special populations. The chart below shows that Shrewsbury's scores for Grade 3 are among the highest within our DART comparison districts.

Percentage of students Meeting or Exceeding Expectations

Next-Gen MCAS ELA / Grade 3

DART District Comparisons
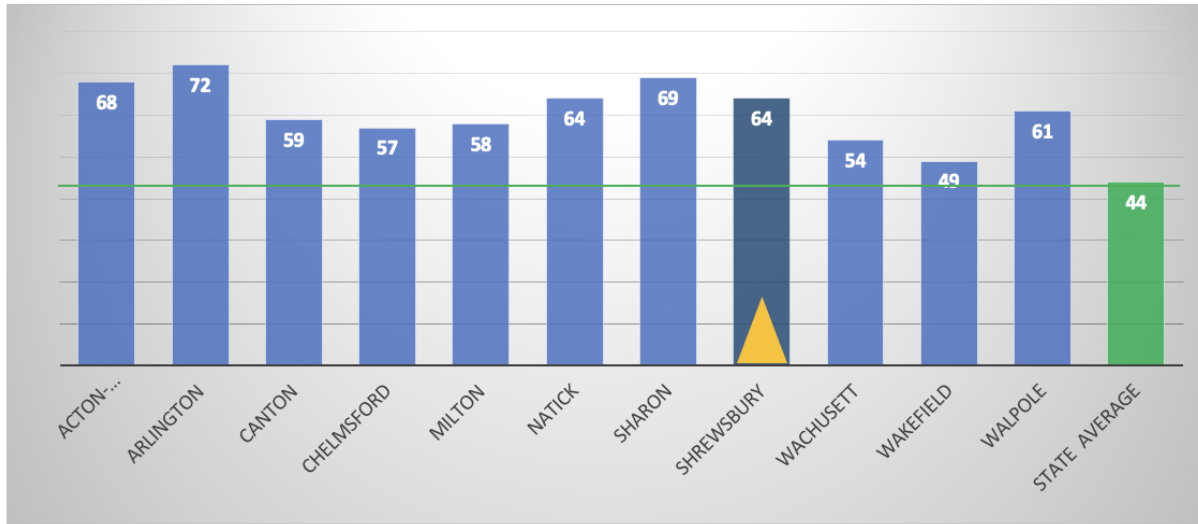
SPS ELA Grade 3 Subgroup Achievement Scores

A closer look at scores for third graders in various subgroups illustrates differences in rates of achievement. The Department of Elementary and Secondary Education calculates achievement level percentages for subgroups with ten or more students. For this reason, only subgroups that have available information are included.

Accountability Subgroups		% Proficient by Category			
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	25	3	22	48	28
EL and Former EL	45	7	38	51	4
Low Income	33	2	31	53	14
High Needs	41	4	37	46	13

Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American / Black	38	13	25	50	13
Asian	77	32	45	19	3
Hispanic / Latinx	51	4	47	42	7
Multi-Race, Non-Hispanic / Latinx	67	26	41	22	11
White	58	12	46	38	5

Grade 4 Student Achievement Scores in English Language Arts

Results for Grade 4 are similar to the data for Grade 3, with 60% of students scoring in the proficient range or better.

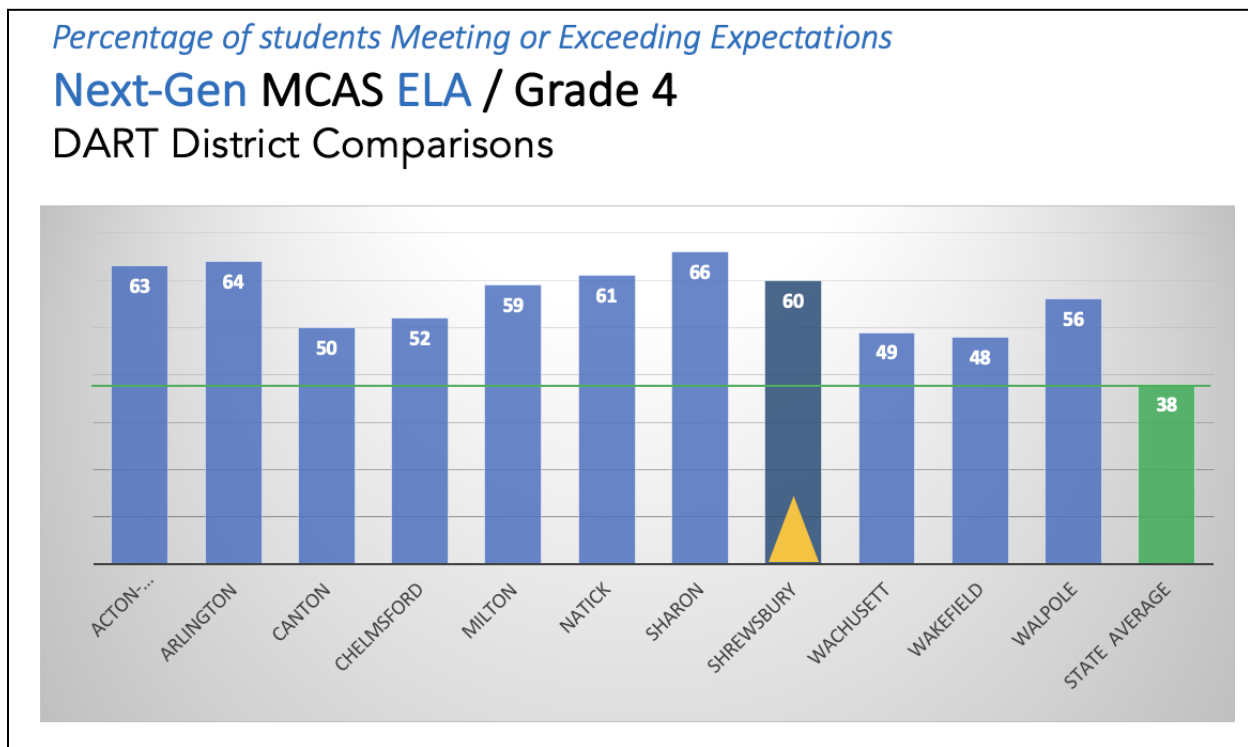| % by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	78	75	72	60
Exceeding	23	21	11	11
Meeting	55	54	61	49
Partially Meeting	18	20	25	34
Not Meeting	4	4	4	6
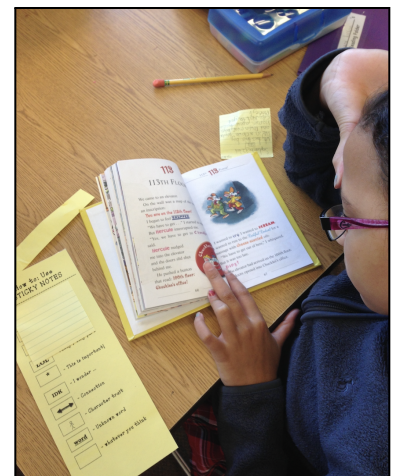
This graph shows how our Grade 4 students compare with fourth grade readers in nearby districts.

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 4
Assabet Valley Collaborative District Comparisons

District	Value
BERLIN-BOYLSTON	50
GRAFTON	47
HUDSON	30
MARLBOROUGH	28
MAYNARD	34
MILLBURY	50
NASHOBA	58
NORTHBOROUGH	60
SOUTHBOROUGH	77
SHREWSBURY	60
STATE AVERAGE	38
WESTBOROUGH	53
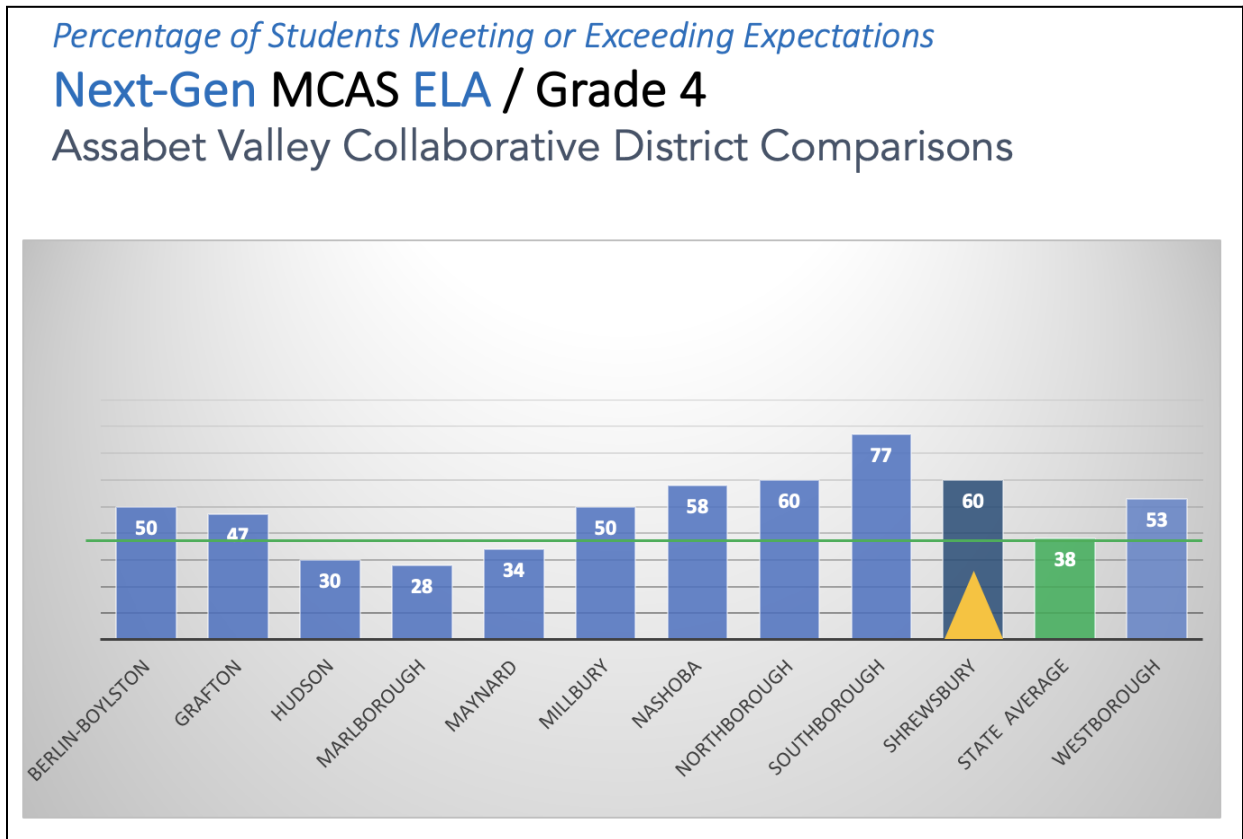
Grade 4 student scores in English Language Arts compare well with DART districts as well.

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 4
DART District Comparisons

District	Value
ACTON-…	63
ARLINGTON	64
CANTON	50
CHELMSFORD	52
MILTON	59
NATICK	61
SHARON	66
SHREWSBURY	60
WACHUSETT	49
WAKEFIELD	48
WALPOLE	56
STATE AVERAGE	38

SPS ELA Grade 4 Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	16	0	16	53	31
EL and Former EL	41	4	37	49	10
Low Income	33	4	29	55	12
High Needs	33	3	30	51	15

Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American / Black	47	7	40	53	0
Asian	68	16	52	29	3
Hispanic / Latinx	38	0	38	41	22
Multi-Race, Non-Hispanic / Latinx	81	19	62	15	4
White	57	9	48	38	6

Grade 5 Student Achievement Scores in English Language Arts

| % by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	74	70	62	59
Exceeding	15	13	13	7
Meeting	59	57	49	52
Partially Meeting	22	27	34	35
Not Meeting	3	3	5	5

In Grade 5, 59 % of students reached proficiency benchmarks in 2022, with significantly fewer students scoring in the Exceeding range as compared to 2019. Overall the percentage of students in Shrewsbury scoring at or above the state benchmark remained relatively flat.

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 5
Assabet Valley Collaborative District Comparisons

District	Value
Berlin-Boylston	49
Grafton	49
Hudson	33
Marlborough	26
Maynard	44
Millbury	40
Nashoba	60
Northborough	46
Southborough	69
Shrewsbury	60
State Average	41
Westborough	65
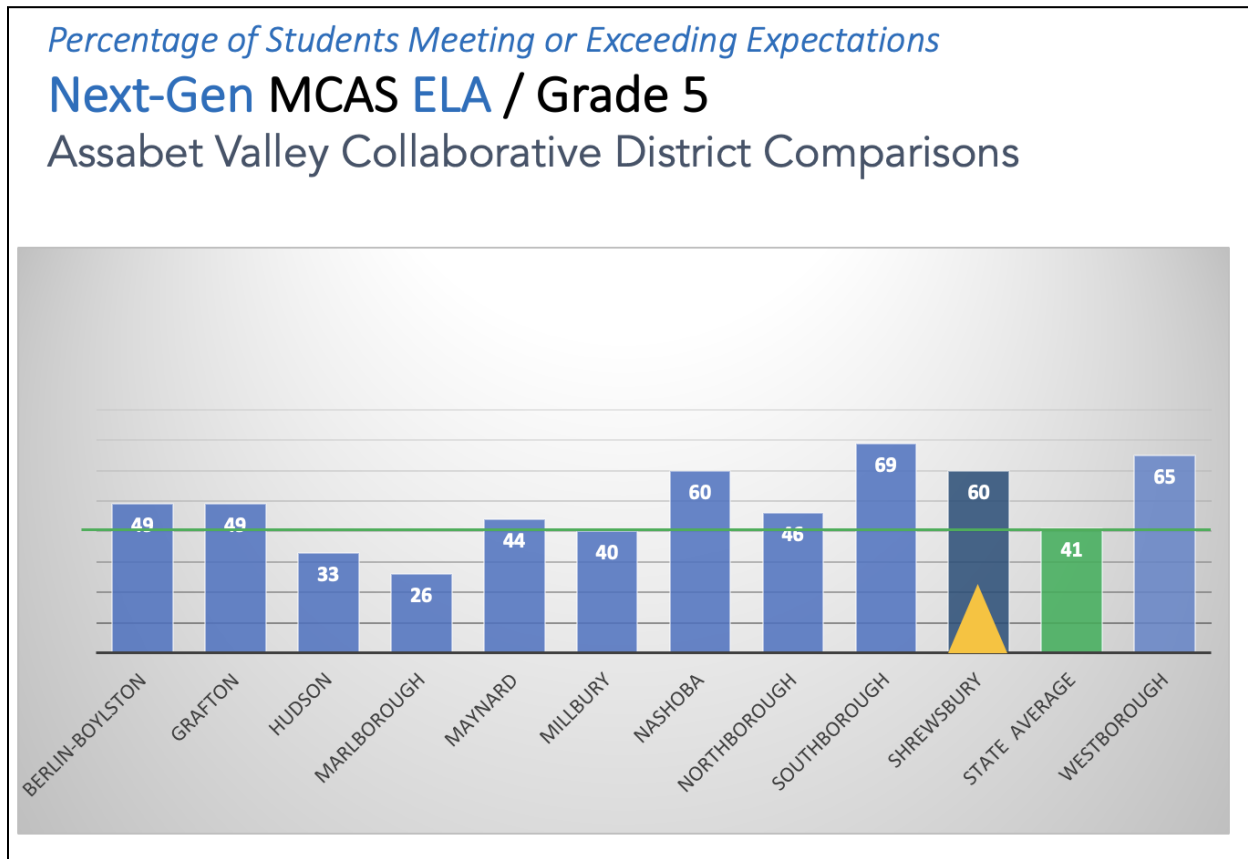
Please Note: Achievement score percentiles are rounded up, so for some grade spans there is a difference in the number of students reported for each scoring category and the total number of students earning "Exceeding / Meeting". For example, if 7.4% of students earned a score in the "Exceeding" range and 52.4% of students earned a "Meeting" score, those numbers would be rounded to 7 and 52 respectively. However the total number of students scoring "Meeting" or better will total 60 to reflect the additional .8% adjustment by the Department of Elementary and Secondary Education. This is the case for both Grade 5 and Grade 6.

While Shrewsbury students continued to outperform the state average, the percentage of students in Shrewsbury that met or exceeded achievement goals in English Language Arts in fifth grade remained 10-15% lower than pre-pandemic scores.

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 5
DART District Comparisons
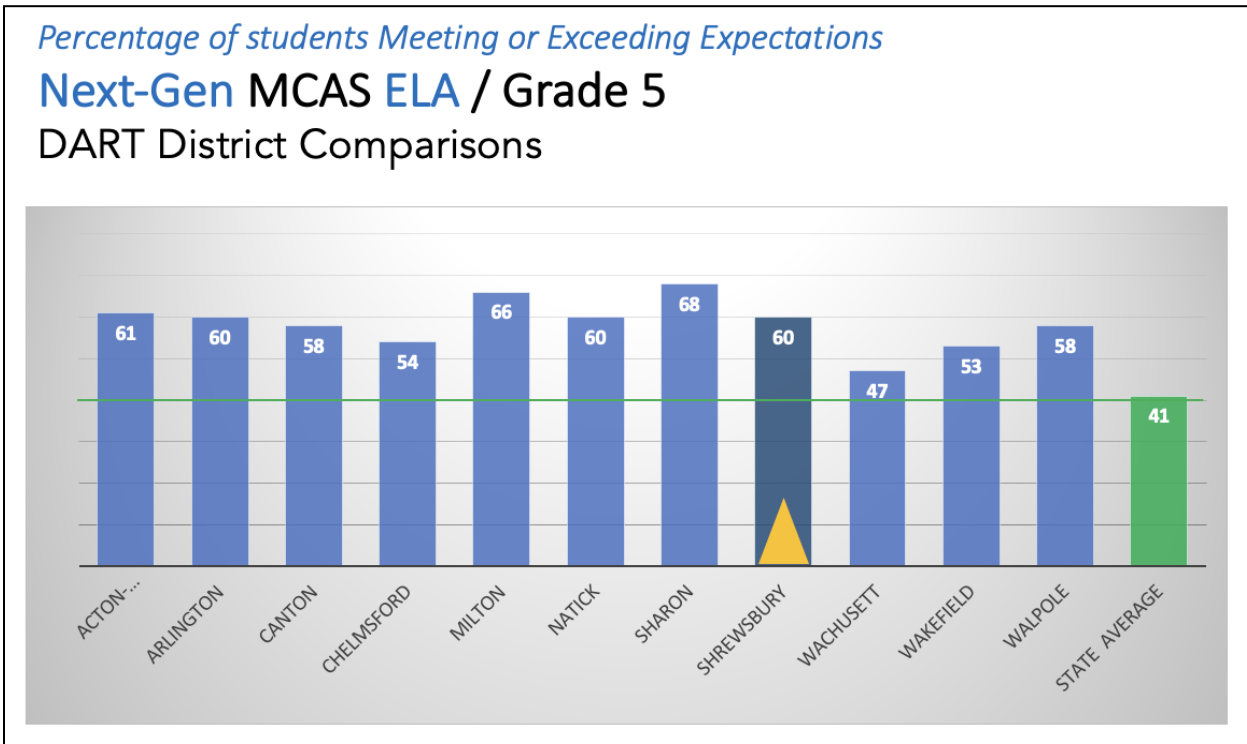
SPS ELA Grade 5 Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	19	0	19	55	27
EL and Former EL	50	4	46	46	4
Low Income	31	4	27	55	13
High Needs	37	4	33	50	13

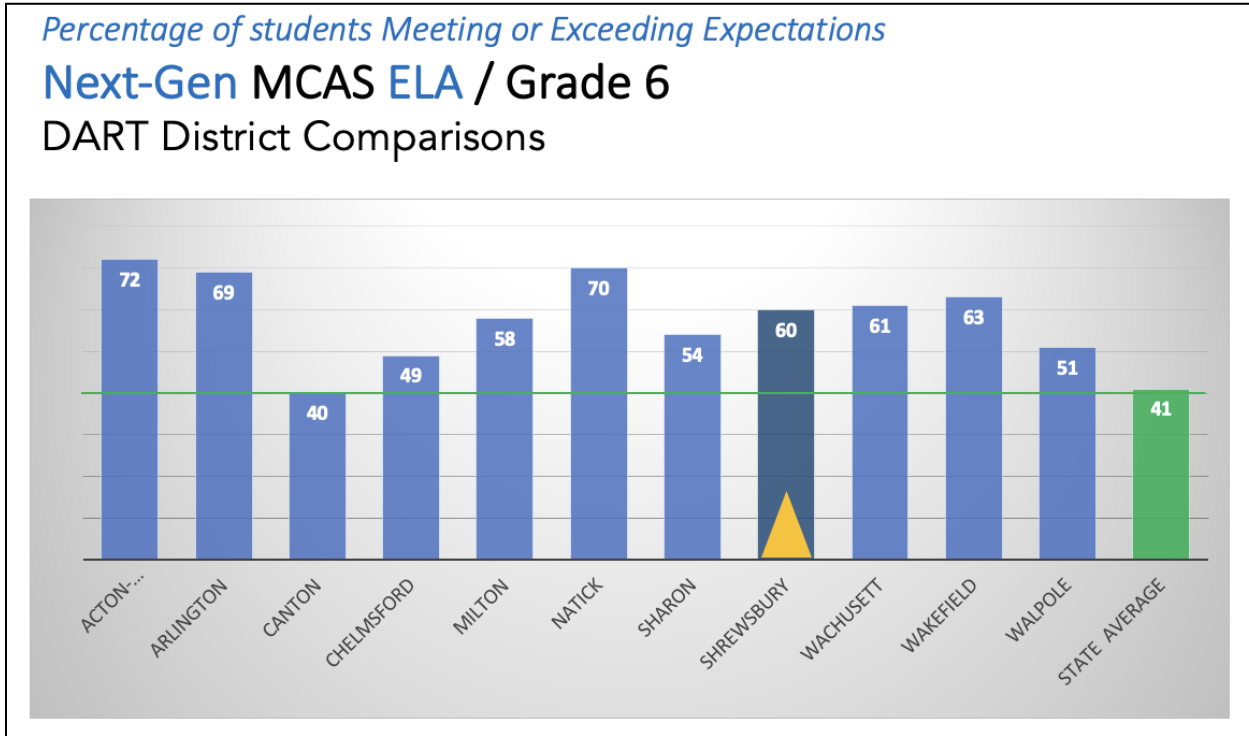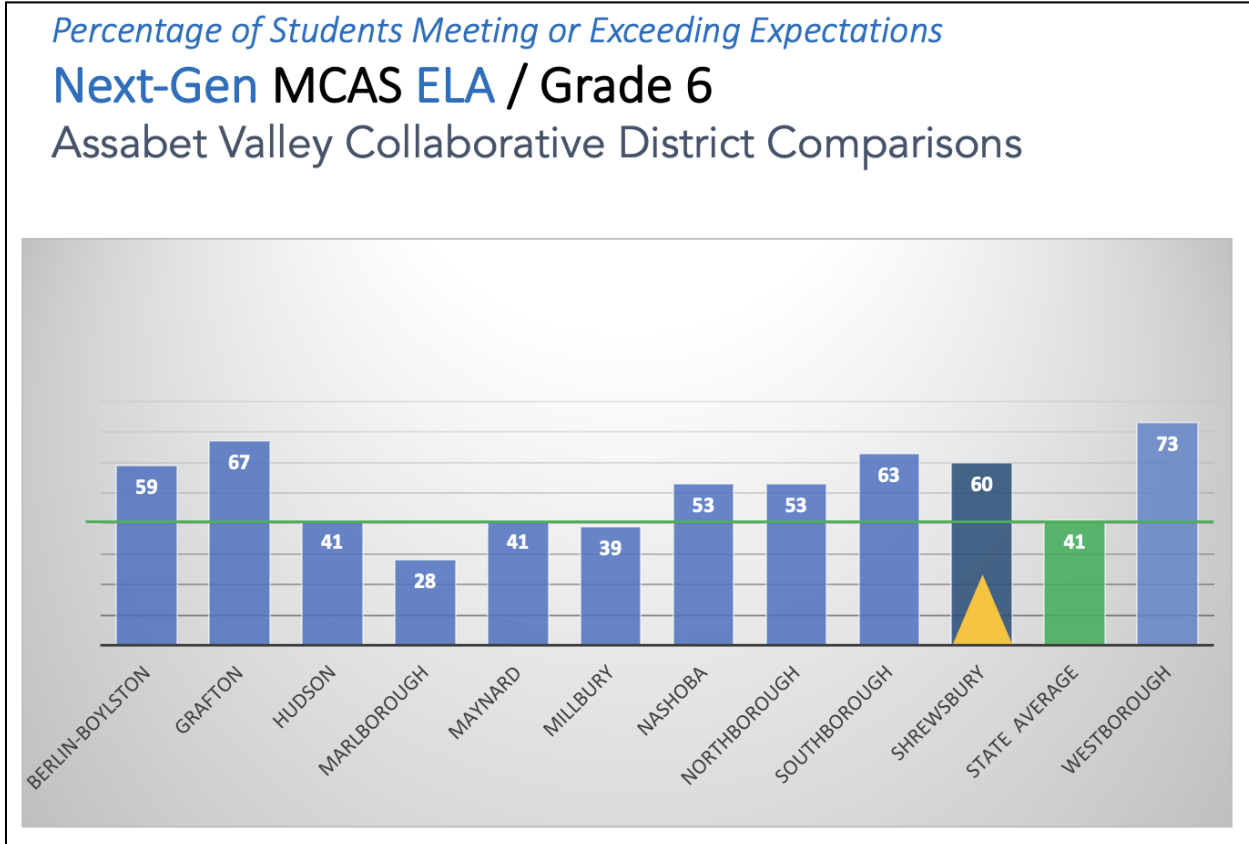| Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American / Black	26	0	26	68	5
Asian	75	11	64	24	2
Hispanic / Latinx	37	4	33	55	8
Multi-Race, Non-Hispanic / Latinx	62	10	52	29	10
White	56	6	50	38	6

Grade 6 Student Achievement Scores in English Language Arts

61% of students in Grade 6 met or exceeded state benchmarks in English Language Arts in 2022, down 6% from last year and 10% from 2019.

% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	73	73	67	61
Exceeding	22	27	22	17
Meeting	51	46	45	44
Partially Meeting	23	20	22	32
Not Meeting	4	7	11	8

As shown below our students scored above the state average.

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 6
Assabet Valley Collaborative District Comparisons

District	%
BERLIN-BOYLSTON	59
GRAFTON	67
HUDSON	41
MARLBOROUGH	28
MAYNARD	41
MILLBURY	39
NASHOBA	53
NORTHBOROUGH	53
SOUTHBOROUGH	63
SHREWSBURY	60
STATE AVERAGE	41
WESTBOROUGH	73

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 6
DART District Comparisons

District	%
ACTON-...	72
ARLINGTON	69
CANTON	40
CHELMSFORD	49
MILTON	58
NATICK	70
SHARON	54
SHREWSBURY	60
WACHUSETT	61
WAKEFIELD	63
WALPOLE	51
STATE AVERAGE	41

SPS Grade 6 ELA Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	13	1	12	49	38
EL and Former EL	34	2	32	39	27
Low Income	34	3	31	48	17
High Needs	32	3	29	45	24

Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	44	13	31	50	6
Asian	75	29	46	19	6
Hispanic/Latinx	33	9	24	48	20
Multi-Race, Non-Hispanic/Latinx	67	17	50	33	0
White	55	9	46	37	8

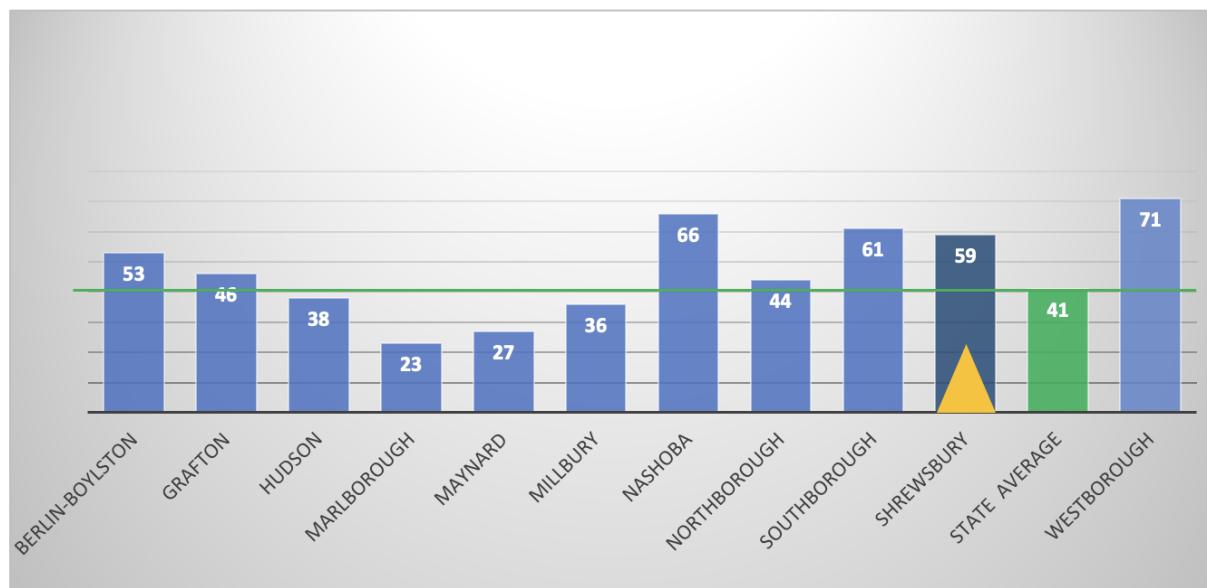# Grade 7 Student Achievement Scores in English Language Arts

58% of students in Grade 7 met the state benchmark in Reading in 2022, the fourth year in a row where scores in English Language Arts declined for this grade.

% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	68	62	59	58
Exceeding	20	14	8	6
Meeting	48	48	51	52
Partially Meeting	23	31	32	32
Not Meeting	9	7	9	9

Percentage of Students Meeting or Exceeding Expectations
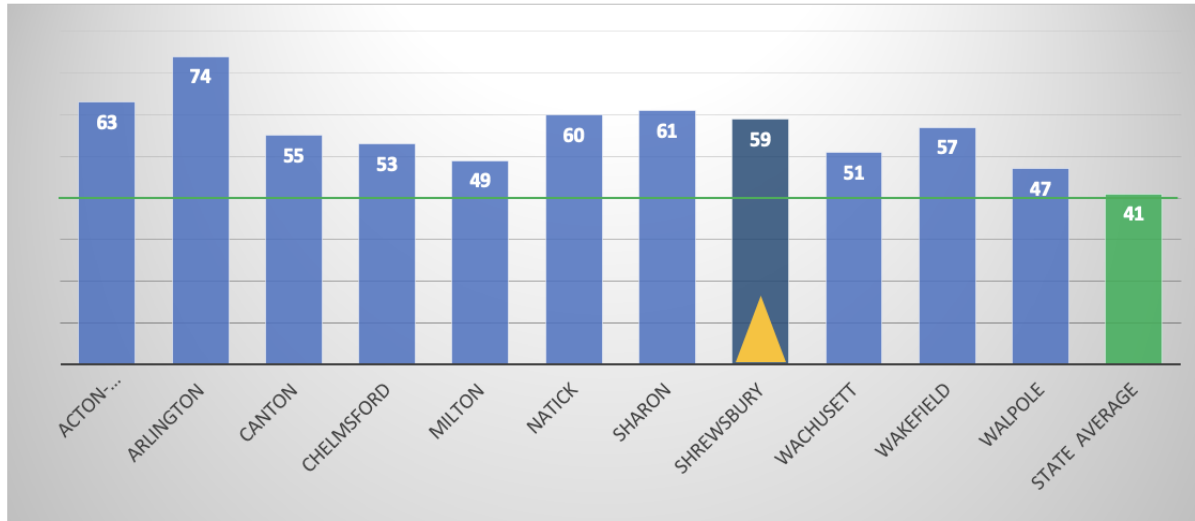## Next-Gen MCAS ELA / Grade 7
Assabet Valley Collaborative District Comparisons

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 7
DART District Comparisons

SPS ELA Grade 7 Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	7	0	7	46	47
EL and Former EL	28	0	28	53	19
Low Income	32	1	31	49	19
High Needs	28	1	27	47	25

Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	40	0	40	33	27
Asian	78	16	62	15	7
Hispanic/Latinx	27	2	25	57	16
Multi-Race, Non-Hispanic/Latinx	58	8	50	31	12
White	54	1	53	38	8

Grade 8 Student Achievement Scores in English Language Arts

66% of Shrewsbury students in Grade 8 scored in the "Meeting" or "Exceeding" range last spring. Although this result is relatively low when compared to pre-pandemic scores, this is an increase over 2021 and Shrewsbury's scores continue to align with results seen in comparison districts for this grade span.
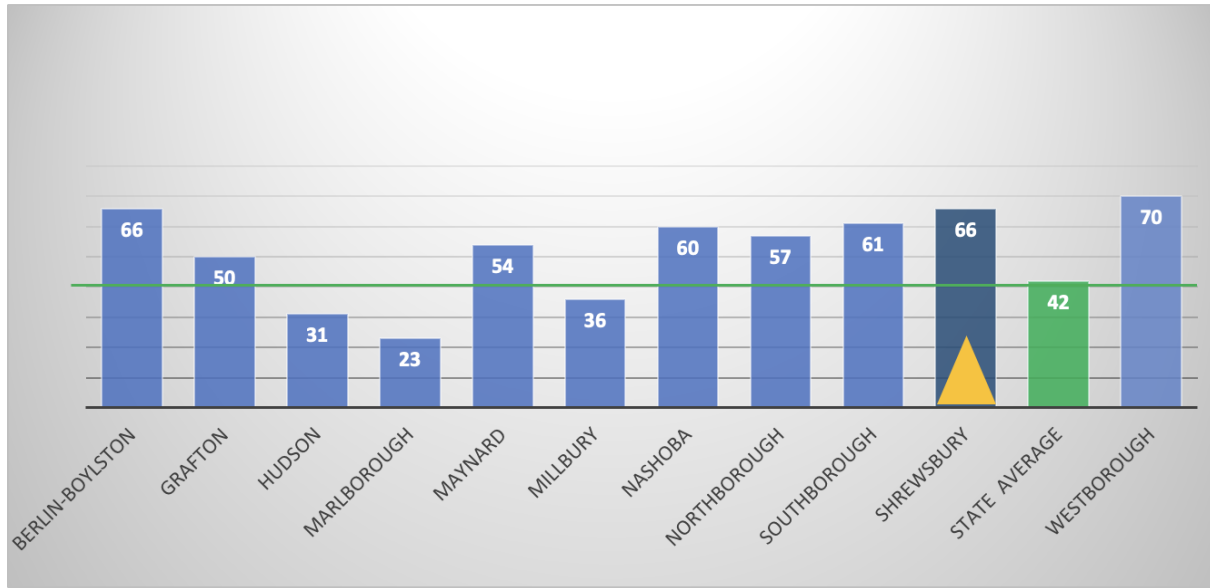
% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	70	72	62	66
Exceeding	18	26	16	19
Meeting	52	46	46	47
Partially Meeting	24	20	30	27
Not Meeting	6	7	8	7

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 8
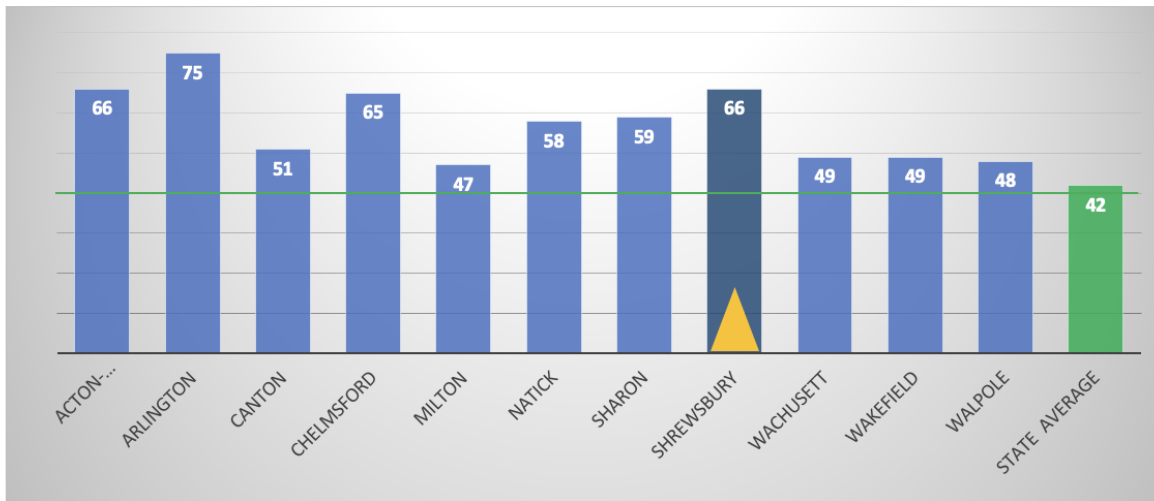Assabet Valley Collaborative District Comparisons

The graph above shows how Shrewsbury's eighth graders compare with students from districts with similar demographics.

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 8
DART District Comparisons

SPS ELA Grade 8 Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	14	1	13	49	38
EL and Former EL	27	7	20	53	20
Low Income	47	10	37	33	20
High Needs	36	7	29	41	23

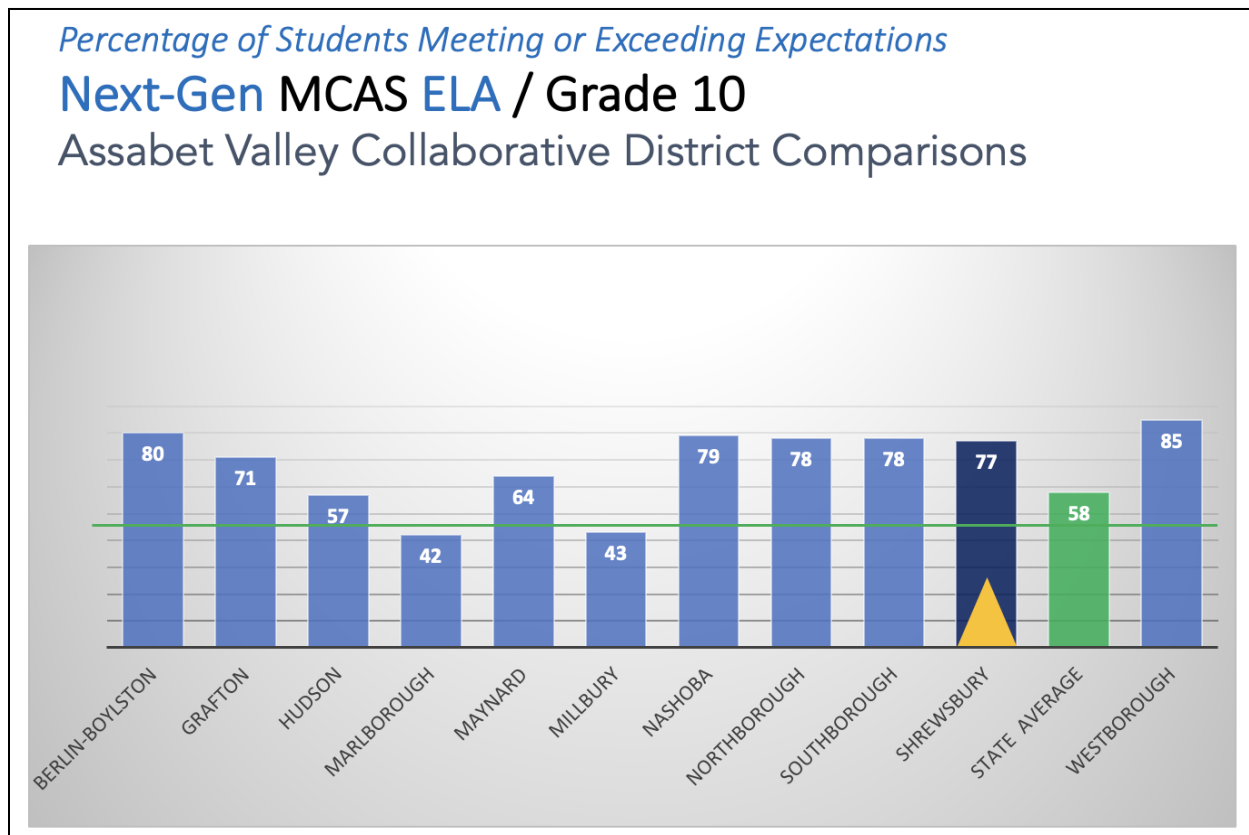| Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	73	18	55	27	0
Asian	82	31	51	14	4
Hispanic/Latinx	44	7	37	35	21
Multi-Race, Non-Hispanic/Latinx	46	14	32	43	11
White	61	14	47	33	6

Grade 10 Student Achievement Scores in English Language Arts

78% of students in Grade 10 earned a score of "Meeting" or "Exceeding" last spring. While the number of students considered proficient is similar to 2019, the difference in the number of students scoring in the "Exceeding" range is notable.

| % by level	2019	2021	2022
Proficient (Exceeding + Meeting)	79	83	78
Exceeding	25	35	14
Meeting	54	48	64
Partially Meeting	18	12	19
Not Meeting	3	4	3

Looking at assessment information from area districts provides additional perspective on our results.

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 10
Assabet Valley Collaborative District Comparisons

BERLIN-BOYLSTON	GRAFTON	HUDSON	MARLBOROUGH	MAYNARD	MILLBURY	NASHOBA	NORTHBOROUGH	SOUTHBOROUGH	SHREWSBURY	STATE AVERAGE	WESTBOROUGH
80	71	57	42	64	43	79	78	78	77	58	85

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS ELA / Grade 10
DART District Comparisons
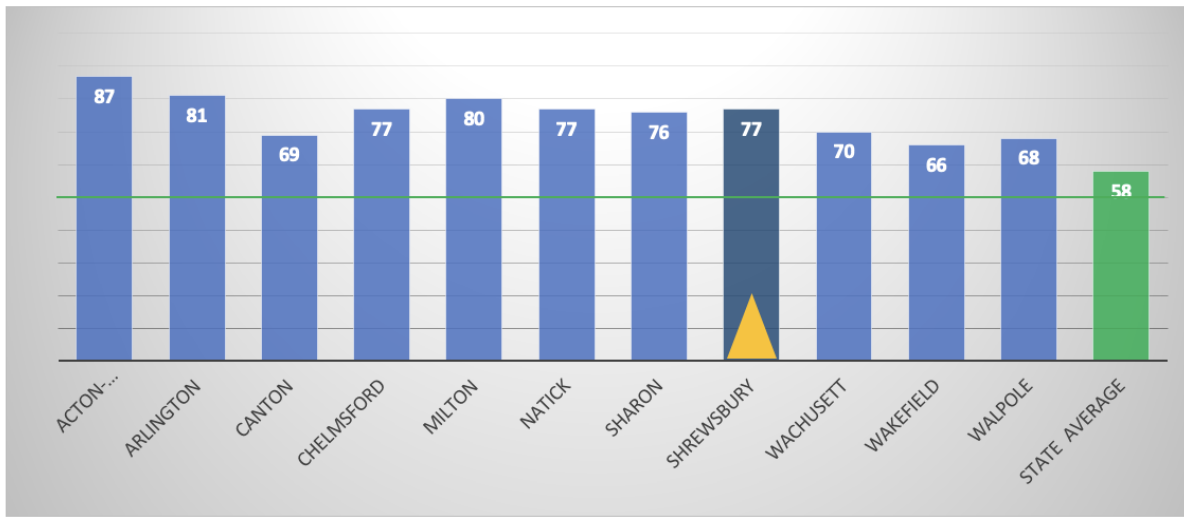
SPS ELA Grade 10 Subgroup Achievement Scores

Accountability Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	22	0	22	54	24
EL and Former EL	26	0	26	57	17
Low Income	54	3	51	35	12
High Needs	46	2	44	42	13

Race & Ethnicity Subgroups	% Proficient by Category				
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American./Black	75	15	60	15	10
Asian	93	24	69	7	1
Hispanic/Latinx	45	3	42	42	13
Multi-Race, Non-Hisp./Latinx	71	18	53	29	0
White	75	10	65	22	3

Trends in English Language Arts

As shown below, it's clear that the disruption caused by the pandemic impacted achievement scores, especially for students in key transition years. At the same time, assessment results must be considered in context. Shrewsbury's scores have been consistently higher than state averages, and that trend held true in English Language Arts for 2022. Finally, aggregate scores for our district compared well with other districts that have similar demographics.

Percentage of Students Meeting or Exceeding Expectations

| Grade and Subject	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Gr 8	Gr. 10
Shrewsbury % E / M 2019	81%	76%	71%	73%	62%	72%	79%
State Results 2019	56%	52%	52%	53%	48%	52%	61%
Shrewsbury % E / M 2021	74%	72%	61%	67%	59%	62%	84%
State Results 2021	51%	49%	47%	47%	43%	41%	64%
Shrewsbury % E / M 2022	64%	60%	59%	61%	58%	66%	78%
State Results 2022	44%	38%	41%	41%	41%	42%	58%

Mathematics Scores By Grade Level

Grade 3 Student Achievement Scores in Mathematics

Prior to the pandemic, Shrewsbury's students were making steady gains in Math – especially in the younger grades. In 2022, 68% of students met or exceeded state benchmarks, which reflects an increase of 6% from last year. At the same time, Shrewsbury's scores for this grade span compare well with scores from other districts.

| % by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	73	75	62	68
Exceeding	23	22	14	16
Meeting	50	53	48	52
Partially Meeting	20	19	31	24
Not Meeting	8	5	7	8
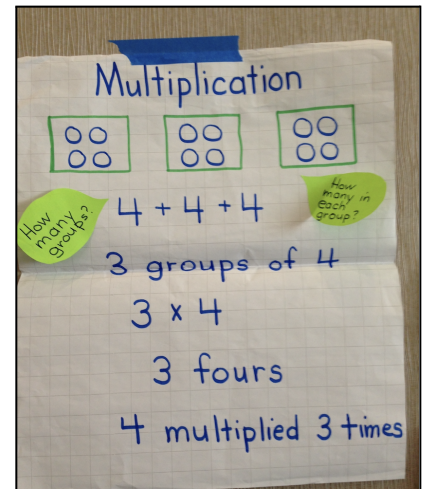
The graphs that follow illustrate how Shrewsbury's student scores in Grade 3 compare to student achievement scores in nearby districts.

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 3
Assabet Valley Collaborative District Comparisons
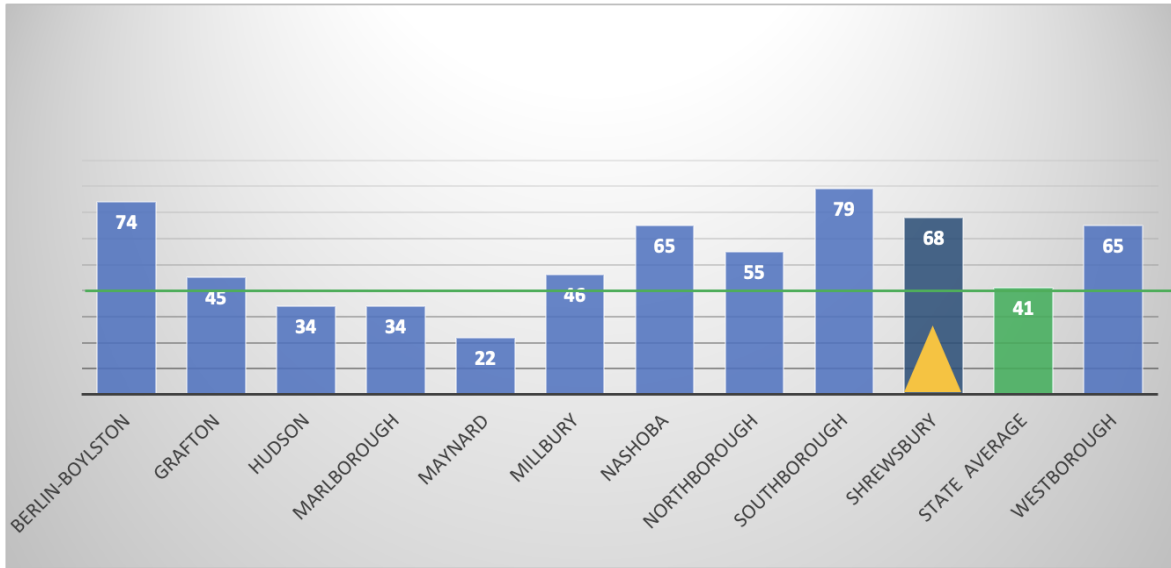
Across the Commonwealth, Math achievement scores are recovering faster than English Language Arts. This is true for Shrewsbury's students as well. Last spring Grade 3 student scores were the highest when compared to districts with similar enrollment.

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 3
DART District Comparisons
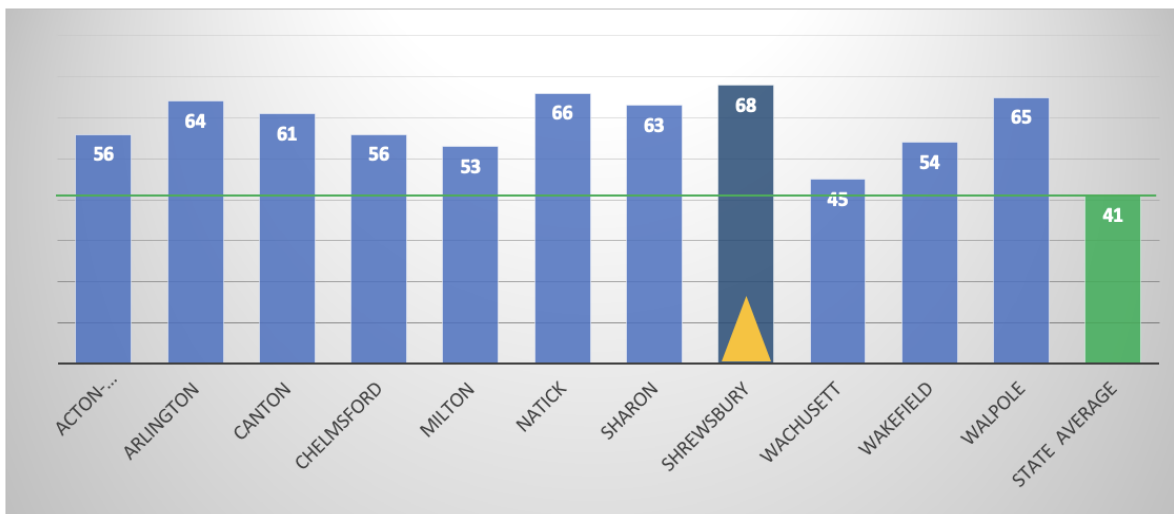
SPS Math Grade 3 Subgroup Achievement Scores

Looking at subgroup trends provides another perspective on Math achievement scores.

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	22	8	14	45	34
EL and Former EL	62	6	56	33	6
Low Income	35	1	34	41	24
High Needs	43	5	38	36	21

| Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	47	7	40	33	20
Asian	82	27	55	14	5
Hispanic/Latinx	47	7	40	36	18
Multi-Race, Non-Hispanic/Latinx	59	15	44	33	7
White	64	10	54	29	7

Grade 4 Student Achievement Scores in Mathematics

The number of Grade 4 students scoring in the "Meeting" category remained flat in Math. However the amount of students scoring in the "Exceeding" range increased in 2022. In the aggregate, 70% of students earned a score of "Meeting" or better.

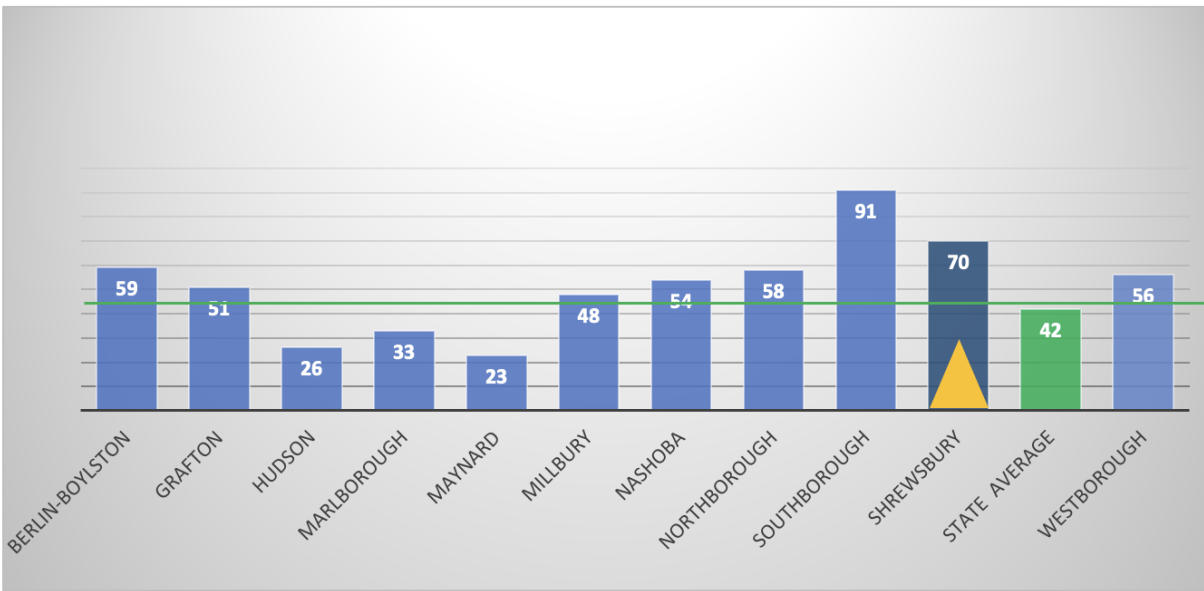| % by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	72	79	64	70
Exceeding	21	28	14	21
Meeting	51	51	50	49
Partially Meeting	25	16	29	25
Not Meeting	3	5	7	4
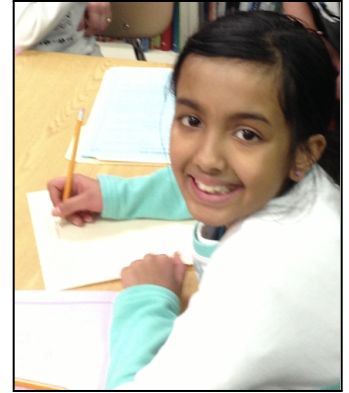
Shrewsbury's Grade 4 Math scores are among the highest in the Assabet Valley Collaborative, and compare well with DART district results as well.
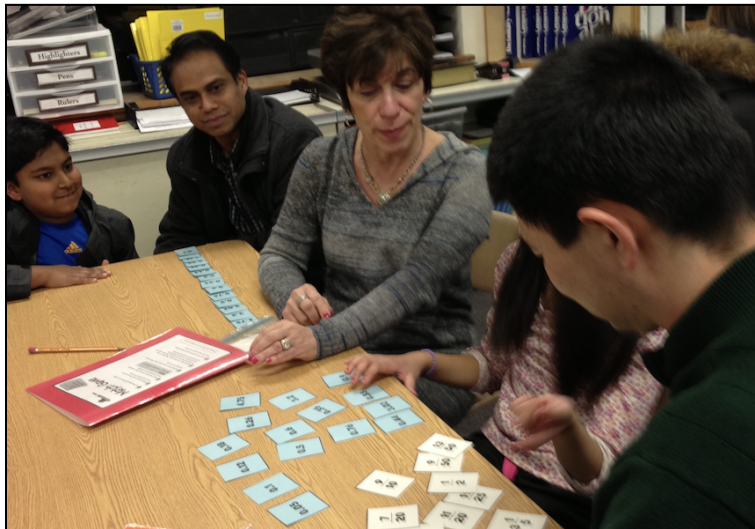
Percentage of Students Meeting or Exceeding Expectations
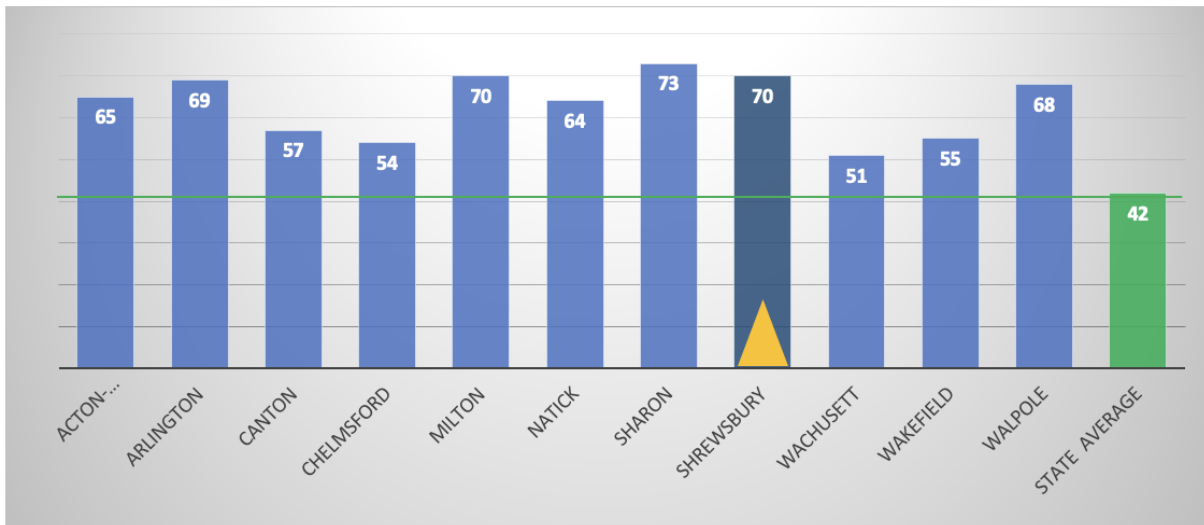# Next-Gen MCAS Math / Grade 4
Assabet Valley Collaborative District Comparisons

Bar chart — Assabet Valley Collaborative District Comparisons:
- BERLIN-BOYLSTON: 59
- GRAFTON: 51
- HUDSON: 26
- MARLBOROUGH: 33
- MAYNARD: 23
- MILLBURY: 48
- NASHOBA: 54
- NORTHBOROUGH: 58
- SOUTHBOROUGH: 91
- SHREWSBURY: 70
- STATE AVERAGE: 42
- WESTBOROUGH: 56

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 4
DART District Comparisons

Bar chart — DART District Comparisons:
- ACTON-…: 65
- ARLINGTON: 69
- CANTON: 57
- CHELMSFORD: 54
- MILTON: 70
- NATICK: 64
- SHARON: 73
- SHREWSBURY: 70
- WACHUSETT: 51
- WAKEFIELD: 55
- WALPOLE: 68
- STATE AVERAGE: 42

SPS Math Grade 4 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	25	6	19	49	26
EL and Former EL	53	10	43	43	4
Low Income	44	5	39	46	10
High Needs	46	8	38	43	11

Race & Ethnic Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	57	7	50	43	0
Asian	81	32	49	16	3
Hispanic/Latinx	51	5	46	35	14
Multi-Race, Non-Hispanic/Latinx	69	27	42	27	4
White	66	15	51	30	5

# Grade 5 Student Achievement Scores in Mathematics

If MCAS is a checkup, scores for Grade 5 continue to merit extra attention. This year only 50% of students met that threshold. In contrast, 72% of Grade 5 students met or exceeded the state grade level benchmark in Math in 2019. The decrease is notable and important to monitor, particularly because Grade 5 students in several comparative districts fared better.

% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	70	72	54	50
Exceeding	15	14	10	8
Meeting	55	58	44	42
Partially Meeting	24	25	38	43
Not Meeting	6	2	7	8

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 5
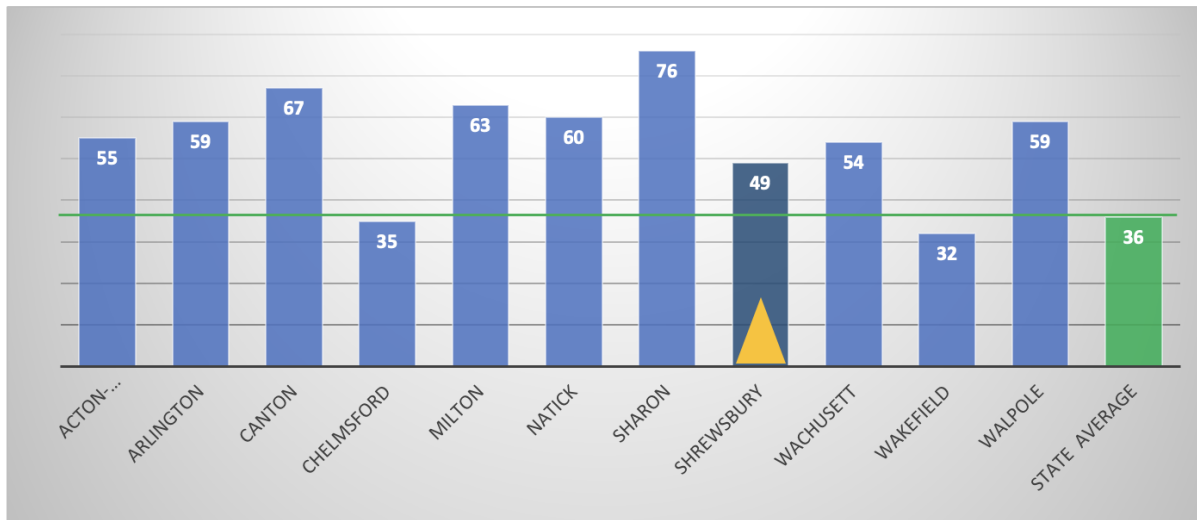Assabet Valley Collaborative District Comparisons
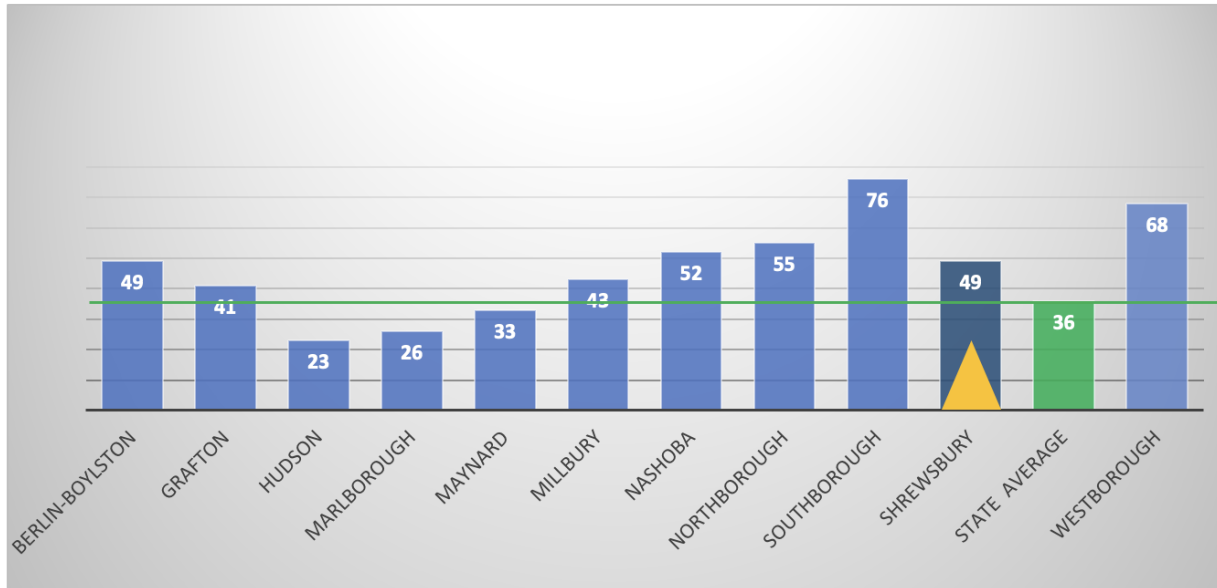
Shrewsbury's scores are much lower than Grade 5 scores for students in DART districts.

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 5
DART District Comparisons

Lower Math scores in the aggregate for Grade 5 students are also reflected in the differences seen between the average achievement scores and subgroup scores for the grade.

SPS Math Grade 5 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	16	2	14	42	42
EL and Former EL	39	4	35	48	13
Low Income	17	1	16	59	23
High Needs	26	2	24	52	22

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	10	5	5	68	21
Asian	74	16	58	24	2
Hispanic/Latinx	20	2	18	61	18
Multi-Race, Non-Hispanic/Latinx	38	5	33	57	5
White	37	1	36	53	10

Grade 6 Student Achievement Scores in Mathematics

At the middle level, most districts saw Math scores rebound in 2022. Last spring 70% of students at this level scored in the "Meeting" or "Exceeding" range, a significant increase from last year. This result aligns with pre-pandemic scores.

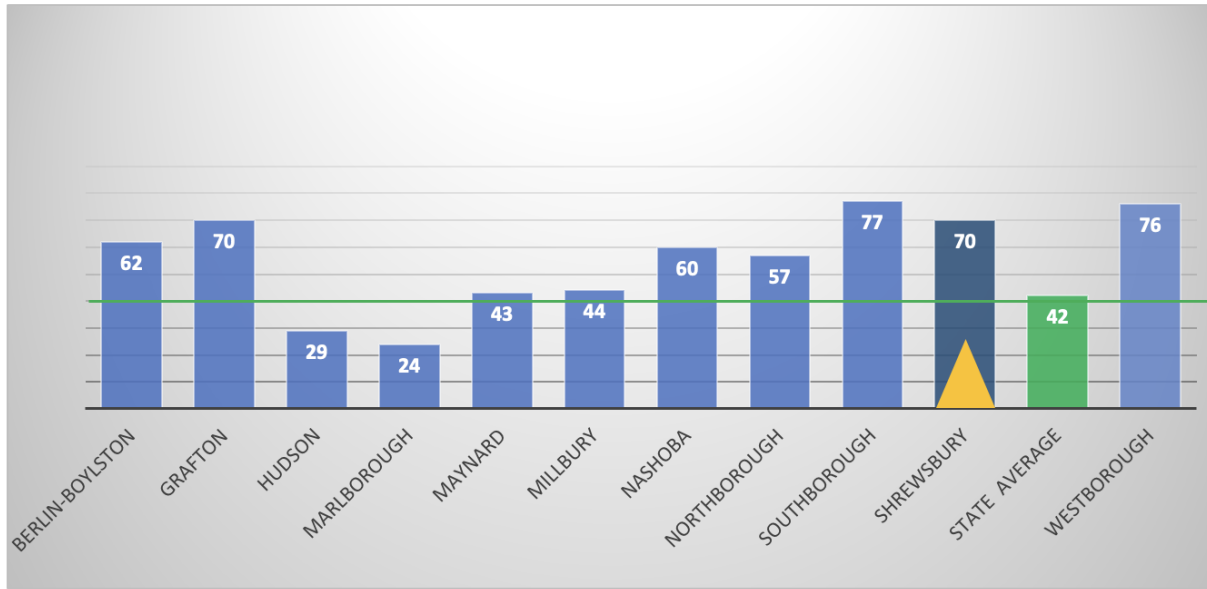| % by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	70	69	57	70
Exceeding	14	22	12	17
Meeting	56	47	45	53
Partially Meeting	25	24	32	23
Not Meeting	5	7	11	7

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 6
Assabet Valley Collaborative District Comparisons

Chart data — Percentage Meeting or Exceeding Expectations:
- BERLIN-BOYLSTON: 62
- GRAFTON: 70
- HUDSON: 29
- MARLBOROUGH: 24
- MAYNARD: 43
- MILLBURY: 44
- NASHOBA: 60
- NORTHBOROUGH: 57
- SOUTHBOROUGH: 77
- SHREWSBURY: 70
- STATE AVERAGE: 42
- WESTBOROUGH: 76

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 6
DART District Comparisons

Chart data — Percentage Meeting or Exceeding Expectations:
- ACTON-…: 77
- ARLINGTON: 70
- CANTON: 42
- CHELMSFORD: 59
- MILTON: 51
- NATICK: 73
- SHARON: 68
- SHREWSBURY: 70
- WACHUSETT: 61
- WAKEFIELD: 58
- WALPOLE: 72
- STATE AVERAGE: 42
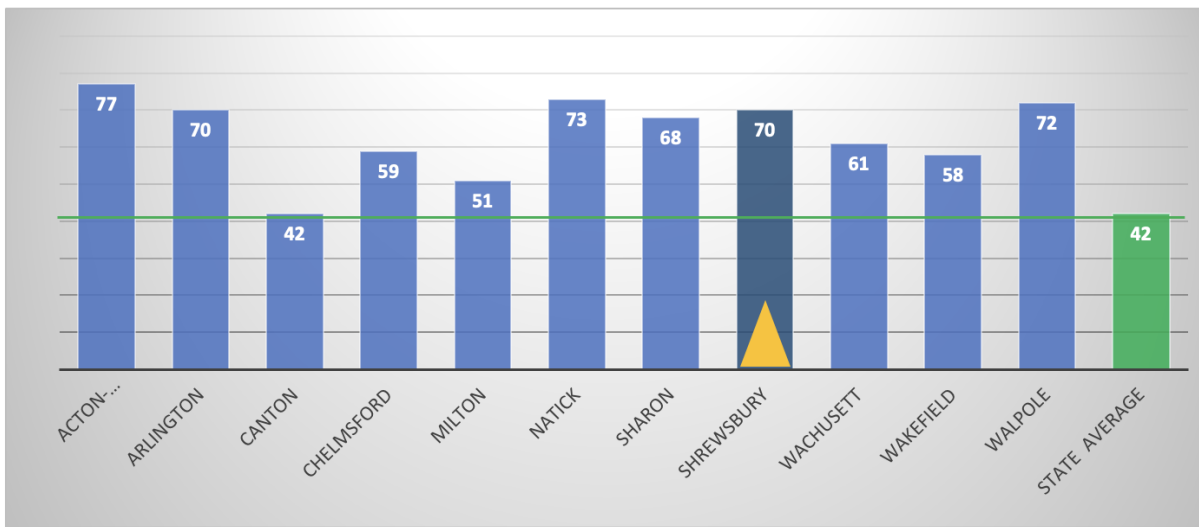
SPS Math Grade 6 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	17	1	16	41	42
EL and Former EL	40	5	35	45	15
Low Income	37	1	36	44	19
High Needs	38	3	35	40	22

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	57	13	44	38	6
Asian	84	35	49	12	3
Hispanic/Latinx	41	4	37	37	22
Multi-Race, Non-Hispanic/Latinx	67	11	56	33	0
White	67	7	60	26	8

Grade 7 Student Achievement Scores in Mathematics

56% of students at this grade span scored in the "Meeting" range or better in 2022, compared to 62% in 2019. Although results for this grade span are lower overall, Shrewsbury's scores remain significantly higher than the state average.
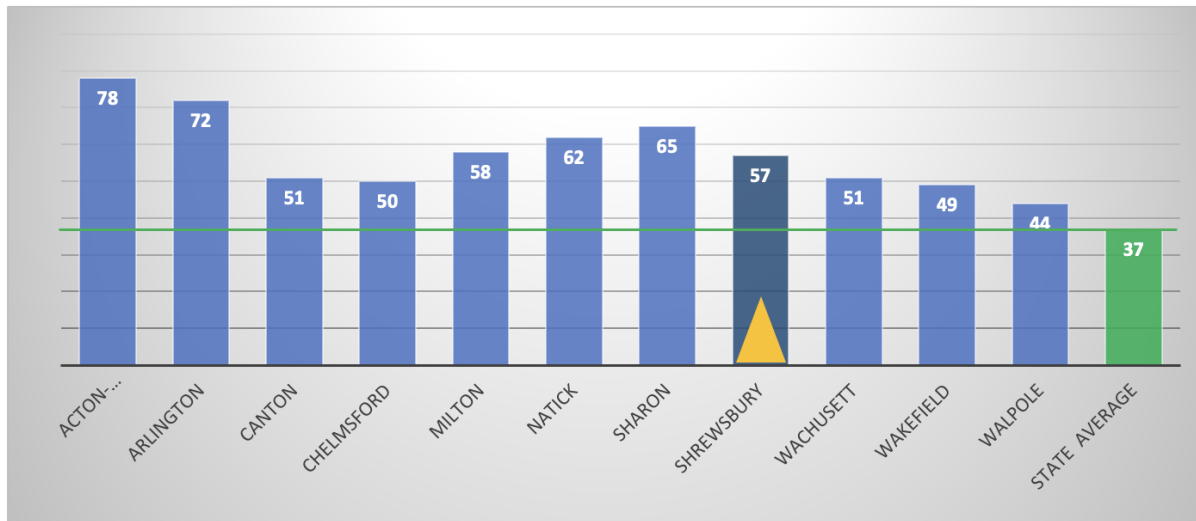
% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	65	62	59	56
Exceeding	14	17	17	14
Meeting	51	45	42	42
Partially Meeting	27	32	35	33
Not Meeting	8	6	7	10

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 7
Assabet Valley Collaborative District Comparisons
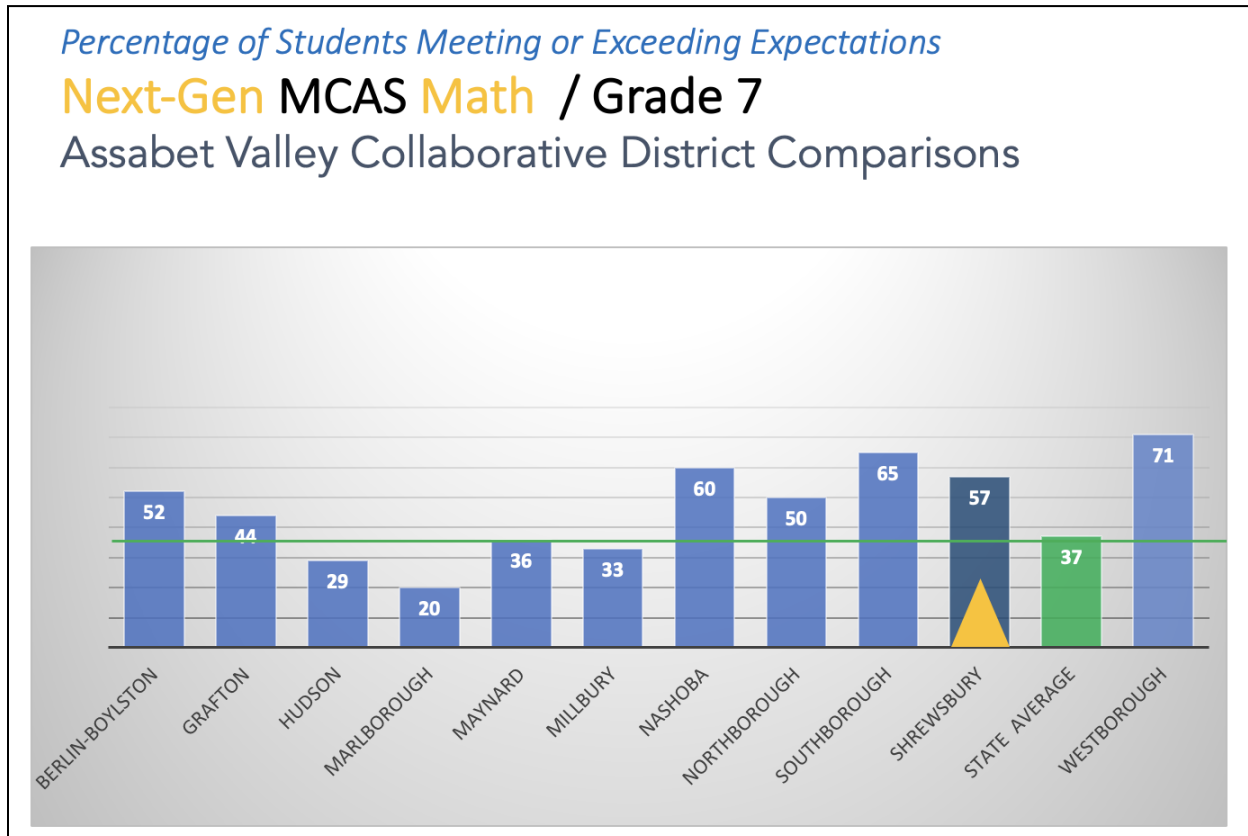
Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 7
DART District Comparisons

Chart values: ACTON-... 78, ARLINGTON 72, CANTON 51, CHELMSFORD 50, MILTON 58, NATICK 62, SHARON 65, SHREWSBURY 57, WACHUSETT 51, WAKEFIELD 49, WALPOLE 44, STATE AVERAGE 37

SPS Math Grade 7 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	14	1	13	36	50
EL and Former EL	32	4	28	53	15
Low Income	28	4	24	47	24
High Needs	28	4	24	43	28

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	27	0	27	53	20
Asian	81	34	47	13	6
Hispanic/Latinx	25	4	21	56	19
Multi-Race, Non-Hispanic/Latinx	77	8	69	15	8
White	47	5	42	42	11

Grade 8 Student Achievement Scores in Mathematics

Math scores for students in Grade 8 increased slightly over last year. 65% of students met state benchmarks as compared to 68% in 2019.

% by level	2018	2019	2021	2022
Proficient (Exceeding + Meeting)	71	68	61	65
Exceeding	17	26	14	21
Meeting	54	42	47	44
Partially Meeting	25	27	29	28
Not Meeting	4	5	9	7

Shrewsbury's scores for this grade span are among the highest in the area.
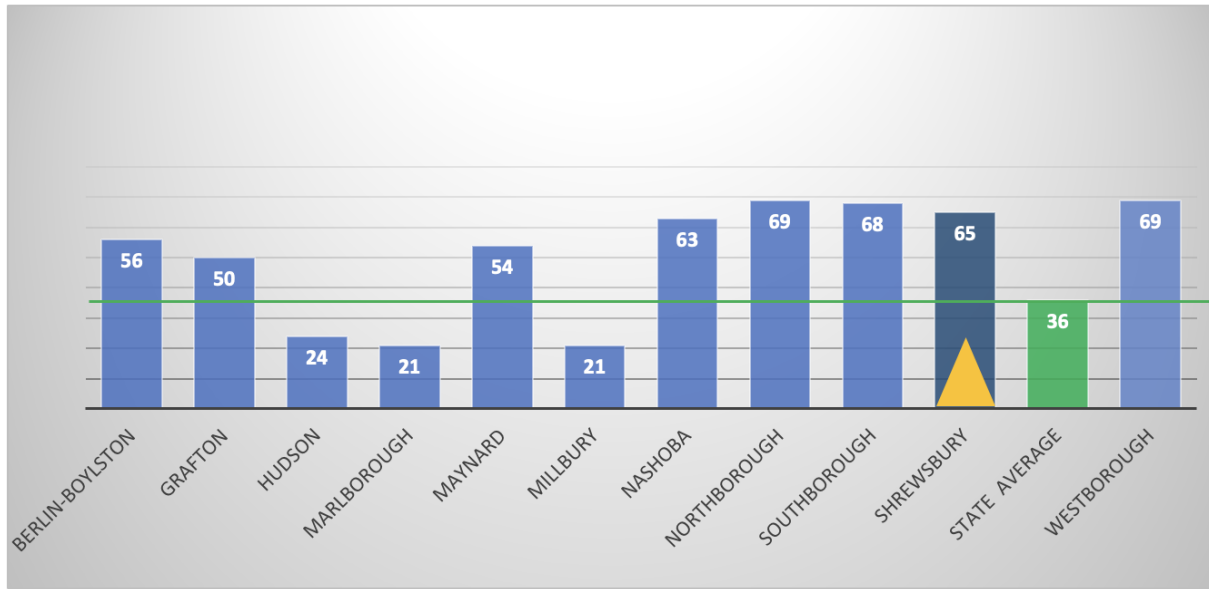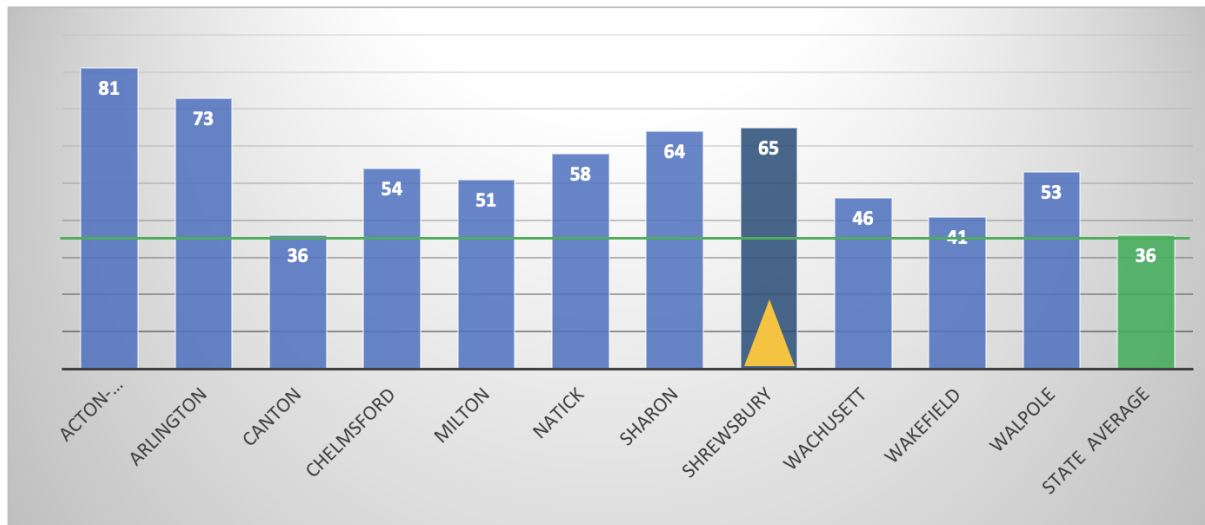
SPS Math Grade 8 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	17	1	16	49	34
EL and Former EL	37	7	30	50	13
Low Income	41	4	37	44	15
High Needs	34	4	30	47	20

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	59	17	42	25	17
Asian	89	45	44	9	2
Hispanic/Latinx	38	2	36	48	14
Multi-Race, Non-Hispanic/Latinx	55	14	41	31	14
White	56	9	47	37	7

Grade 10 Student Achievement Scores in Mathematics

In 2019, high school students across the state took the "next generation" test in Mathematics for the first time. Scores for the old "legacy" test cannot be compared with scores on this exam, so comparisons for this grade span are limited. Seventy-four percent (74%) of students in Grade 10 met or exceeded state benchmarks in 2022.

% by level	2019	2021	2022
Proficient (Exceeding + Meeting)	80	77	74
Exceeding	29	32	27
Meeting	51	45	47
Partially Meeting	17	19	22
Not Meeting	3	4	4

Percentage of Students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 10
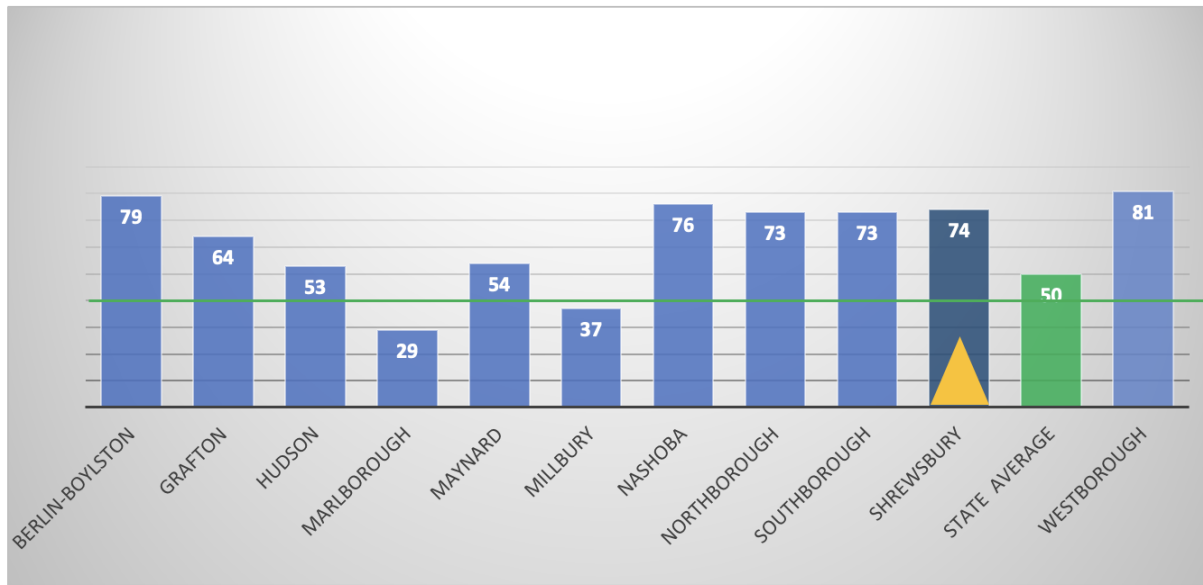Assabet Valley Collaborative District Comparisons

District	%
BERLIN-BOYLSTON	79
GRAFTON	64
HUDSON	53
MARLBOROUGH	29
MAYNARD	54
MILLBURY	37
NASHOBA	76
NORTHBOROUGH	73
SOUTHBOROUGH	73
SHREWSBURY	74
STATE AVERAGE	50
WESTBOROUGH	81

Percentage of students Meeting or Exceeding Expectations
Next-Gen MCAS Math / Grade 10
DART District Comparisons

District	%
ACTON-…	87
ARLINGTON	81
CANTON	59
CHELMSFORD	63
MILTON	73
NATICK	71
SHARON	75
SHREWSBURY	74
WACHUSETT	65
WAKEFIELD	64
WALPOLE	65
STATE AVERAGE	50
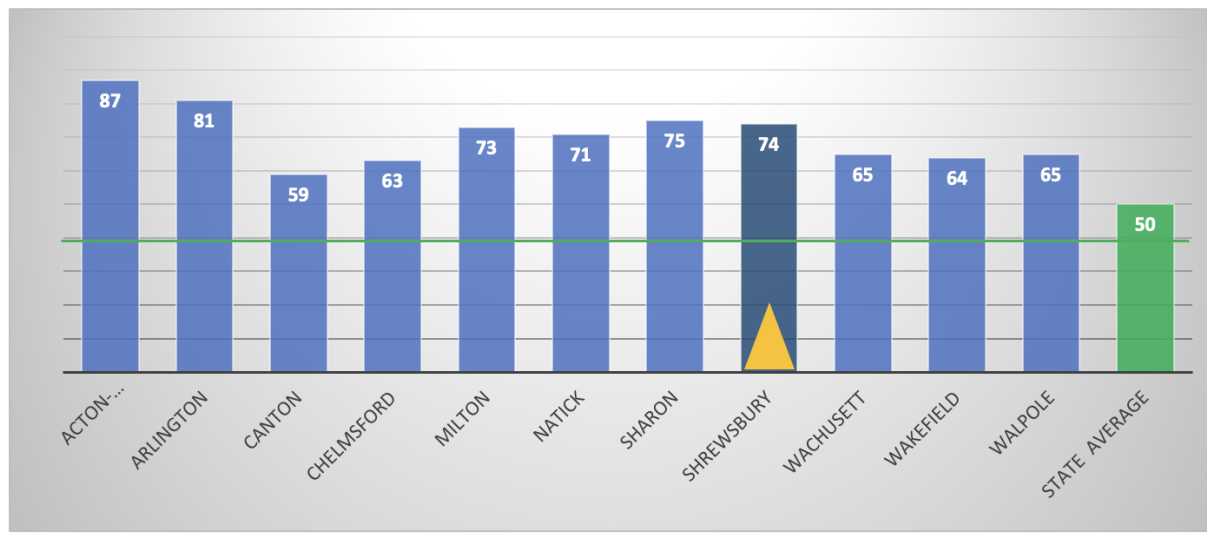
SPS Math Grade 10 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	15	0	15	57	28
EL and Former EL	35	22	13	52	13
Low Income	40	7	33	51	9
High Needs	36	8	28	50	15

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American/Black	60	15	45	30	10
Asian	91	55	36	8	1
Hispanic/Latinx	29	5	24	55	16
Multi-Race, Non-Hispanic/Latinx	83	18	65	18	0
White	72	16	56	24	3

Trends in Mathematics

Math scores rebounded at some grade levels this year, but we did not see gains across the board. In Shrewsbury and comparison districts, signs of recovery are best seen in the scores of our youngest students. These results suggest that the use of Math practice tools are good investments, and that a systemic approach to monitoring student progress is important.

Percentage of Students Meeting or Exceeding Expectations

Grade and Subject	Gr 3	Gr 4	Gr 5	Gr 6 .	Gr 7	Gr 8	Gr. 10
Shrewsbury % E / M 2019	75%	79%	73%	69%	63%	68%	80%
State Results 2019	49%	50%	48%	52%	48%	46%	59%
Shrewsbury % E / M 2021	62%	64%	54%	57%	59%	62%	77%
State Results 2021	33%	33%	33%	33%	35%	32%	52%
Shrewsbury % E / M 2022	68%	70%	50%	70%	56%	65%	74%
State Results 2022	41%	42%	36%	42%	38%	36%	49%

All students should have the opportunity and the support necessary to learn significant mathematics with depth and understanding. There is no conflict between equity and excellence.
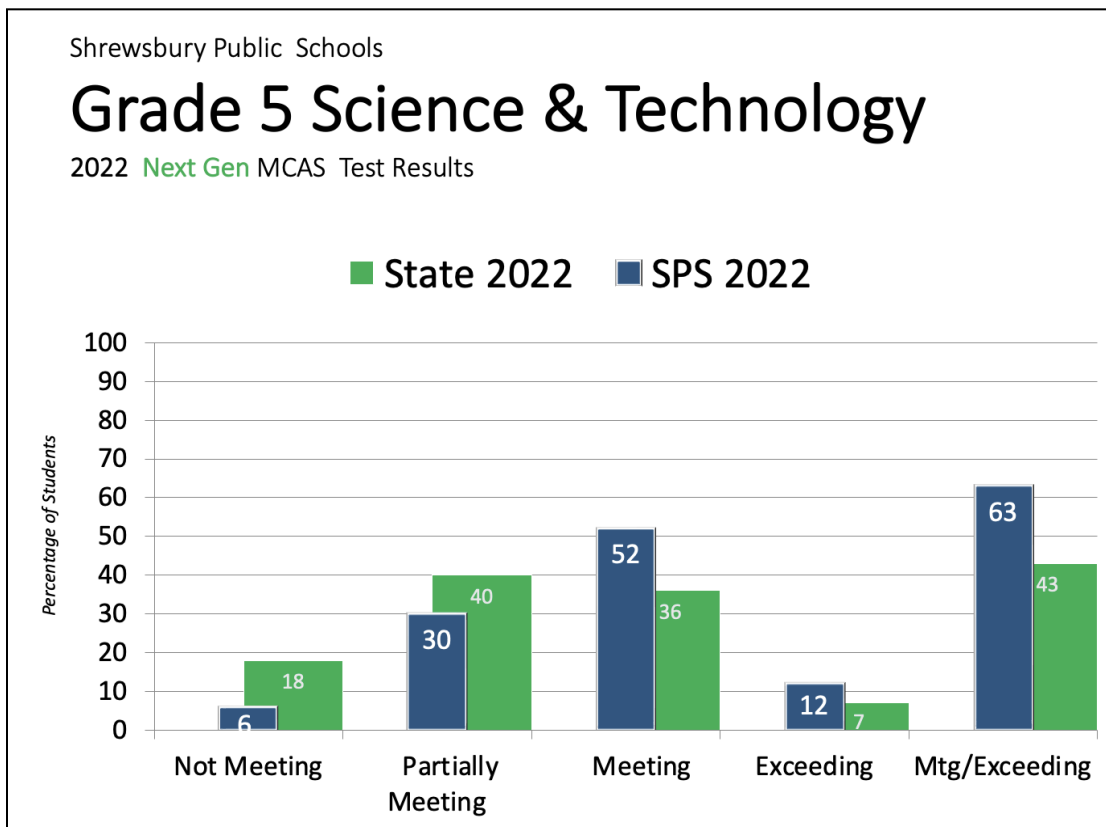
National Council of Teachers of Mathematics

Science & Technology Scores by Grade Level

Grade 5 Student Achievement Scores in Science

Students at this level took a new exam in 2019, thereby establishing a new baseline for the grade span. In 2022, 64% of students in Grade 5 met or exceeded state benchmarks in Science, an increase of 1% from 2019.

% by level	2019	2021	2022
Proficient (Exceeding + Meeting)	63	59	64
Exceeding	12	13	12
Meeting	51	46	52
Partially Meeting	31	34	30
Not Meeting	5	6	6

Shrewsbury Public Schools

Grade 5 Science & Technology

2022 Next Gen MCAS Test Results

■ State 2022   ⊞ SPS 2022

Here's how our Grade 5 results compared to nearby districts in 2022.

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 5

Assabet Valley Collaborative District Comparisons

District	Value
Berlin-Boylston	49
Grafton	53
Hudson	36
Marlborough	29
Maynard	41
Millbury	44
Nashoba	62
Northborough	59
Shrewsbury	63
Southborough	75
Westborough	65
State Average	43

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 5

DART District Comparisons

District	Value
Acton Boxborough	66
Arlington	69
Canton	61
Chelmsford	53
Milton	69
Natick	62
Sharon	73
Shrewsbury	63
Wachusett	58
Wakefield	53
Walpole	58
State Average	43

As mentioned in prior reports, the timing of curriculum units in Shrewsbury has an impact on student performance. For example, our Grade 5 students are tested cumulatively on content that is taught in earlier grades, especially fourth grade. Further, during remote learning, much of the Science content was adjusted for safety and in consideration of curriculum priorities, which means students may need additional time to build prerequisite knowledge in some Science subjects. It's likely that both factors continue to impact student achievement.

SPS Science Grade 5 Subgroup Achievement Scores

Accountability Subgroups		% Proficient by Category			
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	24	2	22	46	30
EL and Former EL	48	9	39	43	9
Low Income	36	3	33	47	17
High Needs	40	5	35	43	17

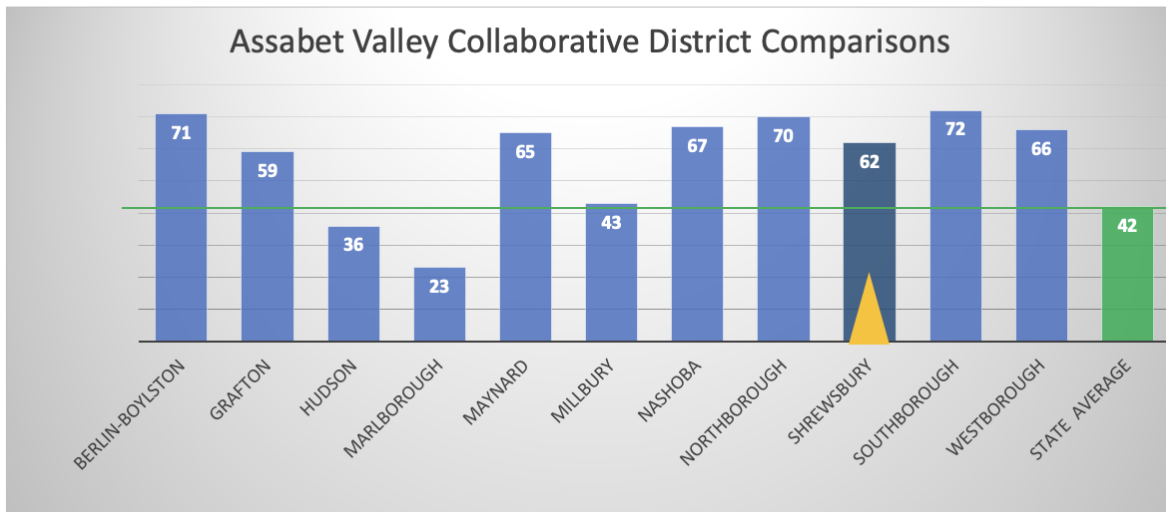| Race & Ethnicity Subgroups		% Proficient by Category			
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Asian	77	17	60	21	2
Hispanic / Latinx	41	6	35	45	14
Multi-Race, Non-Hispanic / Latinx	62	10	52	33	5
White	60	9	51	32	8

Grade 8 Student Achievement Scores in Science

In 2019, students in Grade 8 took the "next generation" Science test for the first time as well. In 2022, 62% of students scored in the "Meeting" range or better, a result that reflects a 1% increase over 2021. While it is appropriate to compare performance of eighth graders over time, with such limited information it's difficult to see trends at this point.

% by level	2019	2021	2022
Proficient (Exceeding + Meeting)	62	61	62
Exceeding	16	17	9
Meeting	46	44	53
Partially Meeting	33	33	31
Not Meeting	5	7	7

As shown below scores in Science for this grade band don't compare as favorably as scores in Grade 5.
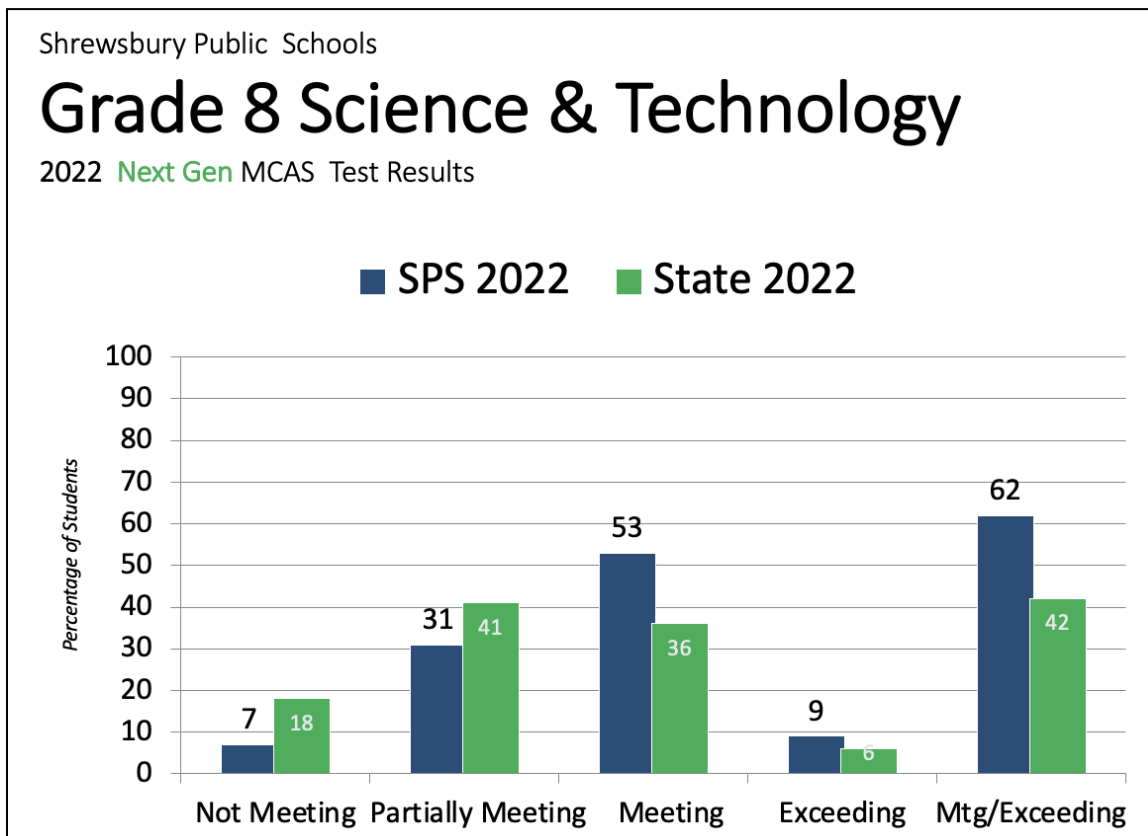
Shrewsbury Public Schools
Grade 8 Science & Technology
2022 Next Gen MCAS Test Results

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 8

Assabet Valley Collaborative District Comparisons

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 8

DART District Comparisons
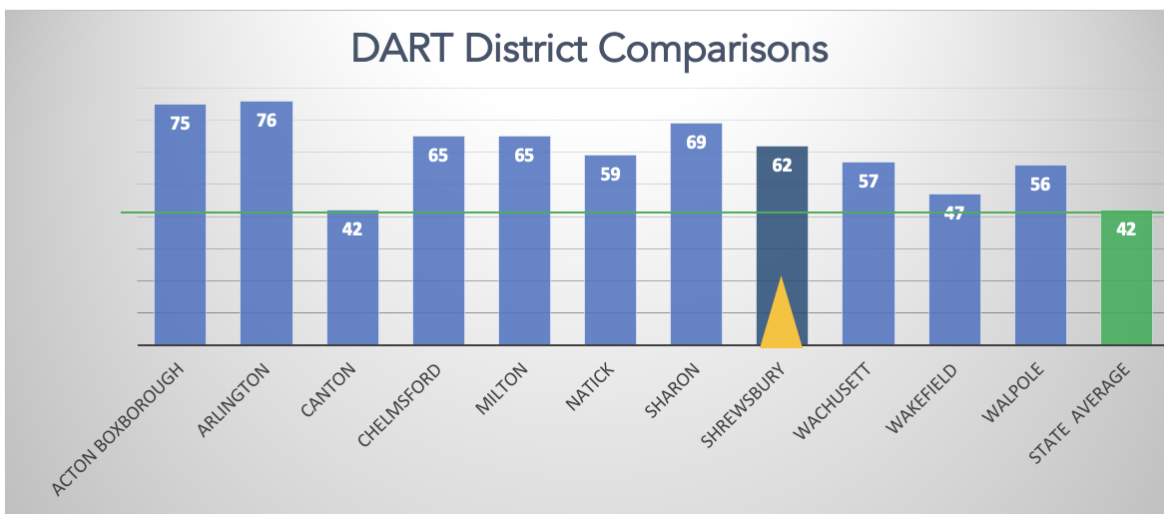
SPS Science Grade 8 Subgroup Achievement Scores

Accountability Subgroups		% Proficient by Category			
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	19	1	18	50	31
EL and Former EL	27	0	27	60	13
Low Income	42	4	38	43	15
High Needs	33	3	30	48	19

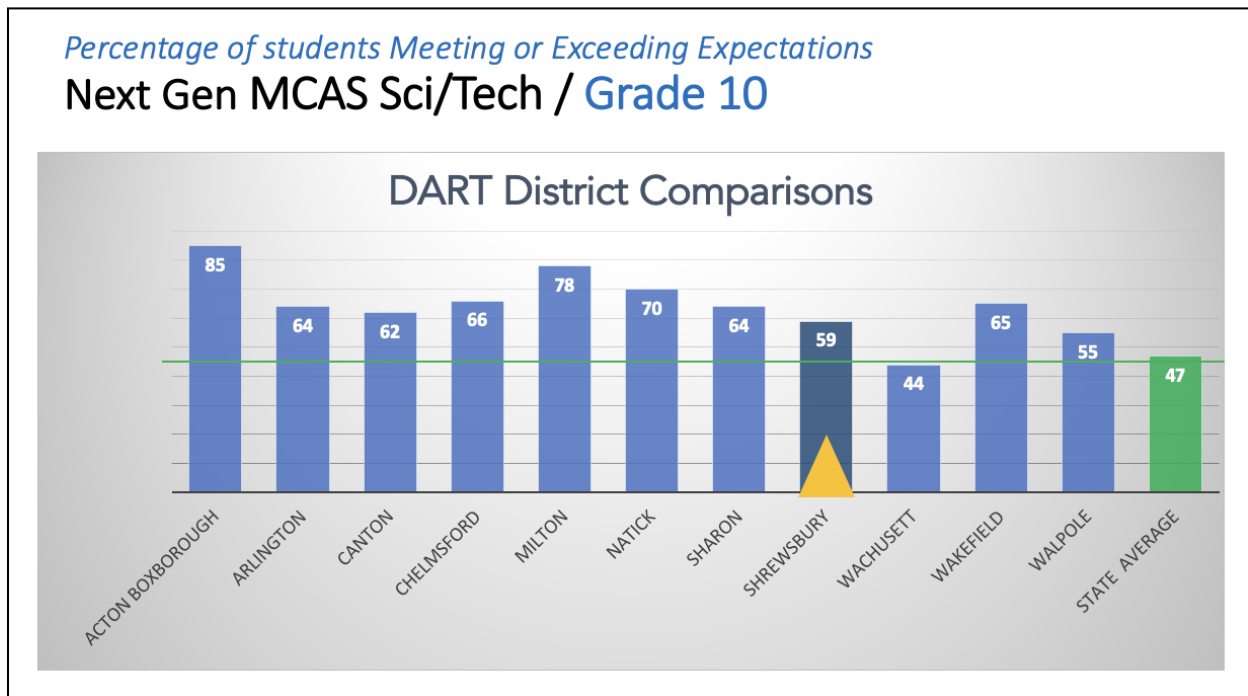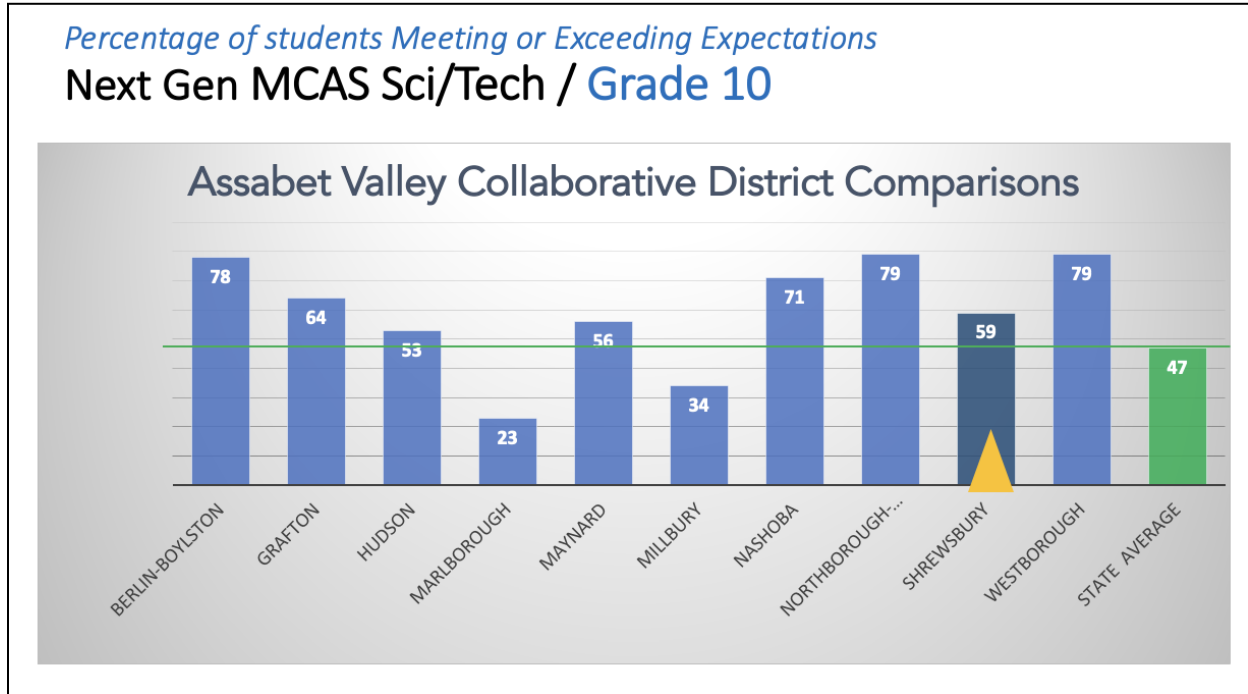| Race & Ethnicity Subgroups		% Proficient by Category			
	E / M	Exceeding	Meeting	Partially Meeting	Not Meeting
African American / Black	67	17	50	25	8
Asian	80	14	66	18	2
Hispanic / Latinx	34	5	29	50	17
Multi-Race, Non-Hispanic / Latinx	58	3	55	31	10
White	56	7	49	37	7

Grade 10 Science

2019 was the last year that students in this grade span took the older ("legacy") version of MCAS Science and Technology exam. As you know, the MCAS test was canceled in 2020. High school students were not required to take the Science exam in 2021. In 2022, 59% of Grade 10 students scored proficient or higher on the "next generation" version of the exam, completing the transition from the "legacy" version for all grade spans and subjects.

% by level	2021	2022
Proficient (Exceeding + Meeting)	NA	59
Exceeding	NA	18
Meeting	NA	41
Partially Meeting	NA	36
Not Meeting	NA	4

Shrewsbury Public Schools

Grade 10 Science & Technology

2022 Next Gen MCAS Test Results
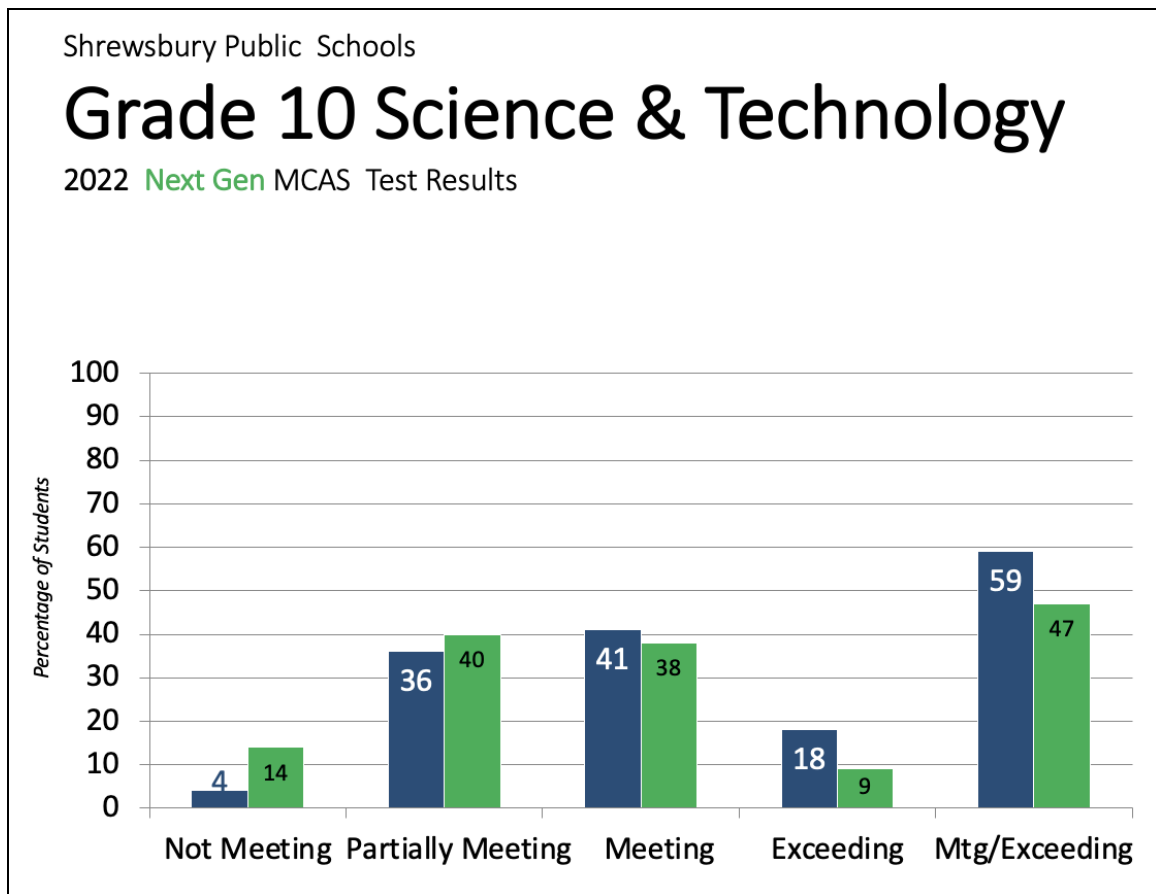
The chart below illustrates how comparison districts have transitioned to the latest version of the Science, Technology and Engineering (STE) exam.

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 10

Assabet Valley Collaborative District Comparisons

District	Percentage
BERLIN-BOYLSTON	78
GRAFTON	64
HUDSON	53
MARLBOROUGH	23
MAYNARD	56
MILLBURY	34
NASHOBA	71
NORTHBOROUGH...	79
SHREWSBURY	59
WESTBOROUGH	79
STATE AVERAGE	47

Percentage of students Meeting or Exceeding Expectations
Next Gen MCAS Sci/Tech / Grade 10

DART District Comparisons

District	Percentage
ACTON BOXBOROUGH	85
ARLINGTON	64
CANTON	62
CHELMSFORD	66
MILTON	78
NATICK	70
SHARON	64
SHREWSBURY	59
WACHUSETT	44
WAKEFIELD	65
WALPOLE	55
STATE AVERAGE	47

SPS Science Grade 10 Subgroup Achievement Scores

Accountability Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
Students w/ Disabilities	4	0	4	63	33
EL and Former EL	41	0	41	41	18
Low Income	25	3	22	62	13
High Needs	23	2	21	61	17

Race & Ethnicity Subgroups	E / M	% Proficient by Category			
		Exceeding	Meeting	Partially Meeting	Not Meeting
African American / Black	53	16	37	37	11
Asian	80	40	40	18	1
Hispanic / Latinx	22	3	19	63	16
Multi-Race, Non-Hispanic / Latinx	65	12	53	29	6
White	53	45	8	43	4

Trends in Science

Science achievement scores for Grades 5 and 8 show signs of recovery for most students. Scores for students in Grade 10 remain well below pre-pandemic achievement scores.

Percentage of Students Meeting or Exceeding Expectations

Grade and Subject	Shrewsbury % Level M/E 2019	State Results 2019	Shrewsbury % Level M/E 2021	State Results 2021	Shrewsbury % Level M/E 2022	State Results 2022
Gr 5	63	49	60	42	63	43
Gr 8	62	46	*60*	41	62	42
Gr 10	88	74	*N/A**	N/A	59	47

Note: Grade 10 results for spring 2021 STE are not provided because students in the class of 2023 were not required to take the STE test. Information about CD requirements is available at https://www.doe.mass.edu/mcas/graduation.html.

II. Student Growth Percentile Scores (SGPs)

Assessment levels indicate how each student is achieving, relative to the state standards for that grade level and content area. Growth scores represent change in an individual student's MCAS performance from one exam to the next. By utilizing a growth measure, the state is attempting to answer the question, "How much academic progress did a student or group of students make in one year, as measured by MCAS?"

Massachusetts measures growth for individual students by comparing the change in their achievement on statewide assessments to that of their "academic peers" (all other students in the state who previously had similar historical assessment results). The comparison is expressed as a percentile, and represents how many students showed greater or lesser improvement on this year's test as compared to the performance of the cohort of students with the same achievement score history.

Student Growth Percentiles (SGP)

✓ Massachusetts measures growth by comparing the change in a student's achievement scores on statewide assessments with all other students with similar test score histories.

✓ The rate of change is expressed as a percentile.
- *How much did Rishi improve in mathematics from 4th and 5th grade to 6th grade, relative to her academic peers?*
- *If Rishi improved more than 65 percent of her academic peers, then her Student Growth Percentile (SGP) would be 65.*

The state defines *moderate* (or expected) growth to be between the 40-60th percentile, with *low* growth below the 40th percentile and *high growth* above the 60th percentile. In reviewing an individual student's result, teachers and parents might wonder, "*How much did Rishi improve her math score on MCAS in 6th grade, relative to students who had the same math scores on the 4th and 5th grade math tests?*" SGP scores help to answer that question: if Rishi had a higher score than 65 percent of her academic peers with the same score history, then her Student Growth Percentile (SGP) would be 65.

The growth model method operates independently of MCAS performance levels. As a result, all students may demonstrate growth. Growth percentiles are typically calculated in ELA and Mathematics for students in Grades 4 through 8 and 10, because the model requires at least two years of MCAS results to calculate growth percentiles. Therefore, no growth scores are available for Grade 3. This year The Department of Elementary and Secondary Education emphasized that districts should return to a pre-pandemic approach to calibrating student growth percentiles . For this reason SGP results for 2022 are best compared with statistics from 2019. Finally, because the Science and Technology test is only administered in grades five, eight, and nine/ten, there is no growth data produced for this test.

Analyzing student test scores over time provides us with additional information; this data helps us

monitor individual students and subgroups within the district. Importantly, it may also help us identify "bright spots," instructional models, or grade level practices that yield exceptional outcomes for students.

Aggregate Growth Percentiles

While student growth percentiles enable educators to chart the growth of an individual student compared to that of academic peers, student growth percentiles may also be aggregated to understand growth at the subgroup, school, or district level.

Initially the Department of Elementary and Secondary Education reported growth as a median percentile (the middle score if one ranks the individual student growth percentiles from highest to lowest). A typical school or district in the Commonwealth would have a median student growth percentile of 50. Beginning in 2018, the DESE moved to a growth model where the average student growth percentile replaces median SGP for school and district aggregations. Although there are areas to target for improvement that will take more time to achieve, given the scope of the impact of the pandemic our collective goal should be to accelerate student growth.

Why measure growth?

- A way to measure progress for students at all performance levels
  - A student can achieve at a low level but still improve relative to his academic peers
  - Another could achieve well but not improve much from year to year

- Provides evidence of improvement even among those with low achievement

- Gives high achieving students and schools something to strive for beyond proficiency

Massachusetts Department of
ELEMENTARY & SECONDARY
EDUCATION

Shrewsbury Public Schools Average SGP by Grade Span

Results for the English Language Arts Assessment 2017-2022

Again, growth percentile scores are expected to fall within the 40-60 range. In 2022, students in all grade spans met or surpassed the state's benchmark for "moderate growth".

Given the modification of the MCAS test in 2021, student growth scores for 2022 are best compared with scores in 2019.

ELA	2017	2018	2019	2021	2022
Gr 4	58	58	56	N/A	54
Gr 5	49	52	47	30	52
Gr 6	51	53	52	39	53
Gr 7	39	55	43	34	47
Gr 8	52	54	55	38	62
Gr 10	48	58	56	52	55

Shrewsbury Public Schools Average SGP by Grade:
Results for the Mathematics Assessment 2017-2022

Here again we see lower growth than is typical. Overall these statistics represent "low" growth overall, and "moderate" growth for Grade 8. Note the higher rates of growth for students in Grade 10.

Math	*2017*	*2018*	*2019*	*2021*	*2022*
Gr 4	58	58	64	N/A	58
Gr 5	47	48	51	34	37
Gr 6	44	45	42	28	61
Gr 7	40	52	43	37	42
Gr 8	54	61	61	40	57
Gr 10	57	59	63	53	68

V. District Subgroup Performance Trends

As mentioned previously, comparing subgroup results to aggregate data helps educators to identify and close achievement opportunity gaps. In conducting this review it's important to keep in mind that students may belong to multiple subgroups and therefore are counted more than once in terms of total numbers. Finally, it should be mentioned that the data we have relies on how families self-report when they register.

The table below was prepared with support from Focused Schools, a consultant group currently assisting the district with strategic planning. It serves as a helpful summary of "the big picture" because it shows how Shrewsbury's results for most students compare to students with disabilities, students that are considered low income and students that are English learners. Why focus on these specific subgroups? Briefly, while we are resolved to monitor progress for all student subgroups, we see persistent gaps between achievement scores for students in these subgroups and aggregate scores across grade spans and administration years. Moreover, for some subgroups we see lower

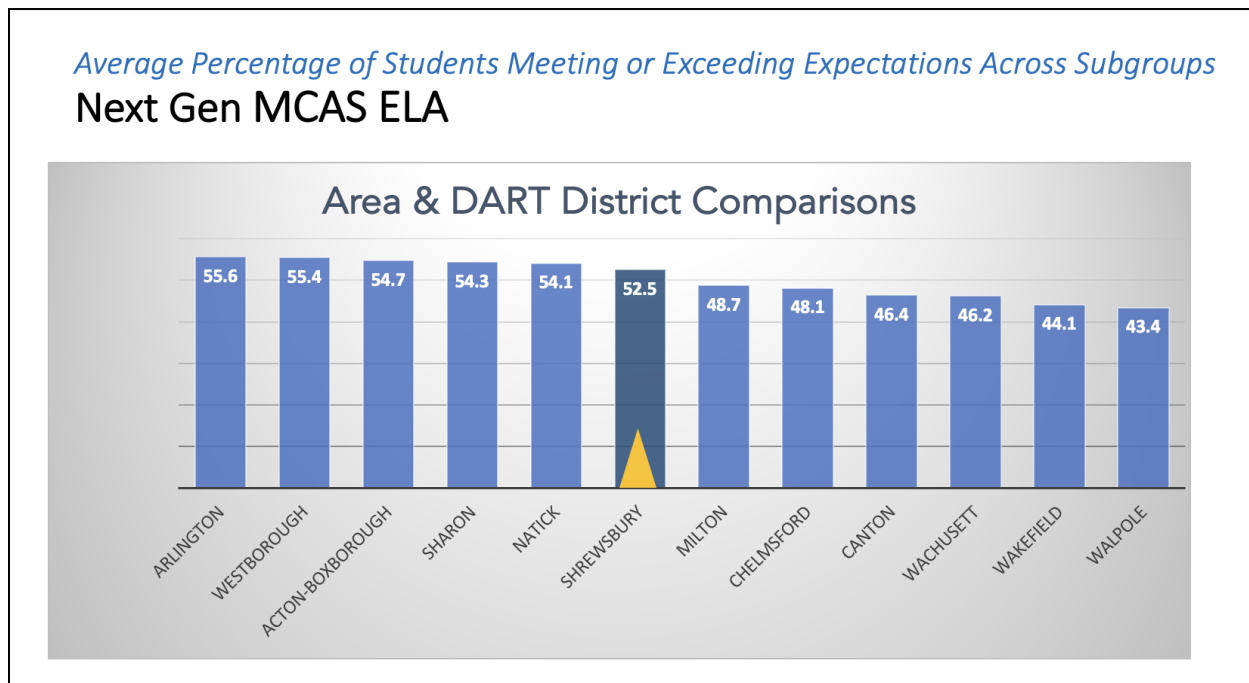rates of growth which are shaded in red in the chart below.

Grade Level & Subject	SPS All Students		SPS Students with Disabilities		SPS Low Income		SPS English Learners and Former English Learners	
	% E/M	SGP	% E/M	SGP	% E/M	SGP	% E/M	SGP
Gr 3 ELA	64	N/A	25	NA	33	NA	45	NA
Gr 3 Math	68	N/A	23	NA	35	NA	62	NA
Gr 4 ELA	60	54	16	41	33	49	41	46
Gr 4 Math	70	58	25	46	44	53	53	53
Gr 5 ELA	60	52	19	37	31	45	50	55
Gr 5 Math	49	37	16	27	17	31	39	37
Gr 5 Sci	63	N/A	24	NA	36	NA	48	NA
Gr 6 ELA	60	53	13	44	34	51	34	56
Gr 6 Math	70	61	17	41	37	56	40	62
Gr 7 ELA	59	47	7	36	32	50	28	48
Gr 7 Math	57	42	14	40	28	40	32	45
Gr 8 ELA	66	62	14	43	47	56	27	59
Gr 8 Math	65	57	17	47	41	47	37	56
Gr 8 Sci	62	N/A	19	NA	42	NA	27	NA
Gr 10 ELA	77	55	22	51	54	56	26	**
Gr 10 Math	74	68	15	59	40	65	35	**
Gr 10 STE	59	N/A	4	NA	25	NA	41	NA

*Red cells denote growth rates below 50, the expected / moderate range per DESE guidelines.

Internally, Geoffrey Thayer, a district Data Specialist, conducted a more detailed analysis for all subgroups with the goal of identifying how student results in Shrewsbury compare with those of other districts. His findings show that Shrewsbury is on par with neighboring districts with regards to closing educational opportunity gaps. For example, students that identify as African American/Black in Shrewsbury generally perform better than students in the same subgroup in other districts. However, in some cases the performance of subgroups only compares well because results went down in the aggregate, so it's important to look at trends over time.
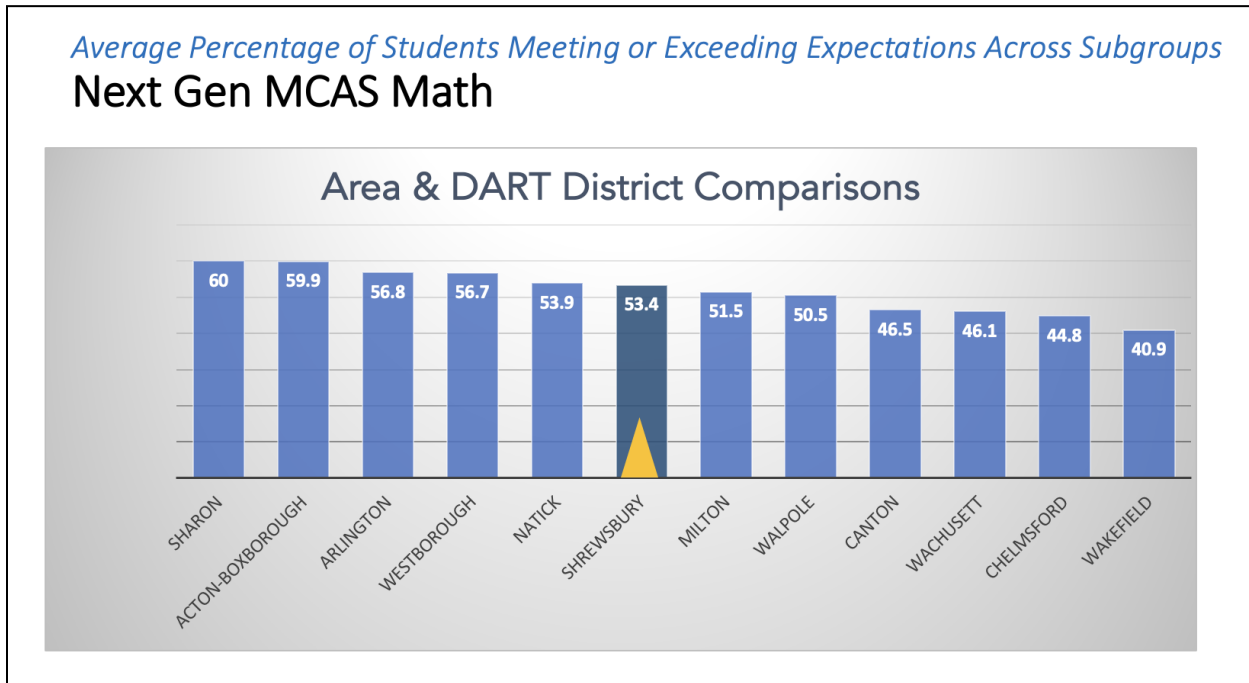
Looking across a comparison with DART districts, we can also see opportunities to improve our outcomes by learning from districts with similar enrollments. Scores for English Learners in Shrewsbury drop from Grade 3 to Grade 10, with fewer students receiving passing grades on the MCAS in the upper grades. There are some districts that do not experience this, including Acton-Boxborough and Westborough.

In 2022, 16% of Students with Disabilities in Shrewsbury (a portion of our "High Needs" group) met or exceeded expectations for the Grade 4 MCAS test in ELA, as compared to 33% of students in the "High Needs"subgroup and 60% of Grade 4 students overall. In contrast, 26% of Grade 4 Students with Disabilities in Westborough met the state benchmark in English Language Arts in 2022. The comparison data is illustrated in the charts below.

Average Percentage of Students Meeting or Exceeding Expectations Across Subgroups
Next Gen MCAS ELA

Area & DART District Comparisons

District	Score
ARLINGTON	55.6
WESTBOROUGH	55.4
ACTON-BOXBOROUGH	54.7
SHARON	54.3
NATICK	54.1
SHREWSBURY	52.5
MILTON	48.7
CHELMSFORD	48.1
CANTON	46.4
WACHUSETT	46.2
WAKEFIELD	44.1
WALPOLE	43.4

As mentioned previously, English Language Arts achievement scores were lower in 2022 than scores in Math. Additionally, scores for students in most groups were lower than the average score for the grade span. Here we see Shrewsbury as compared to districts with similar demographics. Many districts in the Assabet Valley Collaborative did not have subgroup achievement scores strong

enough to be included among the top 12 in either English Language Arts or Math.

Average Percentage of Students Meeting or Exceeding Expectations Across Subgroups
Next Gen MCAS Math

Area & DART District Comparisons

District	Value
SHARON	60
ACTON-BOXBOROUGH	59.9
ARLINGTON	56.8
WESTBOROUGH	56.7
NATICK	53.9
SHREWSBURY	53.4
MILTON	51.5
WALPOLE	50.5
CANTON	46.5
WACHUSETT	46.1
CHELMSFORD	44.8
WAKEFIELD	40.9

Student data is useful only to the extent that it helps educators reflect on our practice. With the purchase of the Star screener tools we are better able to triangulate assessment information. Most importantly we are able to monitor students in Grades K-8 between MCAS administrations.

Staff look closely at the achievement gap between student subgroups as compared to the "All Students" group in various ways. As children address the content standards, students that struggle to achieve proficiency may still demonstrate high growth. For example, the growth percentiles for students with "High Needs" in English Language Arts is similar to those for most Grade 4 students. This suggests that students in both groups are growing at a similar rate.

Significantly, if students within our subgroups don't exceed typical growth, achievement gaps between students with disabilities and typical students will widen over time. When we consider the performance of students in subgroups, there is a wide range of performance scores. It's important to look at both achievement, which signals content mastery and growth. In Shrewsbury the rate of achievement among students in this group has increased gradually over time. Higher rates of growth will be needed to close achievement opportunity gaps, however.

VI. Data-Informed Decision Making

Staff analyze MCAS data from the DESE portal to review student performance, identify strengths and weaknesses in specific standards, and also to examine released questions to determine how instructional planning might shift. The DESE district profile portal allows anyone to access data about standards, question types, and even to compare item scores across districts. Click here to see how it works.

Scrutinizing student results by question helps educators to align their practice with the expectations inherent in the assessment. Educators look at student work related to questions like the one depicted above/right to see which concepts they should revisit in class. Looking at the results in this way allows teacher teams to refine instructional plans together.

This question has four parts.

These circle graphs represent the number of sixth-grade and seventh-grade students on academic teams at two middle schools.

South Middle School Students on Academic Teams

seventh-grade students 64%

sixth-grade students

Total Students: 75

Jefferson Middle School Students on Academic Teams

seventh-grade students 55%

sixth-grade students 45%

Total Students: 80

Part A

Based on the data in the circle graph for South Middle School, what percent of students on academic teams are sixth-grade students? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

VII. Next Steps

Using Data to Adjust Instruction

The achievement our students experience is the result of a number of systems working together. In a typical year, partnerships between home and school, coupled with an engaging and rigorous curriculum, help students to meet rising expectations over time. Yet the past three years have been anything but typical. While data helped educators at all levels to make decisions, MCAS results took a back seat to managing absenteeism and addressing student behavioral and mental-health needs. Our educators continue to work hard to meet a variety of student needs. Increasingly, we are using data to focus specifically on academic goals.

Monitoring Student Progress

The adoption of a universal screening tool for students in Grades K-8 has made it easier to monitor student progress in both English Language Arts and Mathematics in real time. Moreover, in addition to common assessment opportunities, the Star platform provides reports that empower educators to make decisions informed by recent assessment results. For example, classroom teachers can see which skills are most important for mastery, and adjust instruction accordingly. Forecasting reports enable district leaders and teacher teams alike to see which students are at the highest risk for not meeting state benchmarks. In this way we can identify individual students in need of extra support early and intervene accordingly.
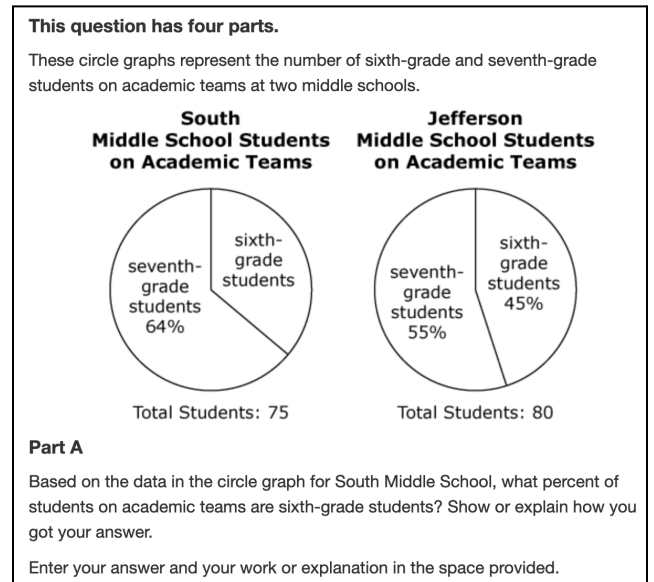
For the second year in a row we noted that actual MCAS scores were within 5-10% of the scores predicted by the Star assessment. As depicted in the charts below, overall projections from last year aligned well with 2022 achievement results in each subject for most grade spans.

Grade	% Predicted to be Proficient in 2022 in Reading	Actual % Met / Exceeding in 2022 in ELA	% Difference
3	65	64	1
4	65	60	5
5	63	60	3
6	56	60	4
7	64	59	5
8	56	66	10

Grade	% Predicted to be Proficient in 2022 in Math	Actual % Met / Exceeding in 2022 in Math	% Difference
3	66	68	2
4	66	70	4
5	68*	50	18
6	36*	70	34
7	49	57	8
8	56*	66	56

*_Please note:_ Growth is calculated based on assessments given within the screening window. Students tested before or after that time are not included in growth statistics. Last year we adjusted test administration for some grade spans in the second trimester due to high rates of absenteeism, and results for some grades were affected.

Results from the first Star assessment given in late September of 2022 enabled us to address student needs in advance of this year's MCAS administration window. Looking at student data compels us to action. With assessment information in hand we can anticipate and respond to students in need sooner than we used to – and we should.

Triangulating Student Data

The next administration of the Star assessment is scheduled to conclude on December 16, 2022. In the interim, students that scored below benchmark in September are being monitored individually. At all levels, educators are using the information they gain from common assessments to adjust instruction and to provide tiered support.

The table below reflects growth rates for current students between Star test administration windows this year. This assessment is nationally normed, so students are compared to their academic peers nationwide.

Fall to Winter Student Growth Percentiles: Star Assessment Data

Grades	Star Early Literacy	Star Reading	Star Math
Kindergarten	62	91	N/A
Grade 1	48	61	68
Grade 2	53	60	65
Grade 3	64	61	63
Grade 4	N/A	51	71
Grade 5	N/A	50	45
Grade 6	N/A	47	59
Grade 7	N/A	44	47
Grade 8	N/A	51	64

VIII. Conclusion

While there is still a lot of work to do, the district's commitment to using universal screening software means we need not wait to know how our students are faring. We have within our assessment tools the means to measure individual student growth and the performance of accountability subgroups in between MCAS administration. Responding effectively to data is the key to realizing the aspirations manifested within the Education Reform Act. With the pandemic behind us, I'm confident our educators will continue to see assessment data as a call to close opportunity gaps, and related tools as resources to ensure that we empower all our children.