



**School Committee
Meeting Book**

**December 6, 2017
7:00 pm**

**Town Hall - 100 Maple Avenue
Selectmen's Meeting Room**



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

AGENDA

**December 6, 2017 7:00pm
Town Hall—Selectmen's Meeting Room
100 Maple Avenue**

Items

Suggested time allotments

I. Public Participation	7:00-7:10
II. Chairperson's Report & Members' Reports	
III. Superintendent's Report	
IV. Time Scheduled Appointments:	
A. Profile of a Graduate: Revised Draft for Review & Discussion	7:10 – 7:30
B. Five-Year Strategic Priorities & Goals: Draft for Review & Discussion	7:30 – 8:00
V. Curriculum	
A. SHS Testing Results: Annual Report	8:00 – 8:20
B. State Testing: Annual Report	8:20 – 8:45
VI. Policy	
VII. Finance & Operations	
VIII. Old Business	
IX. New Business	
X. Approval of Minutes	8:45 – 8:50
XI. Executive Session	
XII. Adjournment	8:50

Next regular meeting: December 20, 2017



SHREWSBURY PUBLIC SCHOOLS SCHOOL COMMITTEE MEETING

ITEM NO: I Public Participation

MEETING DATE: 12/6/17

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear thoughts and ideas from the public regarding the operations and the programs of the school system?

BACKGROUND INFORMATION:

Copies of the policy and procedure for Public Participation are available to the public at each School Committee meeting.

ITEM NO: II. Chairperson's Report/Members' Reports

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear a report from the Chairperson of the School Committee and other members of the School Committee who may wish to comment on school affairs?

BACKGROUND INFORMATION:

This agenda item provides an opportunity for the Chairperson and members of the Shrewsbury School Committee to comment on school affairs that are of interest to the community.

STAFF AVAILABLE FOR PRESENTATION:

School Committee Members
Dr. B. Dale Magee, Chairperson
Mr. Jon Wensky, Vice Chairperson
Ms. Sandra Fryc, Secretary
Ms. Erin Canzano, Committee Member
Mr. Jason Palitsch, Committee Member

ITEM NO: III. Superintendent's Report

SPECIFIC STATEMENT OR QUESTION:

Will the School Committee hear a report from Dr. Joseph M. Sawyer, Superintendent of Schools?

BACKGROUND INFORMATION:

This agenda item allows the Superintendent of the Shrewsbury Public Schools to comment informally on the programs and activities of the school system.

STAFF AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools

ACTION RECOMMENDED FOR ITEMS I, II, & III:

That the School Committee accept the report and take such action as it deems in the best interest of the school system.



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: IV. Time Scheduled Appointments: MEETING DATE: 12/6/17
A. Profile of a Graduate: Revised Draft for Review & Discussion

BACKGROUND INFORMATION:

In support of work on the district's next set of Five-Year Strategic Priorities and goals, a team of 23 educators and community members met last spring to create a working draft of Shrewsbury's Portrait of a Graduate. Portrait of a Graduate defines what we believe is most critical for our students to know and be able to do by the time they graduate from Shrewsbury High School.

Over the past several months, input from stakeholders has been solicited through public forums, an online survey process called ThoughtExchange, and by School Committee members visiting school PTO meetings and conversing with parents, staff, and principals there. Based on this feedback there was a high degree of agreement with the content, so very few changes are recommended, with some minor adjustments being made to capture ideas from stakeholder input.

The updated draft will be provided under separate cover.

ACTION RECOMMENDED:

That the School Committee review and discuss the updated draft to provide feedback.

STAFF AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools



SHREWSBURY PUBLIC SCHOOLS SCHOOL COMMITTEE MEETING

ITEM NO: **IV. Time Scheduled Appointments:** MEETING DATE: **12/6/17**
B. Five-Year Strategic Priorities & Goals: Draft for Review & Discussion

BACKGROUND INFORMATION:

In the spring of 2011, the Shrewsbury School Committee asked the administrative team to lead an effort to set strategic priorities and goals for the district for 2012-2016. The district has recently completed its five-year commitment to that set of four strategic priorities, assessed its successes and needs, and has been working to develop a new set of priorities and goals through 2022.

Feedback from SPS students, parents, community members, and staff members regarding ongoing and new priorities was solicited this fall via a school council forum, a public forum, and an online ThoughtExchange survey, and that feedback was used to inform the Five-Year Strategic Priorities & Goals draft presented tonight. At the previous meeting, a detailed report on three key topics that had emerged from feedback (social and emotional learning, inclusion, and 21st century skills) was presented as background information. Additionally, various leadership teams within the district vetted earlier drafts and provided suggestions that were incorporated into this draft.

ACTION RECOMMENDED:

That the School Committee review and discuss the updated draft to provide feedback, in advance of sending it out for public comment with the intention of the School Committee voting to approve the new priorities and goals on December 20.

STAFF AVAILABLE FOR PRESENTATION:

Dr. Joseph M. Sawyer, Superintendent of Schools



Shrewsbury Public Schools

Joseph M. Sawyer, Ed.D.
Superintendent

December 6, 2017

To: School Committee
From: Joe Sawyer
Re: Draft of Proposed Strategic Priorities & Goals 2018-2022

Enclosed with this memorandum, please find a draft of proposed strategic priorities and goals for the next five-year period.

This proposal attempts to distill a large volume of feedback from students, parents, community members, and staff, along with the professional recommendations of our leadership team, into a set of mutually reinforcing strategies and goals that represent how our school district can best focus its collective resources and efforts to achieve its mission and vision while upholding its values.

The work in recent years of both the district's Innovation in Learning Study Group and its Profile of a Graduate Working Group greatly informed the content of this proposal.

The strategic priorities are intended to be simple statements that define compelling topics that apply to the entire district. The 2022 goals represent broad, concrete actions that the district will take to improve our schools' ability to serve students and the community within those priorities. Please see the accompanying definition and checklist document for more details.

If and when these meet with your approval, a set of district goals will be developed to articulate actions and measurable outcomes to be achieved by the end of the 2019-2020 school year to advance these broader priorities and goals; similarly, school councils will develop new improvement plans that specify how each school will advance this work.

I will present additional background information regarding this proposal when presenting it to you at the December 6 meeting. I look forward to your questions and feedback.



Shrewsbury Public Schools

Strategic Priorities: Definition & Checklist

In their book Strategy in Action: How School Systems Can Support Powerful Teaching and Learning, Rachel Curtis and Elizabeth City advocate that districts create an overall strategy that is focused on the “instructional core” triad of students, educators, and content by determining no more than five strategic priorities. They utilize Stacey Childress’s definition of strategy:

“Strategy” is the set of actions an organization chooses to pursue in order to achieve its objectives. These deliberate actions are puzzle pieces that fit together to create a clear picture of how the people, activities, and resources of an organization can work effectively to accomplish a collective purpose. (p. 3)

For our purposes, please consider our district’s “objectives” to be what is set out in the *Profile of a Graduate*. The task is to ultimately determine no more than four strategic priorities that represent how the district will focus its efforts towards achieving those objectives, which will in turn help the district meet the “collective purpose” articulated by our mission and core values. A strong strategic priority must be:

- ☐ Broad enough to apply across the entire district, PreK-12
- ☐ High leverage, so that if executed well it will ultimately have a significant impact on student learning
- ☐ Motivating, so that it promotes innovation and problem solving that move the district closer to fulfilling its aspirations
- ☐ Aligned with the other strategic priorities so that together they are coherent and mutually reinforcing



Shrewsbury Public Schools

Strategic Priorities & Goals DRAFT for School Committee Review & Discussion December 6, 2017

Strategic Priority:

Space and resources to support effective learning

2022 strategic goals:

- Address stressed enrollment capacity by increasing physical space and making programmatic adaptations:
 - Assess Preschool through Grade 12 facility needs, including completion of a space and enrollment capacity study to facilitate planning
 - Partner with the community to build a new Beal School to address Kindergarten through Grade Four space needs and to provide access to a full-day program with no tuition to all kindergarten students
 - Relieve overcrowded conditions wherever necessary by providing additional space and/or revising use of existing space, especially at Shrewsbury High School
 - Secure the necessary resources for a high quality educational program:
 - Address growing enrollment with adequate staffing to maintain appropriate class sizes according to School Committee guidelines
 - Ensure that students have access to personnel, technology, and instructional materials to achieve expected levels of learning
 - Provide effective professional learning opportunities for staff to build teaching and leadership capacity
-

Strategic Priority:

Learning environments where everyone's success matters

2022 strategic goals:

- Create a common understanding of the benefits of inclusive schools and develop a shared, systematic approach to ensure that everyone has equitable access and opportunity for successful learning
 - Ensure that all staff actively participate in professional development focused on inclusive and culturally proficient practices that improve learning and school cultures
 - Analyze data related to academic performance and other indicators of success to identify existing gaps among populations; determine and implement action steps for improvement; and demonstrate success at closing these gaps
-
-

Strategic Priority:

Enhanced well-being of all

2022 Strategic Goals:

- Create a common understanding of the benefits of the skills, habits, and mindsets of social and emotional learning and develop a shared, systematic approach to explicitly teach, integrate, and assess these competencies
 - Ensure that all staff actively participate in professional development focused on the skills, habits, and mindsets of social and emotional learning that improve students' learning, resilience, and focus
 - Investigate, recommend, and plan for potential changes to school start times to better align with adolescent health needs for adequate sleep
 - Improve support systems and resources to enhance the well-being of students and staff
-

Strategic Priority:

Connected learning for a complex world

2022 Strategic Goals:

- Integrate project-based learning experiences that require students at all grade levels to create complex, high-quality work for an authentic audience, with an emphasis on critical thinking, communication, creativity, and collaboration
- Review and adapt curriculum and instructional approaches to help students gain the knowledge and skills necessary to become ethical, empathetic, informed, and financially self-sufficient citizens who make thoughtful decisions and contribute positively to their community
- Review and adapt feedback and homework systems in order to implement effective, research-based practices that enhance learning and build stronger partnerships with students and families
- Build community partnerships with businesses, institutions, and individuals in order to increase access to experiential learning and career awareness and to enhance learning in the STEAM fields (science, technology, engineering, the arts, and mathematics)



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **V. Curriculum**
A. SHS Testing Results: Annual Report

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

Each year, a report is presented that includes student performance data on the SAT, SAT II, Advanced Placement tests, etc.

Mr. Bazydlo and Ms. Nga Huynh will summarize the report and be available to answer questions.

ACTION RECOMMENDED:

That the School Committee accept the report and take whatever steps it deems necessary in the interests of the Shrewsbury Public Schools.

STAFF AVAILABLE FOR PRESENTATION:

Mr. Todd Bazydlo, Principal, Shrewsbury High School

Ms. Nga Huynh, Director of School Counseling, Shrewsbury High School

Shrewsbury High School Testing Report

Class of 2017



**Presented to the School Committee
December 6, 2017**

**Todd Bazydlo, Principal
Nga Huynh, Director of School Counseling**

Shrewsbury High School Testing Report Class of 2017

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Summary Statements

Redesigned SAT:

- Page 6 **Average Scores—1600 scale (Figures 1)**
- The redesigned SAT is reported for the first time this year. The score is based on two section scores: Evidence Based Reading & Writing and Math with a score range from 200-800. As a result of the redesigned SAT, scores are not directly comparable to the old SAT.
 - Based on the 1600 scale, Shrewsbury's SAT scores remain well above the state and national averages of 1103 and 1070, respectively.
- Page 6-7 **SAT: Individual Critical Reading, and Math scores**
- On each individual section, Shrewsbury's scores are:
 - Evidenced Based Reading & Writing score is 588. **(Figure 2)**
 - Math score is 608. **(Figure 3)**
- Page 8 **SAT: Critical Reading, Math scores by Gender (Figure 4)**
- In the Evidence Based Reading & Writing and Math scores, Shrewsbury females and males scored higher than the state and national trends.
 - Shrewsbury females and males scored the same on the Evidence Based Reading & Writing section of the SAT similar to the state (F/M – 553/554) and national (F/M – 539/537) trends. Shrewsbury females scored lower than males (F/M – 593/624) in the Math section also similar to state (F/M – 539/563) and national (F/M – 522/544) trends.
 - Evidence Based Reading & Writing (F – 588; M – 588)
 - Math (F – 593; M – 624)
- Page 9 **SAT: Participation Rates—Local School Districts (Figure 5)**
- All students at Shrewsbury High School are encouraged to take the SAT in preparation for college admissions. For the Class of 2017, 91% of seniors took the SAT, a particularly high percentage compared to most other high schools locally, statewide, and nationally.
- Page 10 **SAT: Comparison of Local School Districts (Figure 6)**
- Shrewsbury students in the Class of 2017 are compared to high schools in the region.
- Pages 11 **SAT: Shrewsbury High School One-Year and Five-Year Comparisons**
- As result of the redesigned test, the 2017 SAT test scores cannot be accurately compared to prior SAT scores.

Subject Test Scores:

Page 12-15 **Summary of SAT Subject Tests (Figures 7 – 13)**

- In five of the seven SAT Subjects Tests (Literature, US History, Math I, Math II, Biology Molecular), Shrewsbury students score higher when compared to students in Massachusetts and the nation. Individual Subject Test scores are summarized over the next several pages.
- This year, there is a notable gain compared to last year in the Math I Subject Test (p.13) of 43 points compared to the state average and 57 points when compared to the national average.
- Students taking the Biology Subject Test (p.14) have an option to take the test with an emphasis on Molecular Biology or Ecological Biology. More students at Shrewsbury elected to take the Molecular Biology Subject test this year resulting in scores that outpaced state and national averages. The Ecological Biology and Chemistry subject tests show a decrease in scores when compared to the state and/or national standards.

ACT:

Pages 16-18 **ACT Participation Rates and Mean Scores (Figure 14,15,16)**

- As a whole, Massachusetts has one of the lowest participation rates in the country. Shrewsbury has seen a decrease in the number of students electing to take the ACT. Of the 398 students in the Class of 2017, 131 students (33%) took the ACT. This is a decrease of 7% compared to last year.
- The average ACT score for the Shrewsbury's Class of 2017 is 26.0 (based on a scale of 1 – 36). This score is equivalent to about 1260 on the SATs.

Advanced Placement Exams:

Page 19 **Appropriate Grade Levels for AP Courses**

- The College Board does not recommend students in the 9th grade for AP courses. Instead, students should "develop the necessary skills and conceptual understandings in foundational courses prior to enrolling in AP."
- Nationally, 72% of all AP Exams were taken by juniors and seniors.
- Of all students taking AP Exams nationally, 37% of students take three or more exams; in the class of 2017, 39% of Shrewsbury students take three or more exams.

Page 20 **Participation Rates (Figure 17)**

- The number of exams administered has increased by 122 exams to a total of 668 exams. The number of students taking AP exams increased by sixty-eight students.
- The number of Seniors that took AP exams is 212.
- The number of Juniors that took an AP exam is 130.
- **Fifty-three percent (53%) of the students in the Class of 2017 took at least one AP exam.**

Page 21 **Average Scores—Shrewsbury High School and Nationally (Figure 18)**

- Scored on a scale of 1 – 5, the average AP Exam scores of Shrewsbury students are particularly impressive. All of the sixteen AP courses at Shrewsbury had an average score above 3.1—and ten out of sixteen had an average score of 4.0 and above. All scores were above the state and national averages.

Page 22 **AP Exams: Comparison of Local School Districts (Figure 19)**

- Most colleges award students scoring a 3 or higher with college credit. Shrewsbury students in the Class of 2017 ranked third out of ten comparable high schools in the region when comparing the percentage of students earning a score of 3 or higher.

Pages 23-24 **Exam Results—Shrewsbury High School**

- The percentage of students in the Class of 2017 scoring 3 or above is 92%.
- Eleven out of sixteen AP courses offered at Shrewsbury had at least 90% of their students scoring at a 3 or above.
- Thirty-eight percent (38%) of the exams administered resulted in a score of 5—the highest possible score available. **(Figure 20)**

Page 24 **Scholars**

- The total number of AP scholars in 2017 is 105.
- One hundred five of the 212 seniors (50%), who took AP exams were named AP Scholars or above. Four students were named AP National Scholar, granted to students who receive an average grade of 4 on all AP exams taken **and** a grade of 4 or higher on eight or more exams.

PSAT/NMSQT

Page 25-26 **National Merit Scholarship Program**

- One student from the Class of 2017 was named a National Merit Finalist and was a Scholarship Recipient.

Final Comments

Page 26-27 **Final Overview of the 2016–2017 School Year**

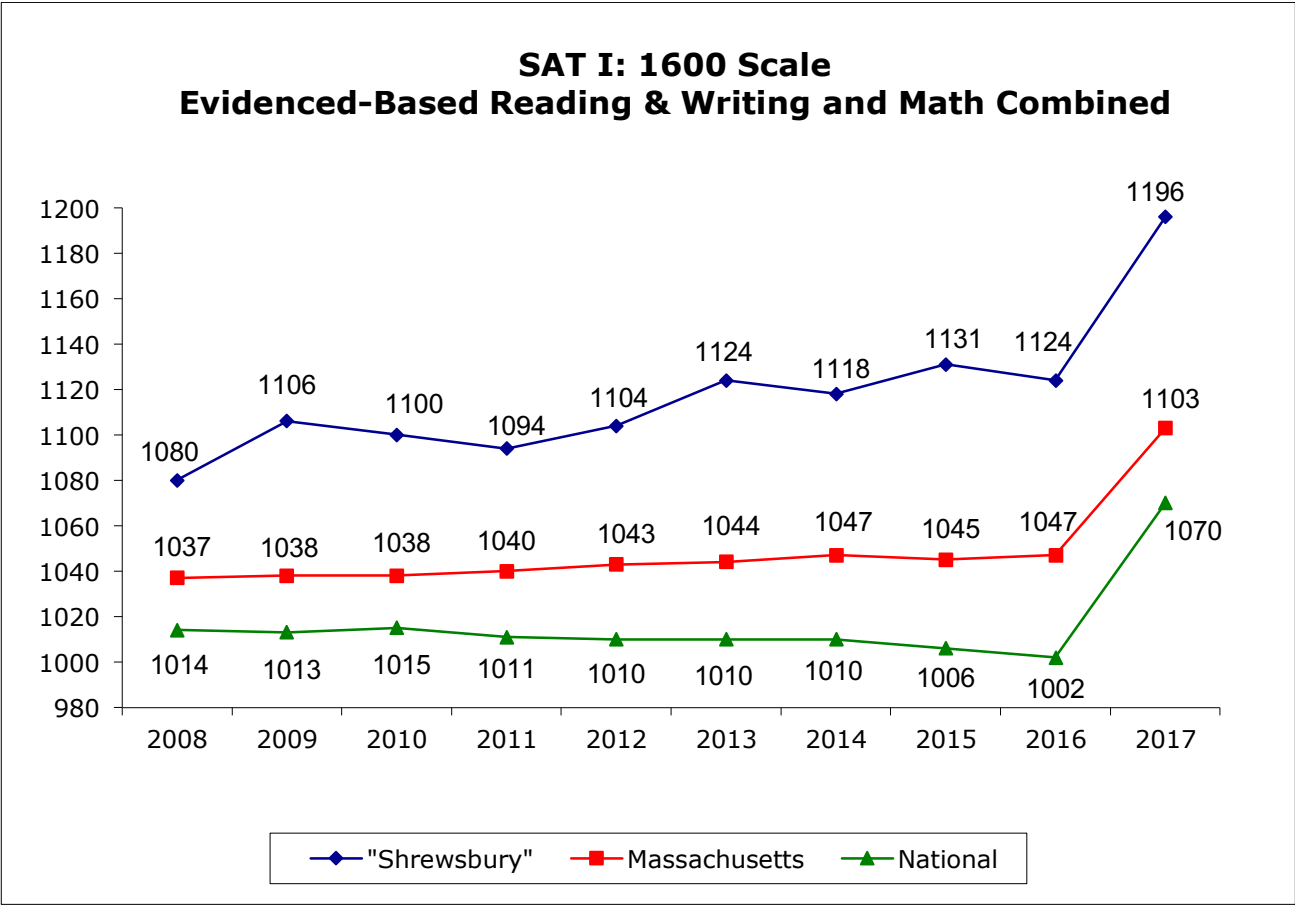


Figure 1

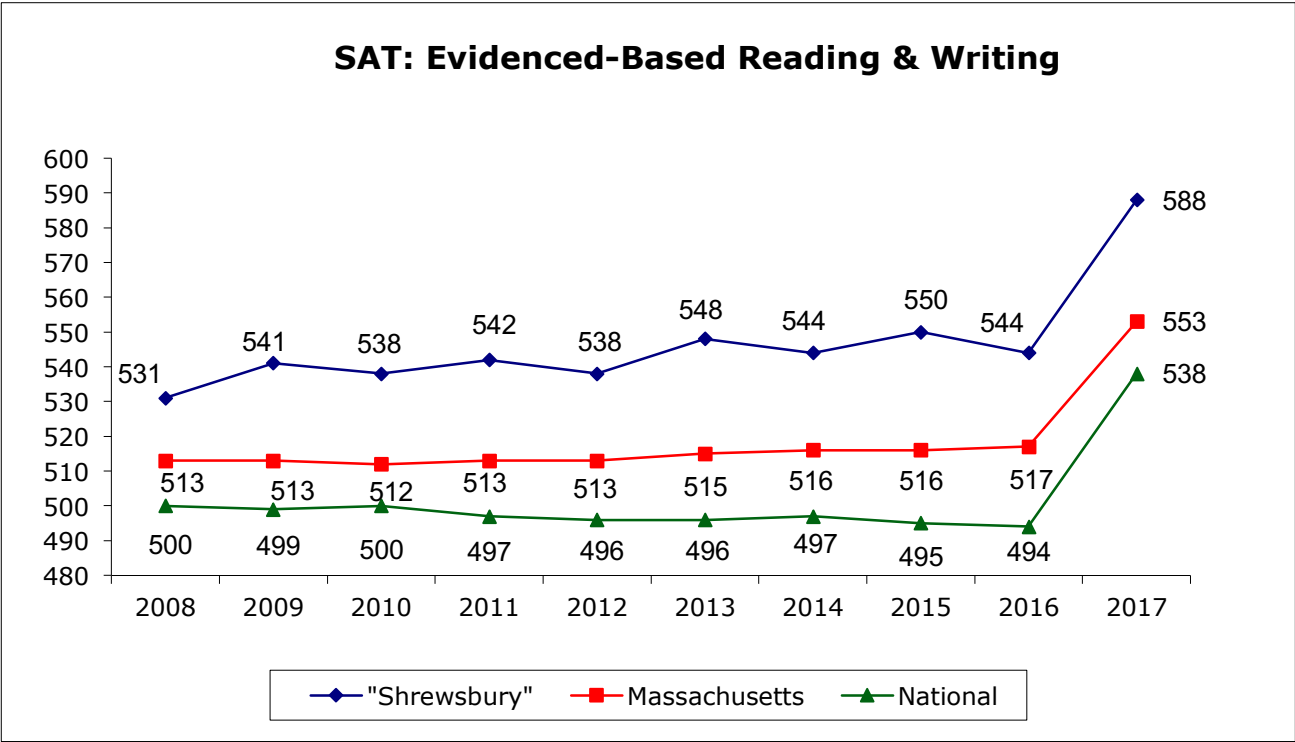


Figure 2

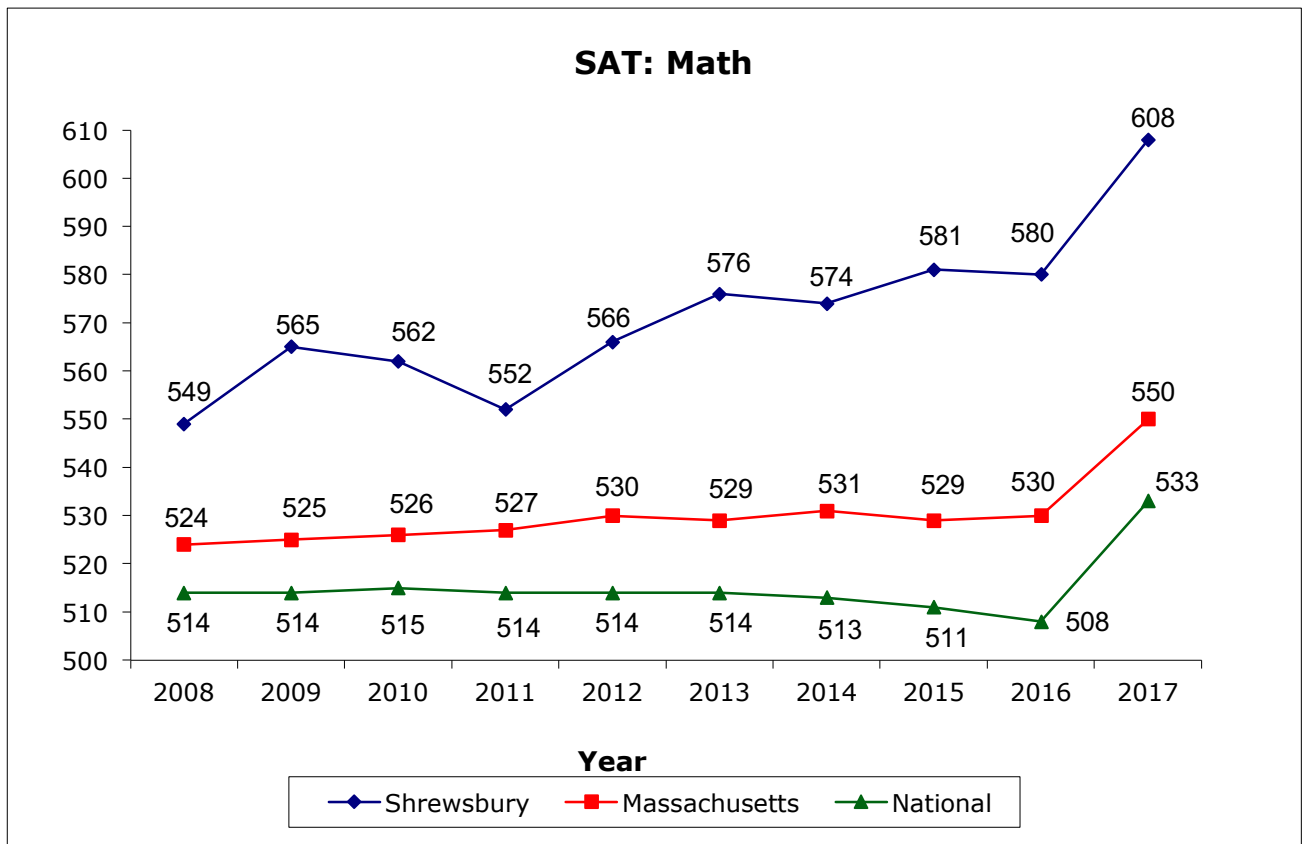


Figure 3

**Evidenced-Based Reading & Writing, and Math Scores by Gender
Shrewsbury High School, Massachusetts, and Nationally**

E-B Reading & Writing	SHS	Massachusetts	National
Males	588	554	537
Females	588	553	539
Male-to-Female Difference	0	+1	-2
Math	SHS	Massachusetts	National
Males	624	563	544
Females	593	539	522
Male-to-Female Difference	+31	+24	+22

**SAT—Scores by Gender 2017
Shrewsbury High School**

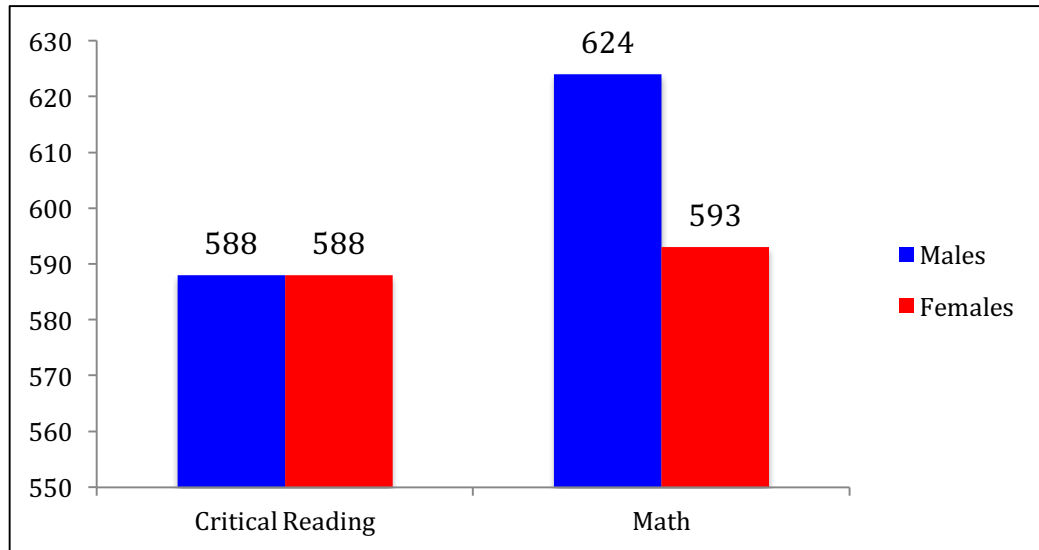


Figure 4

SAT Participation Rates Local School Districts

School	# of test takers	Class 2017 Class Size	Participation Rate (%)
Hopkinton	201	278	72%
Wachusett	418	516	81%
Algonquin	314	357	88%
Nashoba	217	248	88%
Westford Academy	349	398	88%
Chelmsford	331	373	88%
Franklin	361	404	89%
Westboro	218	246	90%
Acton-Boxborough	425	467	91%
Shrewsbury	361	398	91%

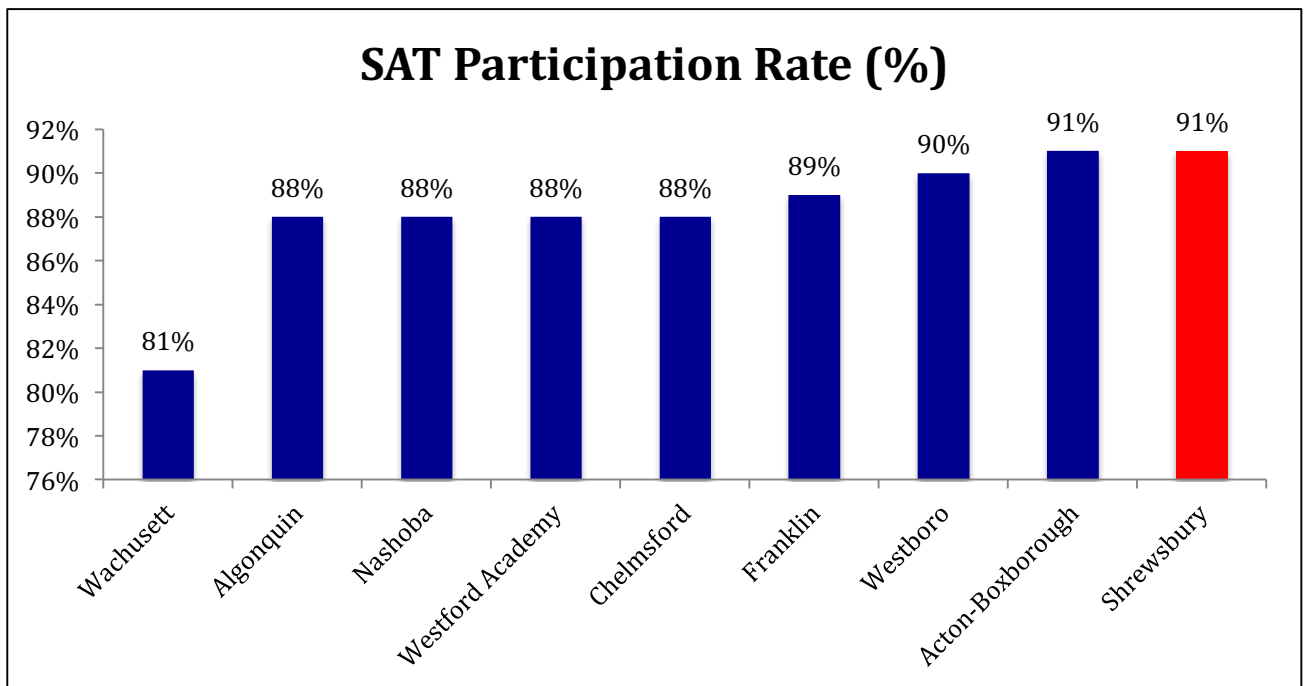


Figure 7

SAT Mean Scores

Local School Districts 2017

School	# of test takers	Evidenced Based Reading and Writing	Math	Combined EBRW and Math
Wachusett	418	575	567	1142
Franklin	361	585	578	1163
Chelmsford	331	580	587	1167
Algonquin	314	594	596	1190
Shrewsbury	361	588	608	1196
Westboro	225	601	604	1205
Nashoba	217	603	609	1212
Hopkinton	201	606	618	1224
Westford Academy	349	611	624	1235
Acton-Boxborough	425	638	651	1330

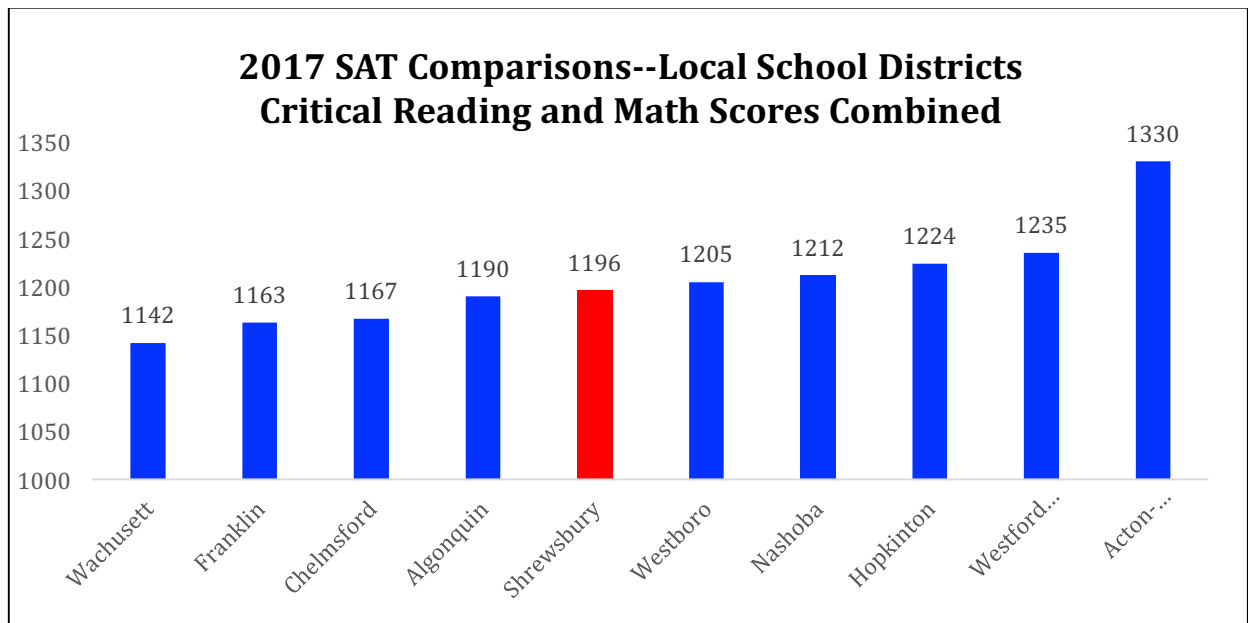


Figure 8

Shrewsbury High School One-Year and Five-Year Comparisons

As result of the redesigned test, the 2017 SAT test scores cannot be accurately compared to prior SAT scores.

SAT Subject Tests

Most colleges do not require the Subject Tests; in fact, only 40 – 50 colleges in the United States requires students to submit SAT Subject Tests as part of the application process. Subject Tests offer colleges a way to gauge a student's knowledge of particular subjects. Most colleges requiring students to submit their Subject Test scores require two or three Subject Test scores.

Each SAT Subject Test is one hour in length, and students may take one, two, or three Subject Tests on each test date.

Along with several different language tests, SAT Subject Tests are offered in the following areas:

- **English:**
 - Literature
- **Mathematics**
 - Math I
 - Math II
- **Science:**
 - Biology—Ecological
 - Biology—Molecular
 - Chemistry
- **History:**
 - World History
 - U.S. History

Shrewsbury High School

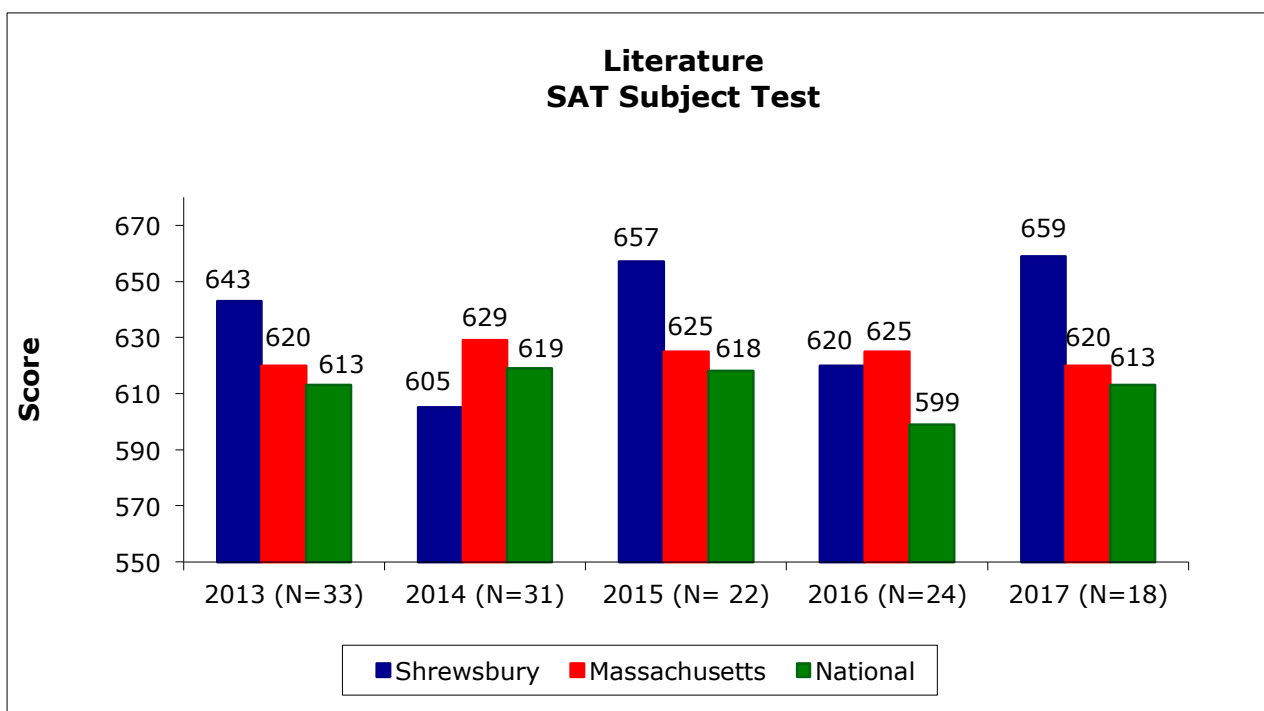


Figure 10

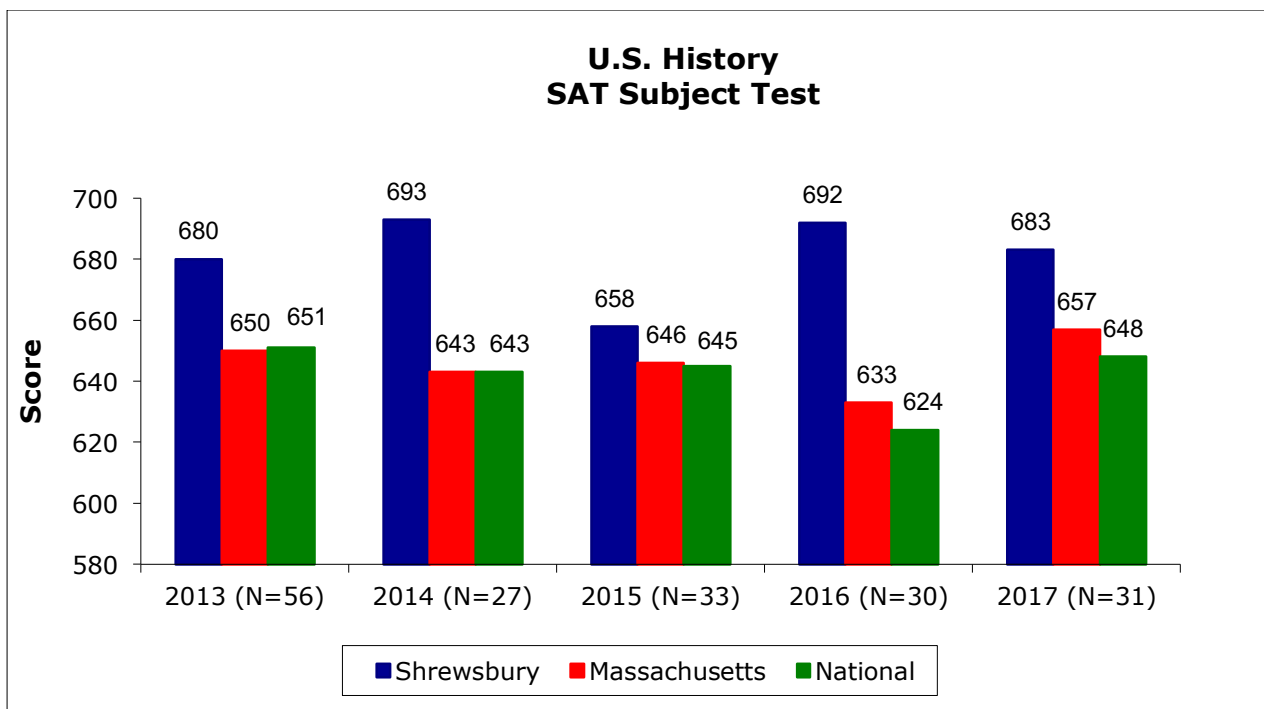


Figure 11

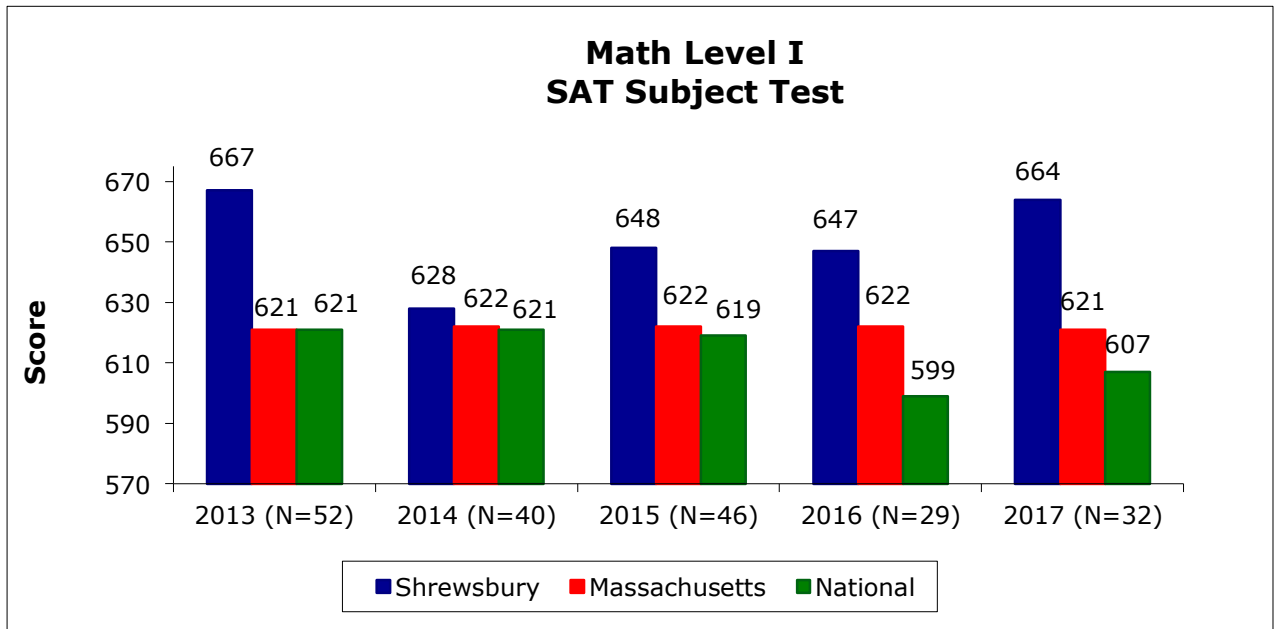


Figure 12

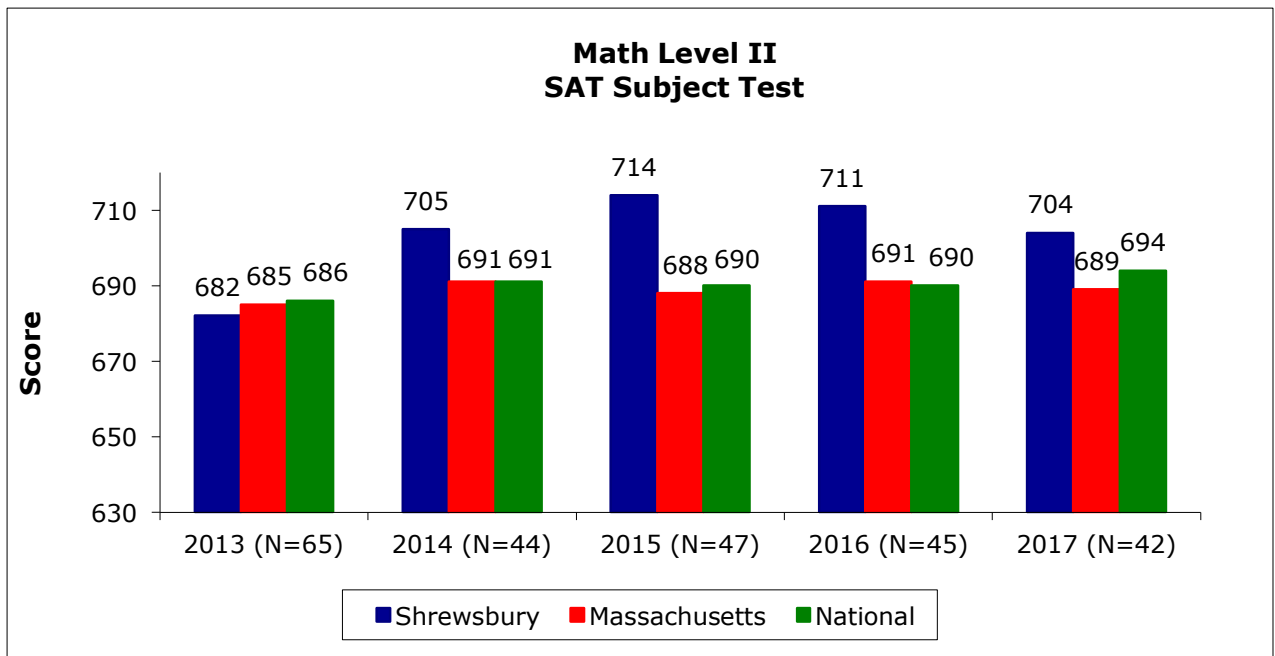


Figure 13

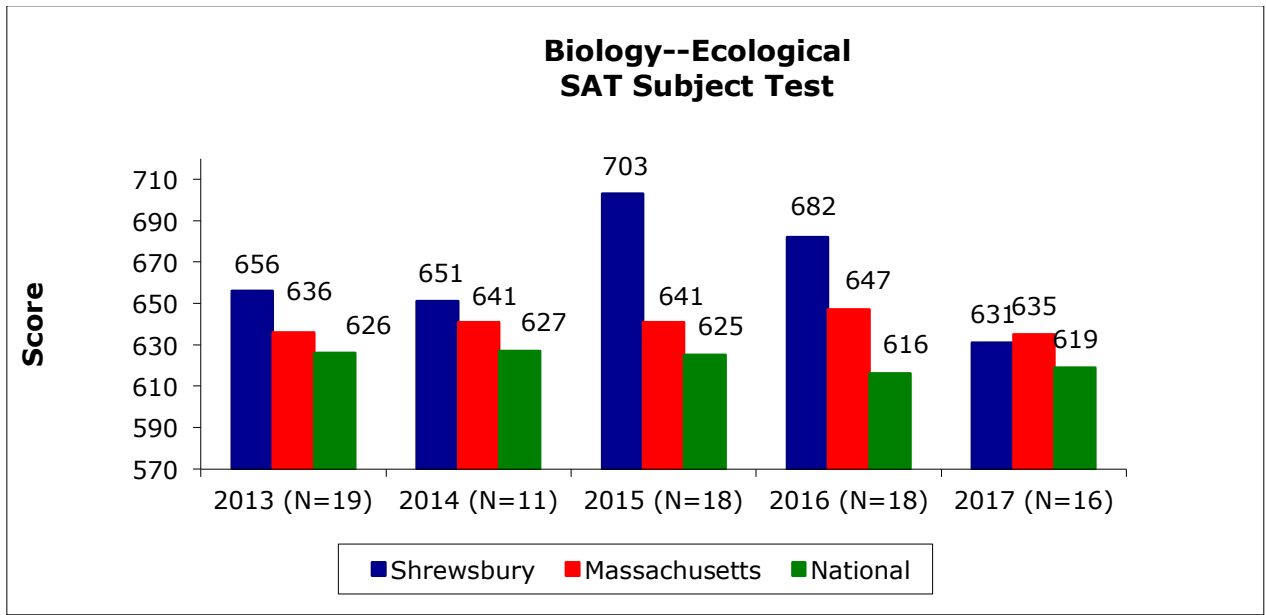


Figure 14

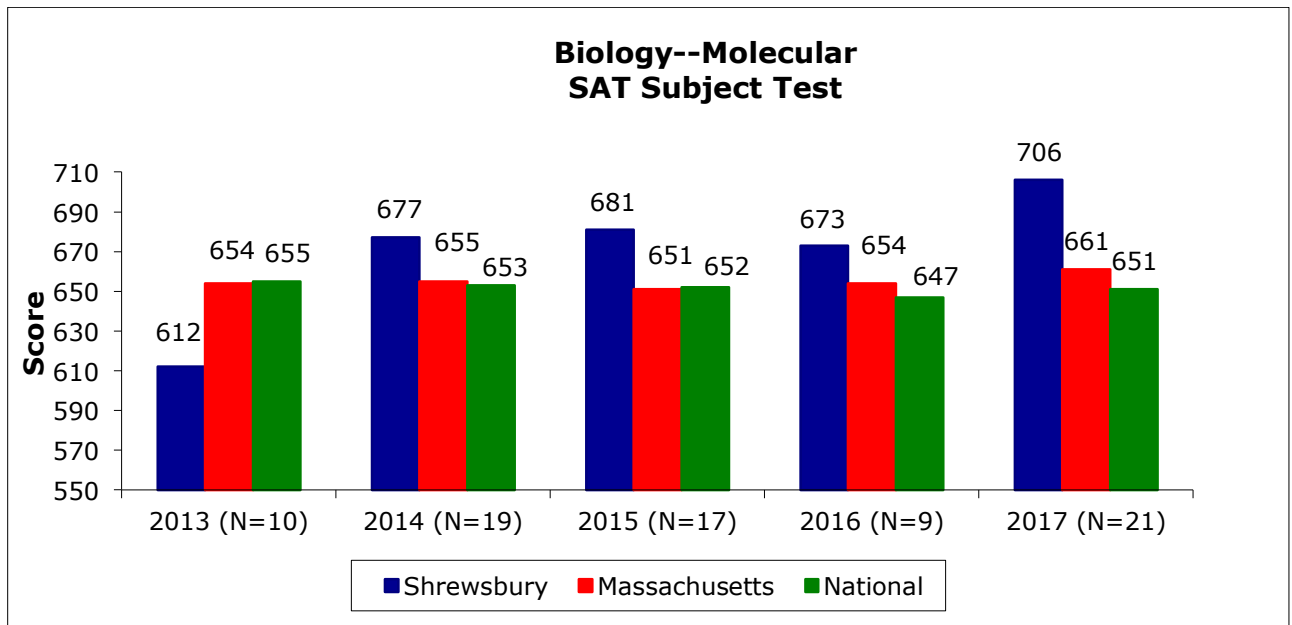


Figure 15

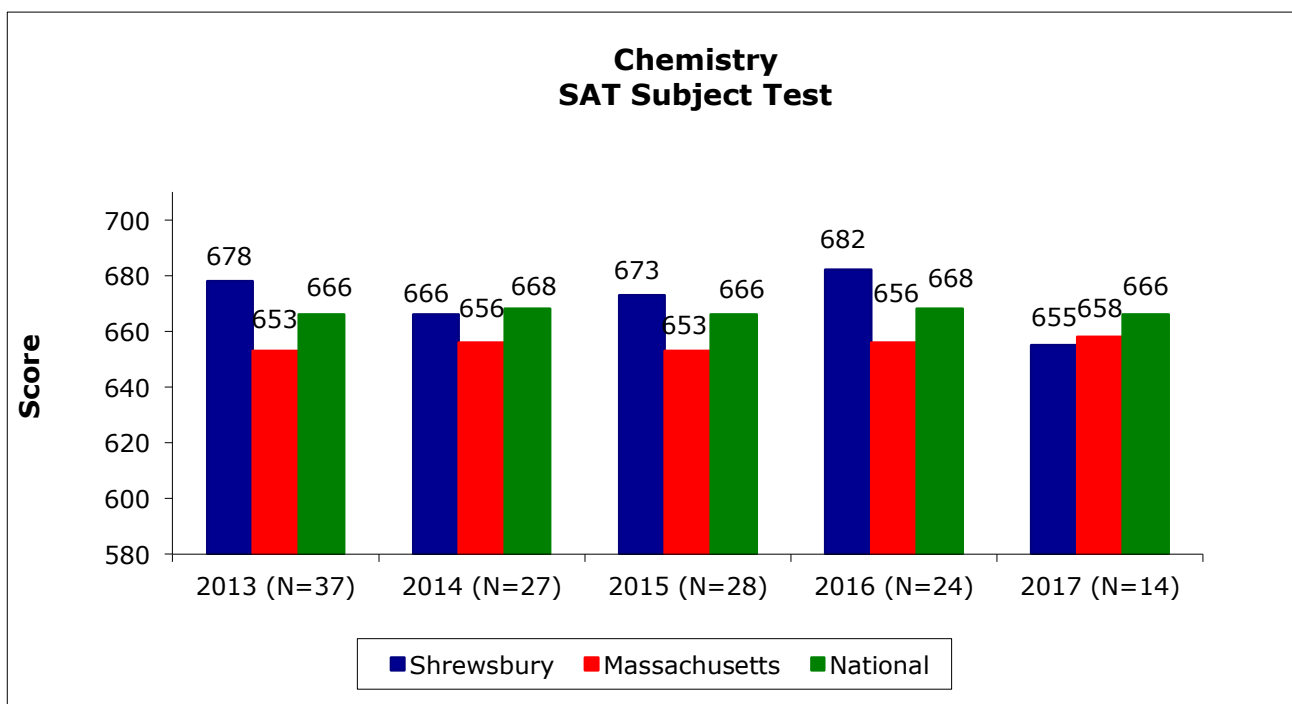


Figure 16

ACT

The ACT measures critical skills in English, mathematics, reading, writing, and science. ACT was previously known as the American College Testing Program, but that name has been dropped and today it's officially just the ACT (pronounced A-C-T).

Students receive six different scores—a composite score along with an individual score in English, Math, Reading, Science Reasoning, and Writing.

ACT STRUCTURE			
Section	Time	# of Ques.	Scoring
English	45 mins.	75	1 – 36
Math	60 mins.	60	1 – 36
Reading	35 mins.	40	1 – 36
Science Reasoning	35 mins.	40	1 – 36
Writing (Optional)	30 mins.	1 essay	2 – 12

Students may take the ACT™ more than once, and similarly to the relatively new SAT-reporting policy, students may specify which test date score they want colleges to see.

Shrewsbury High School Score Results

Although growing in popularity, Massachusetts has one of the lowest ACT participation rates in the country. Historically, most schools in the mid-West and West encourage students to take the ACT. At the same time, most high schools in New England and the East Coast encourage students to take the SAT. On a national basis, 1.64 million students took the SAT last year and 2 million students took the ACT.

ACT Participation over a Seven-Year Span

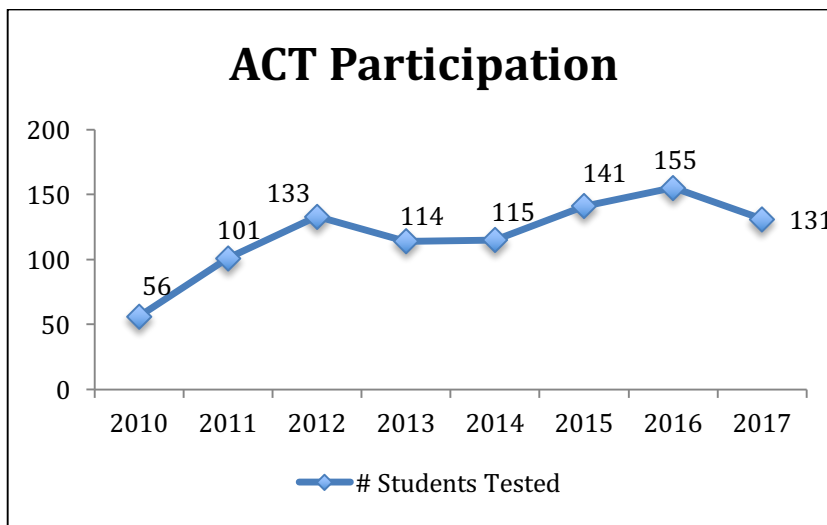


Figure 18

Of the 398 students in the Class of 2017, 131 students took the ACT with the following results in each section compared over a three-year span:

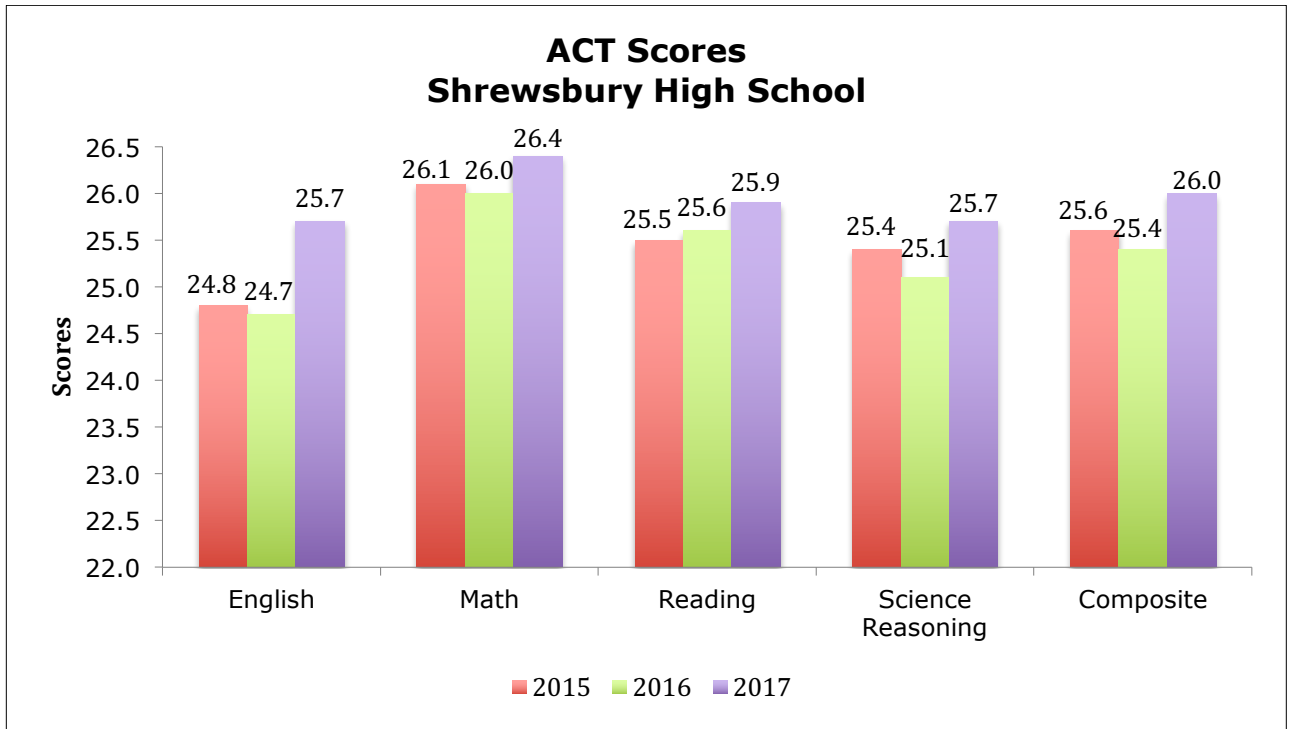


Figure 19

2017 SHS Mean ACT scores are compared with State and National Means:

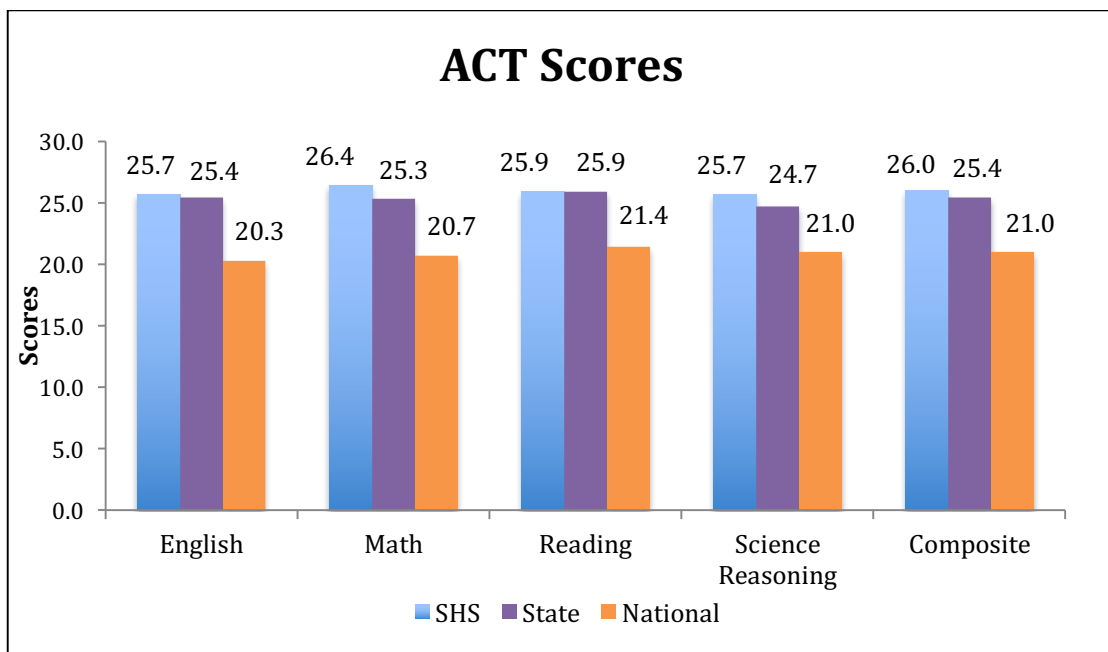


Figure 20

SAT – ACT Conversion Chart

SAT to ACT		ACT to SAT	
SAT score EBRW + Math	ACT Composite Score	ACT Composite Score	SAT score EBRW + Math
1600	36	36	1600
1560-1590	35	35	1570
1520-1550	34	34	1540
1490-1510	33	33	1500
1450-1480	32	32	1470
1420-1440	31	31	1430
1390-1410	30	30	1400
1350-1380	29	29	1360
1310-1340	28	28	1320
1280-1300	27	27	1290
1240-1270	26	26	1260
1200-1230	25	25	1220
1160-1190	24	24	1180
1130-1150	23	23	1140
1100-1120	22	22	1110
1060-1090	21	21	1070
1020-1050	20	20	1030
980-1010	19	19	990
940-970	18	18	950
900-930	17	17	910
860-890	16	16	870
810-850	15	15	830
760-800	14	14	780
720-750	13	13	750
630-710	12	12	680
560-620	11	11	590

Shrewsbury's composite ACT average score of 26.0 converts to approximately 1260 on the SATs.

Advanced Placement Program

The Advanced Placement (AP) Program consists of a series of college-level courses and exams for secondary school students. Satisfactory completion of an AP Exam makes it possible for a student to earn college credit or advanced standing in college prior to arrival on the college campus. AP Exams are rigorous, multiple-component tests that are administered each May.

Of the 398 students in the Class of 2017, 212 students (53% of the class) took at least one AP Exam. Overall, 668 exams were administered to students in 2017.

The following AP courses were offered during the 2016 – 2017 school year:

- Biology
- Calculus AB
- Calculus BC
- Chemistry
- English Language
- English Literature
- Environmental Science
- French Language
- Human Geography
- Music Theory
- Psychology
- Physics 1
- Spanish Language
- Statistics
- Studio Art Drawing
- U.S. History

Appropriate Grade Levels for AP Courses

The College Board's policy related to the appropriate grade levels for AP courses reads as follows:

"The AP Program recognizes the autonomy of secondary schools and districts in setting the AP course participation policies that best meet their students' unique needs and learning goals. At the same time, AP courses are specifically designed to provide challenging, college-level coursework for willing and academically prepared high school students. Student performance on AP exams illustrate that in many cases, AP courses are best positioned as part of a student's 11th and 12th grade academic experience. Some subject areas, however, such as World History and European History, can be successfully offered to academically prepared 10th grade students.

Educators should be mindful of the following when considering offering AP to younger students. AP courses are rarely offered in 9th grade, and exam results show that, for the most part, 9th grade students are not sufficiently prepared to participate in a college-level course. Therefore, the College Board believes these students would be better served by coursework focusing on the academic building blocks necessary for later, successful enrollment in college-level courses. Many college admissions officers support this position, feeling that students should not be rushed into AP coursework, but should instead develop the necessary skills and conceptual understandings in foundational courses prior to enrolling in AP. AP coursework completed in 9th grade is not often deemed credible by the higher education community."

National Participation Rate in the AP Program

Of all students taking AP exams, the percentage of students at each grade level is indicated below. In other words, last year, 72% of all AP Exams were taken by juniors and seniors.

12 th grade	35%
11 th grade	37%
10 th grade	20%
9 th grade	6%

Number of AP Exams per Student—SHS and Nationally

The figures below show the cumulative number of exams individual students (from the Class of 2017 at Shrewsbury High School and nationally) took during their high school career from the years 2014 to 2017.

# of Exams Taken by Students	Class of 2017 National %	Class of 2017 Cumulative % National	SHS # of Students Taking Exams	Class of 2017 SHS %	Class of 2017 Cumulative % SHS
1	39.8%	39.8%	76	35.8%	35.8%
2	20.5%	60.3%	54	25.4%	61.2%
3	13.1%	73.4%	28	13.2%	74.4%
4	8.8%	82.2%	19	9.0%	83.4%
5	6.0%	88.2%	11	5.2%	88.6%
6 or more	11.8%	100%	24	11.3%	100%

Advanced Placement Participation Rates Shrewsbury High School

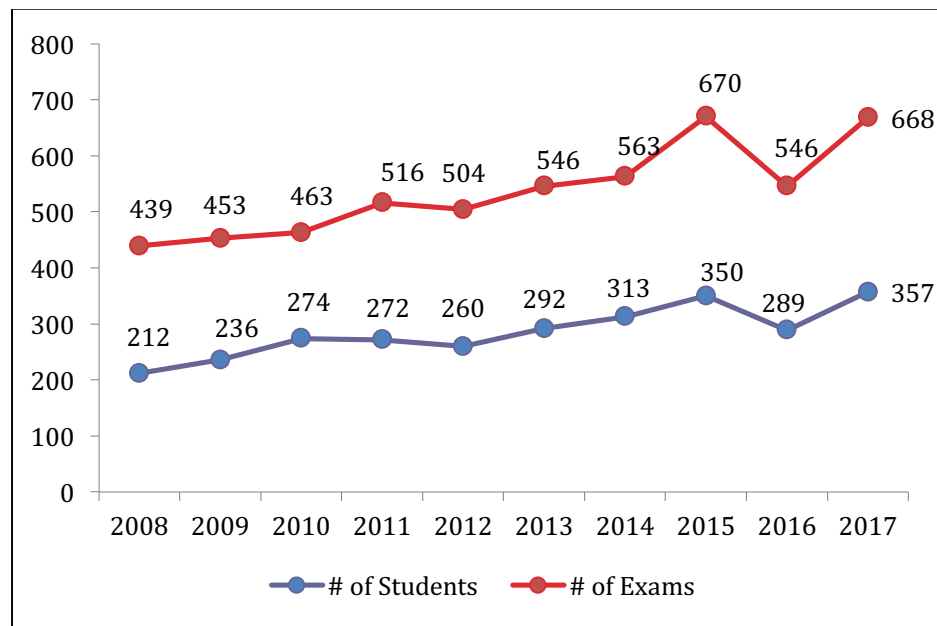


Figure 21

Advanced Placement Exams 2017

Average Scores Shrewsbury High School, Massachusetts, and Nationally

	# of Tests Taken	SHS	Mass	National
Biology	49	3.9	3.1	2.9
Calculus AB	54	4.0	3.2	2.9
Calculus BC	37	4.1	4.1	3.8
Chemistry	30	4.6	3.0	2.6
English Language	52	4.2	3.2	2.8
English Literature	27	4.3	3.0	2.7
Environmental Sci	21	4.1	2.9	2.7
French Language	9	4.0	3.7	3.2
Human Geography	21	3.1	2.8	2.5
Music Theory	7	4.0	3.3	3.0
Psychology	129	4.1	3.2	3.1
Physics 1	19	3.9	2.5	2.4
Spanish Language	13	4.6	3.7	3.6
Statistics	110	3.7	2.8	2.7
Studio Art Draw	6	3.6	3.6	3.5
US History	55	3.7	3.2	2.6

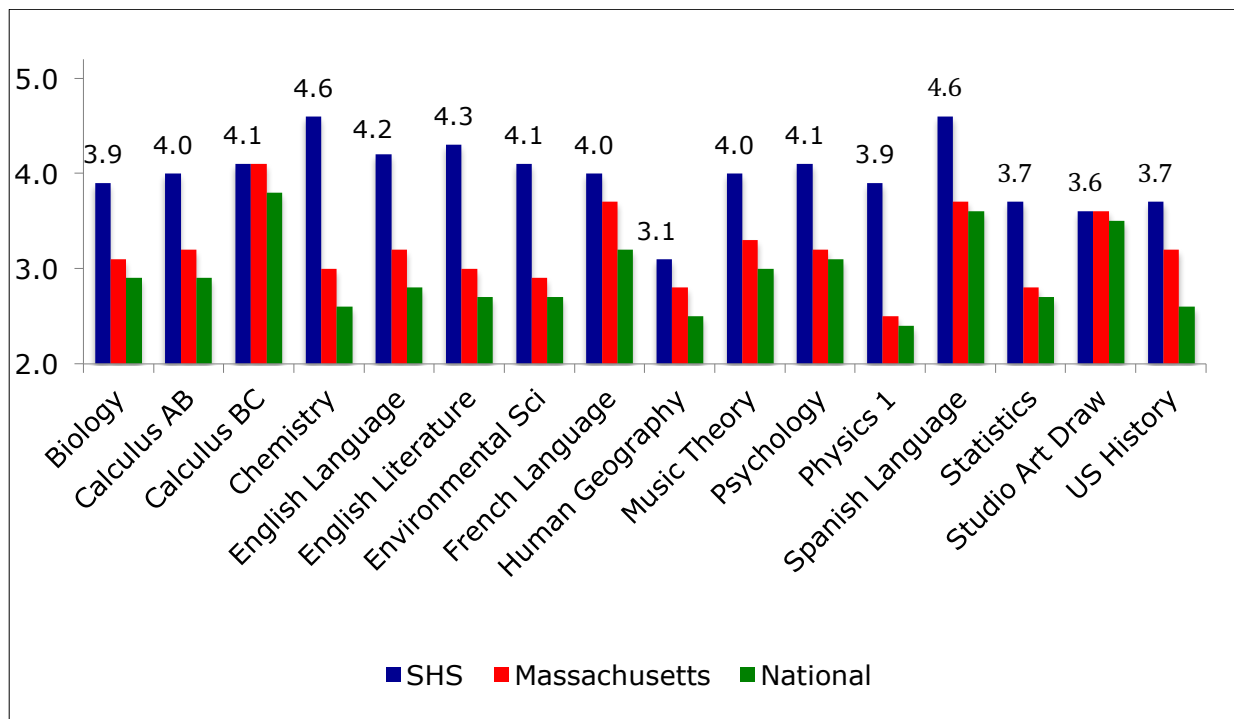


Figure 22

AP Exam Scores

Local School Districts

School	# of Test Takers	Total Exams Taken	% of Exams with Scores of 3, 4, or 5
Franklin	421	797	74%
Chelmsford	305	566	78%
Algonquin	393	745	87%
Wachusett	361	608	88%
Hopkinton	461	997	89%
Nashoba	305	584	90%
Westborough	258	524	91%
Shrewsbury	357	668	92%
Acton-Boxborough	433	973	94%
Westford Academy	390	695	98%

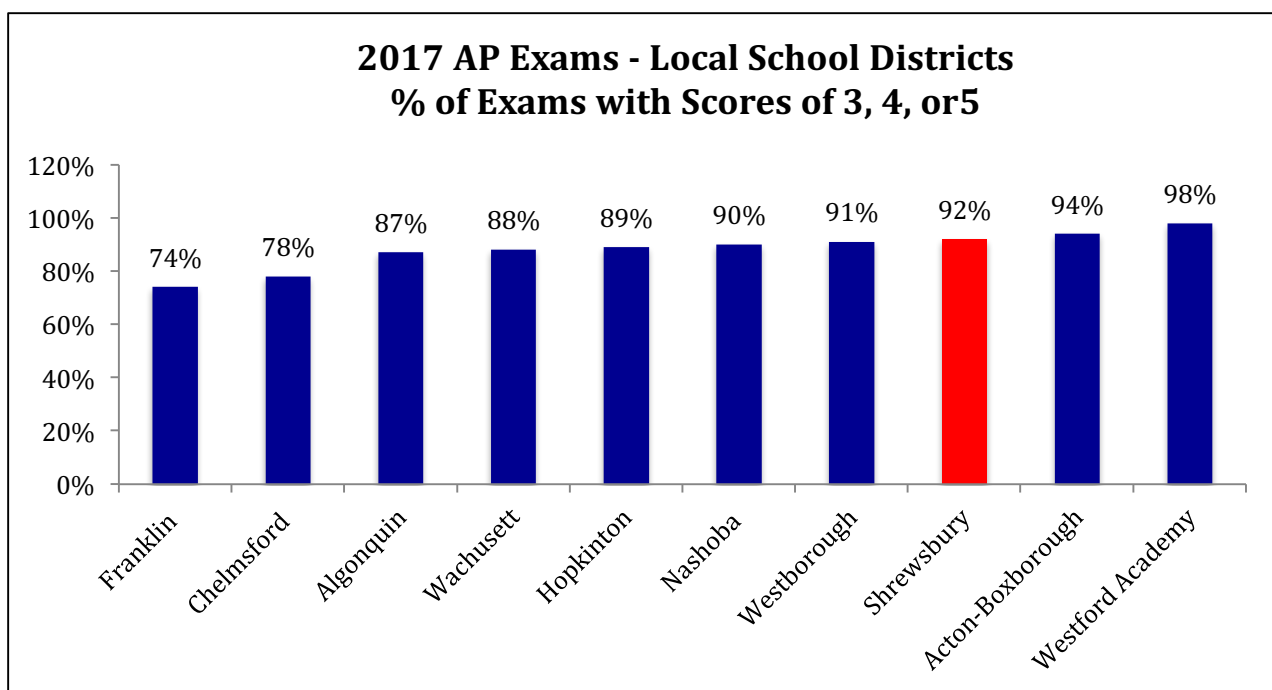


Figure 23

2017 Advanced Placement Exam Results

	5	4	3	2	1	# of tests administered	2017 % scoring 5	2017 % scoring 4 or above	2017 % scoring 3 or above	2016 % scoring 3 or above
Biology	11	23	15	0	0	49	16%	72%	98%	98%
Calculus AB	16	23	14	0	1	54	64%	85%	88%	88%
Calculus BC	18	11	3	5	0	37	63%	84%	93%	93%
Chemistry	20	8	2	0	0	30	47%	80%	100%	100%
English Language	21	18	13	0	0	52	53%	90%	100%	100%
English Literature	11	12	4	0	0	27	52%	84%	96%	96%
Environmental Science	8	7	5	1	0	21	11%	50%	72%	72%
French Language	2	5	2	0	0	9	27%	73%	100%	100%
Human Geography	8	9	1	3	0	21	26%	48%	91%	91%
Music Theory	3	1	3	0	0	7	38%	63%	75%	75%
Physics 1	6	8	2	3	0	19	0%	67%	89%	89%
Psychology	57	37	24	9	2	129	50%	76%	93%	93%
Spanish Language	9	3	1	0	0	13	81%	100%	100%	100%
Statistics	37	22	35	12	4	110	35%	73%	89%	89%
Studio Art Draw	1	1	3	0	0	5	33%	67%	100%	100%
US History	17	17	11	8	2	55	53%	86%	98%	98%
Totals	245	205	138	41	9	638	38%	71%	92%	93%

Students took the following exams but the related class was not specifically offered at the high school (unless through VHS):

	5	4	3	2	1	# of tests administered	2017 % Scoring 5	2017 % scoring 4 or above	2017 % scoring 3 or above	2016 % scoring 3 or above
Chinese	0	0	1	0	0	1	0%	0%	100%	-
Computer Science A	1	0	1	0	0	2	100%	100%	100%	100%
German	1	0	0	0	0	1	100%	100%	100%	-
Macroeconomics	1	5	2	2	1	11	23%	54%	69%	80%
Microeconomics	1	6	1	1	1	10	15%	54%	92%	88%
US Government & Politics	1	0	0	1	2	4	0%	100%	100%	71%
World History	0	0	1	0	0	1	0%	0%	100%	-
Totals	6	10	9	3	2	30	20%	53%	83%	83%

Quick Highlights:

- The number of students taking AP exams is 357 (68 more than last year).
- The number of AP exams administered is 668 (122 more than last year).
- There were 30 exams taken by students self-studying or taking VHS courses.
- 53% of seniors took at least one AP exam, a particularly high percentage compared to most high schools.
- 38% of the exams administered resulted in a score of 5—the highest possible score available.

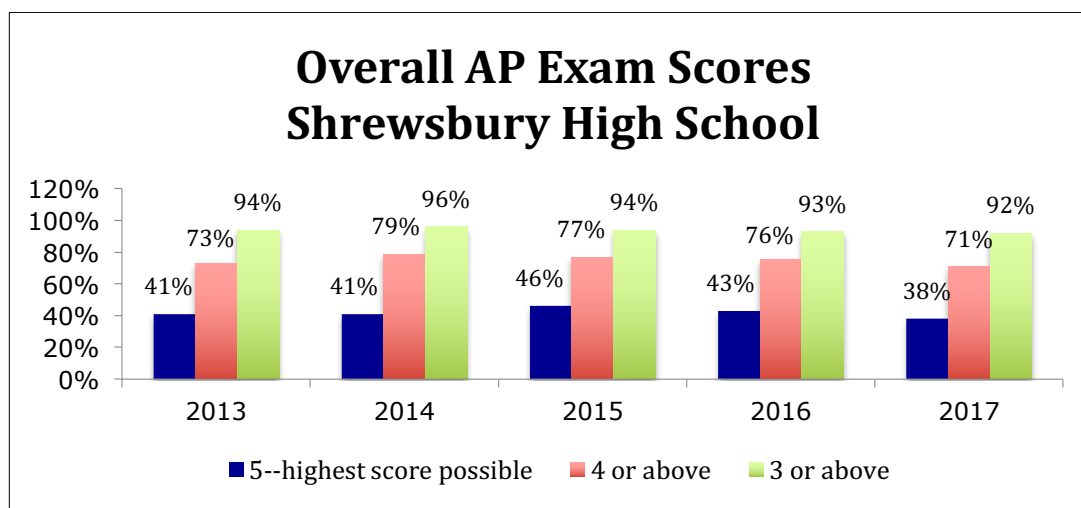


Figure 24

Advanced Placement Scholars

The AP Program offers several AP Scholar Awards to recognize high school students who have demonstrated college-level achievement through AP courses and exams. Although there is no monetary award, in addition to receiving an award certificate, this achievement is acknowledged on any AP Score Report that is sent to colleges the following fall.

Award Levels 2017

AP Scholar: Granted to students who receive scores of 3 or higher on three or more AP Exams.

AP Scholar with Honor: Granted to students who receive an average score of at least 3.25 on all AP Exams taken, **and** scores of 3 or higher on four or more of these exams.

AP Scholar with Distinction: Granted to students who receive an average score of at least 3.5 on all AP Exams taken, **and** scores of 3 or higher on five or more of these exams.

National AP Scholar: Granted to students in the United States who receive an average score of at least 4 on all AP Exams taken, **and** scores of 4 or higher on eight or more of these exams. (Students are included in the scholar category.)

Year	AP Scholar	AP Scholar w/Honors	AP Scholar w/Distinction	AP National Scholar	Total # of AP Scholars
2017	46	18	37	4	105
2016	47	21	33	6	107
2015	48	39	37	2	124
2014	29	25	31	1	85
2013	41	26	31	1	98
2012	19	25	44	2	88
2011	31	27	25	1	83
2010	31	15	19	3	65
2009	23	17	38	4	78
2008	30	20	32	3	82

PSAT/NMSQT

The Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT) is a program cosponsored by the College Board and National Merit Scholarship Corporation (NMSC). It's a standardized test that provides firsthand practice for the SAT. It also gives students a chance to enter the NMSC scholarship programs and gain access to college and career planning tools.

Similarly, to the SAT, the PSAT/NMSQT measures:

- Critical reading skills
- Math problem-solving skills
- Writing skills

Shrewsbury High School

Year	Commended	Finalist	Scholarship Recipient	Hispanic Recognition Program
2017	15	1	1	-
2016	19	2	2	-
2016	19	2	2	-
2015	19	1	1	-
2014	14	1	1	-
2013	17	4	1	1
2012	19	4	1	-
2011	12	1	1	-
2010	16	4	1	-
2009	17	3	1	-
2008	18	2	1	-
2007	14	3	1	-
2006	10	3	-	1
2005	15	2	-	-
2004	8	2	1	-
2003	8	2	1	2
2002	5	3	-	-
2001	4	1	-	-

National Merit Scholarship Program

Program Recognition: Of the 1.5 million juniors who take the PSAT, the top 2%-3% with the highest combined scores (Critical Reading + Mathematics + Writing Skills) qualify for recognition in the National Merit Scholarship Program.

Commended Students: students who score in the top 2% - 3% of all test takers.

Semifinalists: students who score in the top 1% - 1.5% of all test takers. To ensure that academically able young people from all parts of the United States are included in this talent pool, Semifinalists are designated on a state-by-state basis. That is, semifinalists are the highest scoring entrants in each state. To be considered for a National Merit Scholarship, Semifinalists must advance to Finalist standing in the competition by meeting high academic standards.

Finalists: Most students (approximately 90%) who complete the Semifinalist application process will be named National Merit Finalists.

Scholarship Recipients: All winners of Merit Scholarship awards (Merit Scholar® designees) are chosen from the Finalist group, based on their abilities, skills, and accomplishments—without regard to gender, race, ethnic origin, or religious preference. A variety of information is available for NMSC selectors to evaluate—the Finalist's academic record, information about the school's curricula and grading system, two sets of test scores, school official's written recommendation, information about the student's activities and leadership, and the Finalist's own essay.

2016 – 2017 School Year

- **PSAT:**
 - The School Counseling Department offers all juniors and sophomores the opportunity to take the PSAT, which has resulted in a continuous increase in the number of students who took the test. In addition, a few freshman students opt to take the PSAT with available tests.
- **ACT:**
 - Traditionally, the ACT and SAT are two different standardized tests that measure completely different skills. While the SAT is an aptitude test (a problem-solving test), the ACT is curriculum-based. That is, students either know the answers or they don't—they can't sit there and try to solve the problem. As a result, there are certain students who will naturally score higher on the ACT than on the SAT. With the redesigned SAT, the test sections include more school related subject questions such as science and social studies making the SAT more similar to the ACT. The School Counseling Department encourages students to take both the ACT and SAT.
- **SAT:**
 - The SAT is offered at the high school in October, November, March, May, and June resulting in a greater opportunity for students because of the convenience for students to take the SAT more than once resulting in more familiarity with the test and improved scores.
 - Shrewsbury High School offers an SAT Prep Class throughout the year. For the past few years, Shrewsbury has offered two classes in the spring and one class in the fall. The enrollment of the Fall session totaled 45 students and the Spring sessions totaled 83 students. The enrollment fee for the course is \$250 for Shrewsbury residents and \$325 for non-residents. This cost is an affordable option to test preparation compared to most local, regional, and national test preparation companies.
 - The College Board redesigned the SAT, which launched in March 2016. The New SAT reflect skills that are more similar to classroom skills based on the Common Core. School counselors have attended conferences to learn about details the New SAT. The core academic directors, school counseling director, and administrators have met to discuss the implications of the redesigned SAT and its implications to the curriculum and test preparation. This year is the first reporting year of the redesigned SAT.

- **Advanced Placement Courses:**
 - The number of students taking AP Exams has increased for 2016-2017. While students are not recommended to take more than three AP classes per year to help balance a student's schedule and extra-curricular commitments, each student's schedule is considered individually.
 - Due to cost and available space, all AP exams are administered on site at Shrewsbury High School utilizing the field house and dance studio for larger exams and smaller classroom and language lab for smaller and language exams.



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **V. Curriculum**
B. State Testing: Annual Report

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

Each year, the administration provides a report on the district's performance on state exams. Ms. Clouter will summarize the report on MCAS exams and be available to answer questions.

ACTION RECOMMENDED:

That the School Committee accept the report and take whatever steps it deems necessary in the interests of the Shrewsbury Public Schools.

STAFF AVAILABLE FOR PRESENTATION:

Ms. Amy B. Clouter, Assistant Superintendent for Curriculum, Instruction, & Assessment

MCAS 2017 *Information about Student Achievement, Growth & New State Testing procedures*

by Amy Clouter, Assistant Superintendent for Curriculum, Instruction and Assessment

Introduction

As you know, the adoption of the Education Reform act in 1993 launched an ambitious plan to raise standards in public schools.¹ To provide accountability and in an effort to ensure equal opportunities for all students, the Massachusetts Comprehensive Assessment System (or MCAS) was developed shortly thereafter. In the 20 years since, rates of student achievement have increased significantly. Our state is leading the nation in educational excellence. At the same time, schools have changed considerably since 1993. The Department acknowledged the need to continue refining our approach to teaching and learning and thus Massachusetts' state-wide assessment program has been in transition over the past several years.

Our experience with the PARCC test in 2016 previewed an assessment system designed to prepare students for the rigorous tasks they are likely to face at college and/or in their careers. However, some districts opted not to participate in PARCC testing. The "next generation" MCAS test implemented in most grades this past year was conceived to resolve the controversial issue of which assessment system the state would adopt as a whole going forward.

The Board of Elementary and Secondary Education resolved this issue with a vote in 2015 to move forward with this new version or MCAS 2.0, a Massachusetts specific assessment built from the PARCC framework. Last spring provided us a first look at this new test. However, this new version was only implemented in Grades 3-8 in English Language Arts (ELA) and Math, which means that this report will depict results from two different assessments, the original MCAS "legacy" test that students were given in Science & Technology in Grades 5, 8, and 9 and in ELA and Math in Grade 10, and the "next generation" assessment administered in 2017.

<u>Legacy MCAS</u>	vs.	<u>"Next-Generation" MCAS</u>
<i>Only Grades 5 and 8</i>		MCAS 2.0: <i>ALL Grades 3-8</i>
Science, Technology/Engineering test		English Language Arts & Math
<i>ALL high school tests</i>		
<ul style="list-style-type: none">English Language Arts, Math, Science/Technology		

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

MCAS 2.0 was designed to be given on a computer. Our investment in technology meant that Shrewsbury students in Grades 4-8 were able to take a computer-based version of the test. However, students in Grade 3 took the paper based version of the test. To ensure fairness regardless of test form (computer or paper) the DESE used the results from parts of the test that are **similar** to help adjust the scoring on parts of the test that vary by format. All students in Shrewsbury were able to successfully respond to expectations of the next generation of assessments.

Given that this is the first year that most of our students took this version of the test, the transition occurring in the state testing program and the wide number of variables that exist from district to district, it is advisable to be aware of student performance data, but to be cautious around drawing any conclusions or comparisons about the progress and growth of Shrewsbury students based on this data.

Additional administration details are still being developed for 2018 and are subject to further deliberation by the Board of Elementary and Secondary Education. However, consistent with the Board's November 2015 vote, test scores from the spring 2017 Next-Generation MCAS administration in grades 3-8 will not negatively impact accountability results in 2018 and going forward. What does this mean for Shrewsbury Public Schools? Districts with participation rates at 90% or higher with satisfactory graduation rates will not receive an accountability level or Progress and Performance Index (PPI), the rating that was historically used to track progress. Shrewsbury Public Schools received a Level 2 classification for accountability and assistance in 2016*. Our current participation and graduation rates remained high last year. For this reason, this year our current district accountability level is: No Level

The link to the details for the Shrewsbury accountability report can be found here:

<http://profiles.doe.mass.edu/accountability/report/district.aspx?linkid=30&orgcode=02710000&orgtypecode=5&>



2017 Official Accountability Data - Shrewsbury

District Information	
District:	Shrewsbury (02710000)
Region:	Central
Title I Status:	Yes
Accountability Information	
Accountability and Assistance Level	
No level	Students in grades 3-8 participated in 2017 Next Generation MCAS tests
This district's determination of need for special education technical assistance or intervention	
Meets Requirements-At Risk (MRAR)	



Shrewsbury Public Schools and State Results

As before, districts received information about results in two areas, student achievement and student growth percentiles. The remainder of this report will provide information on both areas, in two different sections. The first section focuses on performance results, which is how Shrewsbury students performed in terms of achievement scores. The second section concerns student growth. Student growth, which was utilized on a full scale for the first time in Massachusetts in 2010, provides a metric for how students 'grow' in comparison to peers with similar testing histories. Taken together, strengths and goals in both areas provide a snapshot of results for the district as a whole.

I. Student Achievement Scores

MCAS 2.0 achievement levels differ from those used with "legacy" MCAS ratings. The next generation MCAS does not use the *Advanced*, *Proficient*, *Needs Improvement* and *Warning* labels. Instead, the new levels are intended to signal a student's mastery of the subject matter for each particular grade level.

This is an example of what a parent score report looks like. The new levels are represented as a continuum so that a student's achievement level and the score within the level can be clearly understood. This provides parents and teachers with a good sense of a child's strengths and needs within the content areas tested.



In addition, parents receive information about how students scored on each test item as well as by skill area. In this way educators and parents alike can see where a child needs support.

Students in high school will continue to receive “legacy” ratings, so understanding the different level systems is important.



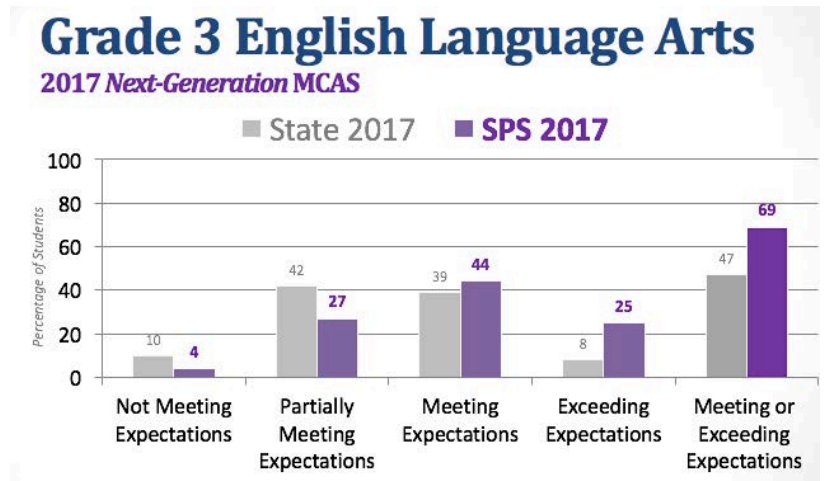
Groups of Massachusetts educators adjusted the scores to match the new purpose of the assessment. Unlike the legacy ratings, which were developed over time, the ratings for the new assessment were calibrated simultaneously. The roughly equivalent proportion of students in each grade and subject area reflect a clear progression of learning expectations from grade to grade and panelists' consistent application of the standards. It's also important to note that the new standards for Meeting Expectations are more rigorous. For this reason, the Department of Education has cautioned against comparing "old" MCAS scores to the new baseline results. ***Simply put, our results for this year serve as a baseline for future comparisons, as well as another source of information about how our students perform in this kind of testing environment.***

This part of the report details our baseline scores by content area and by grade level.

Student Achievement Scores in English Language Arts by Grade Level

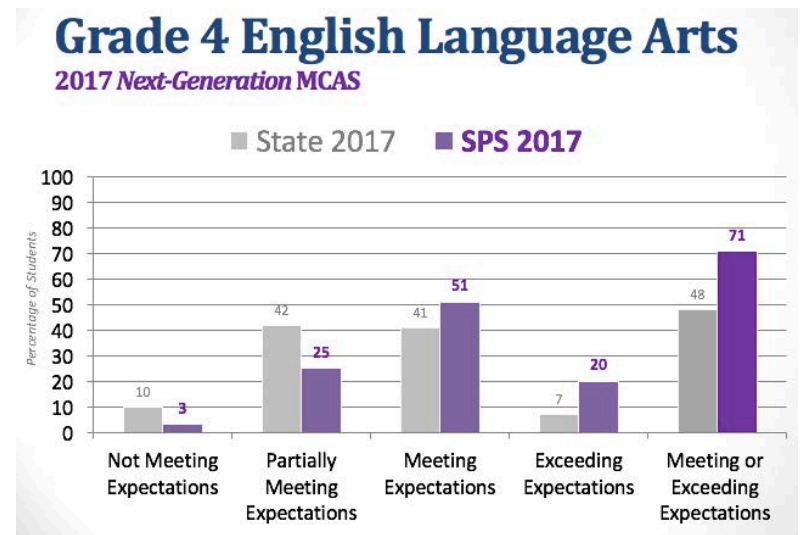
Grade 3

% by level	SPS	State
Exceeding	25	8
Meeting	44	39
Partially Meeting	27	42
Not Meeting	4	10



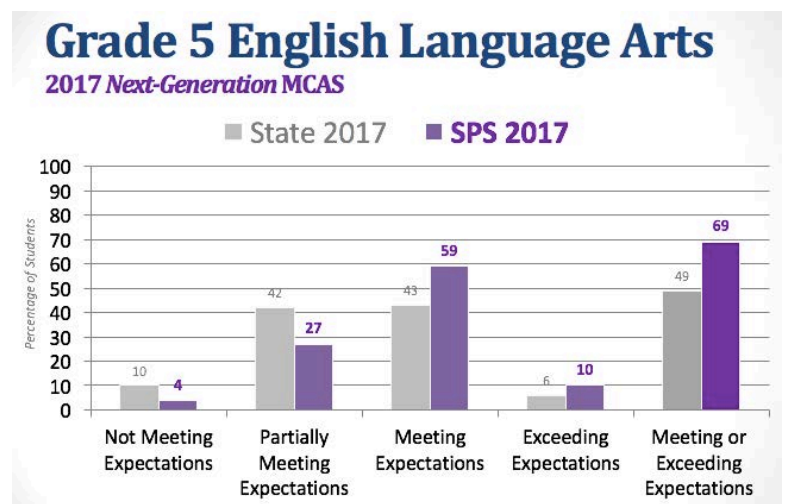
Grade 4

% by level	SPS	State
Exceeding	20	7
Meeting	51	41
Partially Meeting	25	42
Not Meeting	3	10



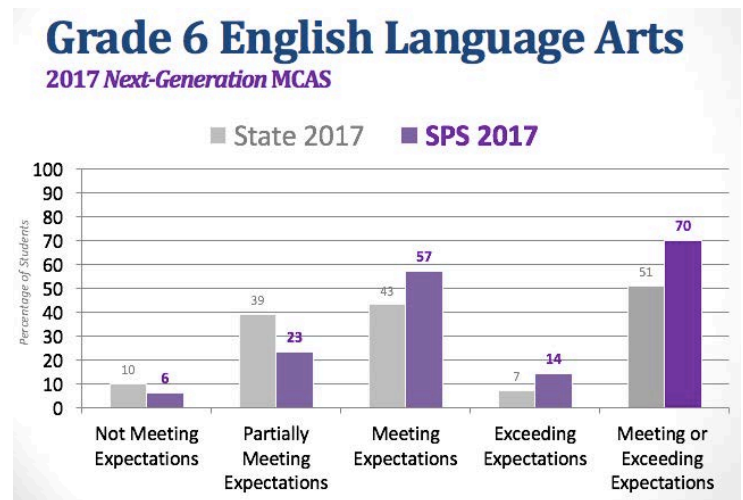
Grade 5

% by level	SPS	State
Exceeding	10	6
Meeting	59	43
Partially Meeting	27	42
Not Meeting	4	10



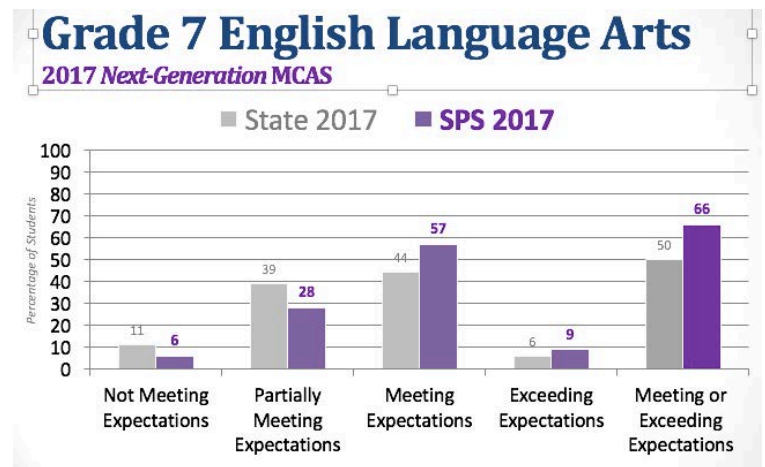
Grade 6

% by level	SPS	State
Exceeding	14	7
Meeting	57	43
Partially Meeting	23	39
Not Meeting	6	10



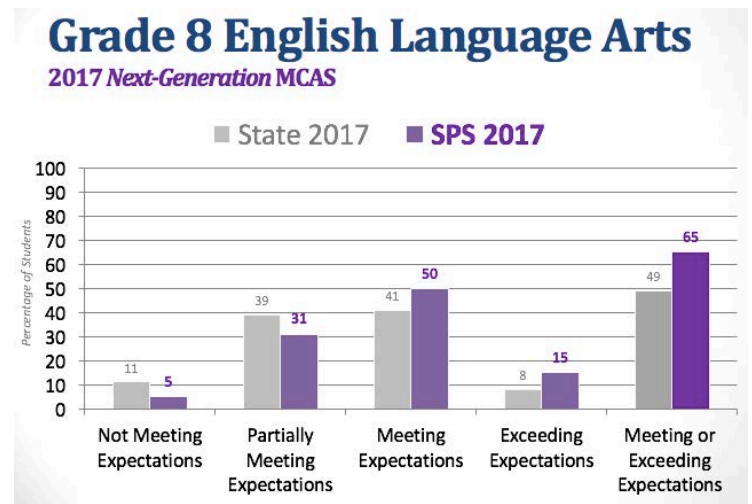
Grade 7

% by level	SPS	State
Exceeding	9	6
Meeting	57	44
Partially Meeting	28	39
Not Meeting	6	11



Grade 8

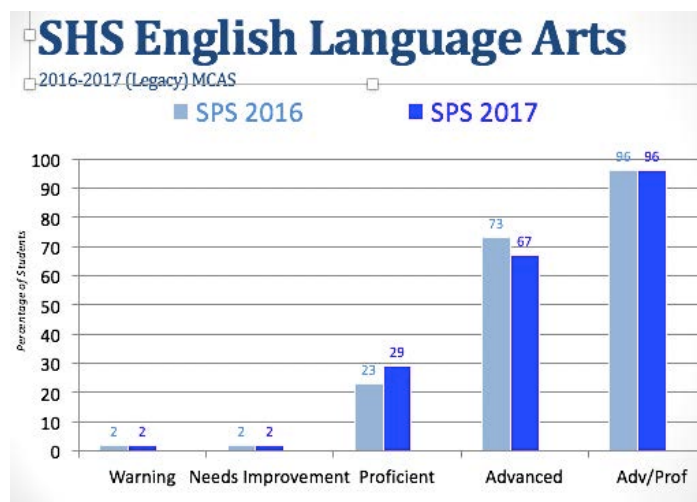
% by level	SPS	State
Exceeding	15	8
Meeting	50	41
Partially Meeting	31	39
Not Meeting	5	11



Grade 10

Achievement rates 2014-2017 for the "legacy" MCAS in English Language Arts

	2014	2015	2016	2017
Advanced	70	74	73	67
Proficient	27	23	23	29
Needs Improvement	2	1	2	2
Failing	1	1	2	2



Grade 10 English Language Arts Scores: Legacy MCAS 5-year history

Year	2013	2014	2015	2016	2017
%	97	97	96	96	96

Percentage of Students Meeting or Exceeding Expectations, ELA 2017

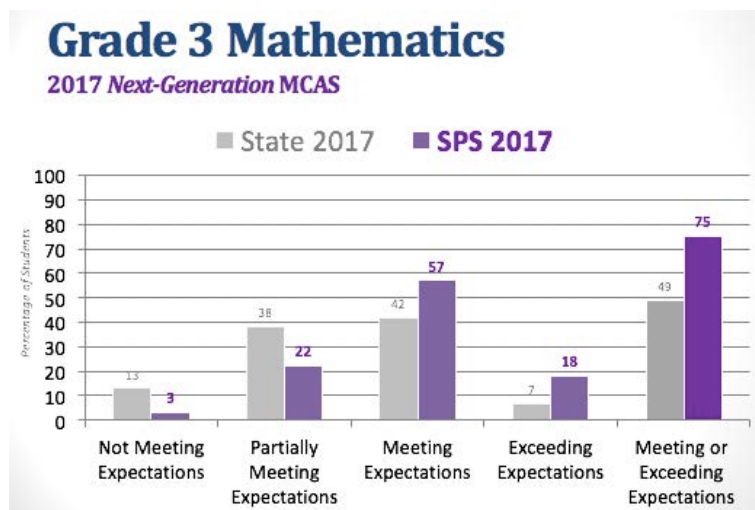
A summary of baseline ELA scores the Meeting / Exceeding range for students in grades 3-8. * Note: Gr 10 results from the "legacy" version

Grade and Subject	Gr 3 ELA	Gr 4 ELA	Gr 5 ELA	Gr 6 ELA	Gr 7 ELA	Gr 8 ELA	Gr. 10
Shrewsbury % Level M/E 2017	69%	71%	69%	70%	66%	65%	96%*
State Results	47%	48%	49%	51%	50%	49%	91%*

Student Achievement Scores in Mathematics by Grade Level

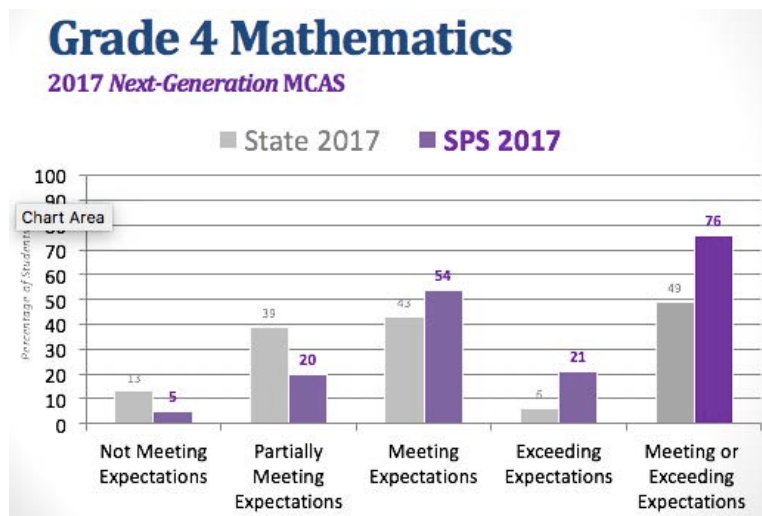
Grade 3

% by level	SPS	State
Exceeding	18	7
Meeting	57	42
Partially Meeting	22	38
Not Meeting	3	13



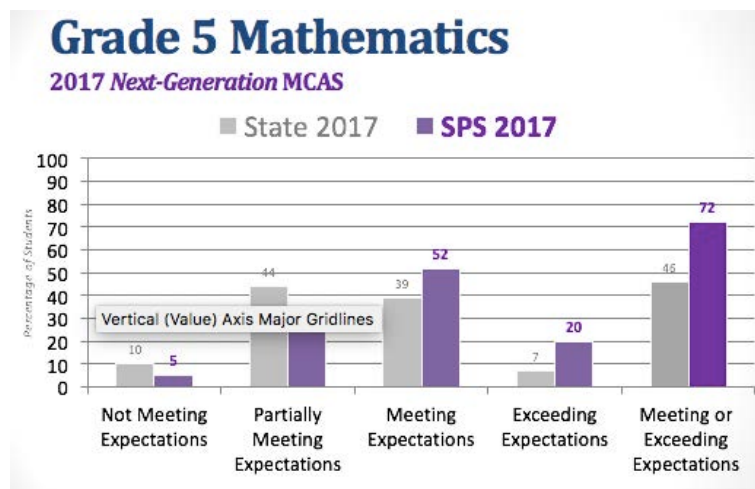
Grade 4

% by level	SPS	State
Exceeding	21	6
Meeting	54	43
Partially Meeting	20	39
Not Meeting	5	13



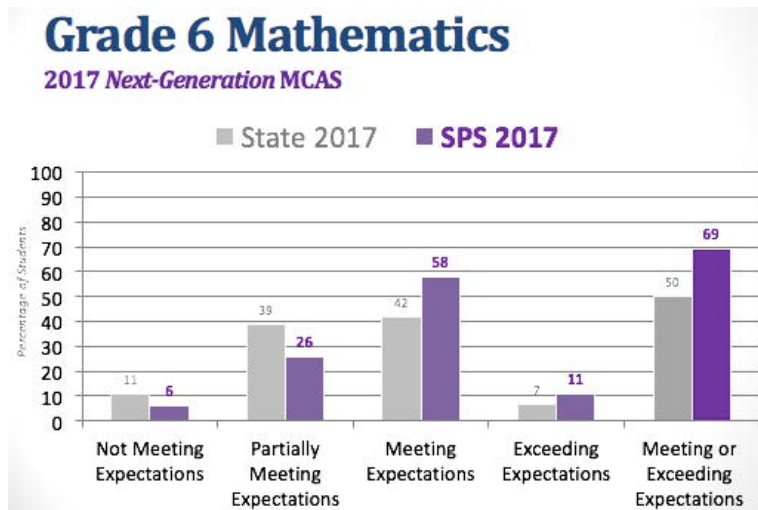
Grade 5

% by level	SPS	State
Exceeding	20	7
Meeting	52	39
Partially Meeting	24	44
Not Meeting	5	10



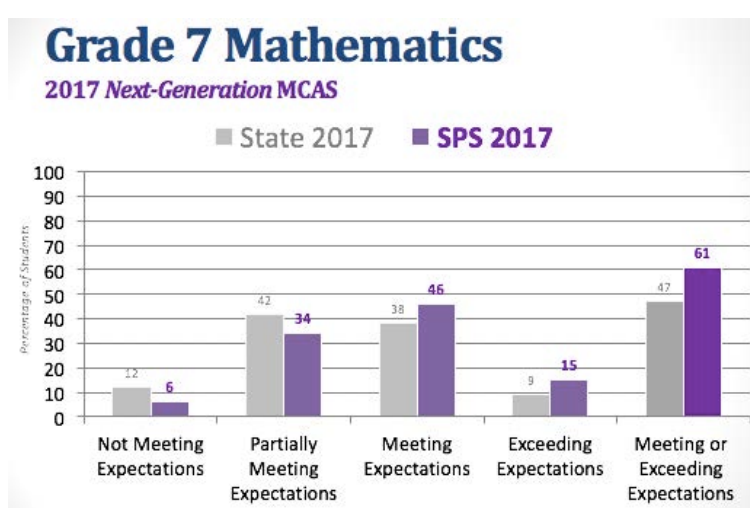
Grade 6

% by level	SPS	State
Exceeding	11	7
Meeting	58	42
Partially Meeting	26	39
Not Meeting	6	11



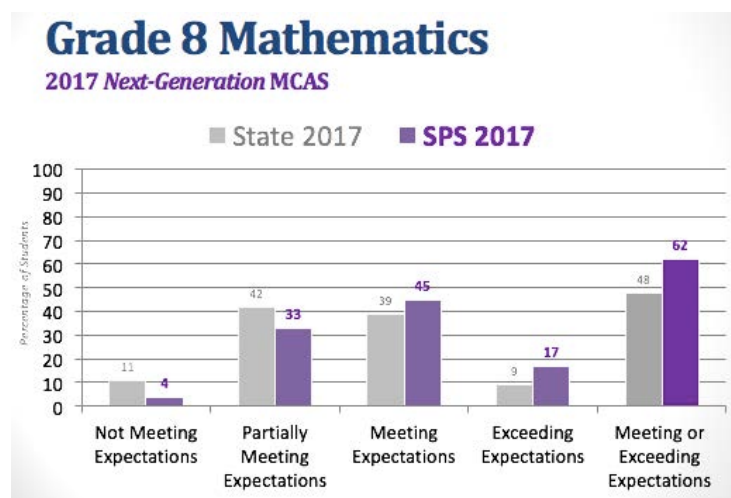
Grade 7

% by level	SPS	State
Exceeding	15	9
Meeting	46	38
Partially Meeting	34	42
Not Meeting	6	12



Grade 8

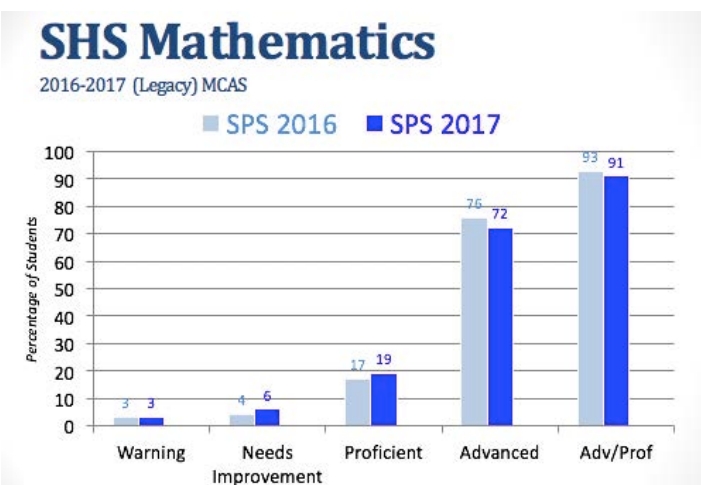
% by level	SPS	State
Exceeding	17	9
Meeting	45	39
Partially Meeting	33	42
Not Meeting	4	11



Grade 10

Achievement rates 2014-2017 for the "legacy" MCAS in Mathematics

	2014	2015	2016	2017
Advanced	81	79	76	72
Proficient	14	13	17	19
Needs Improvement	3	6	4	6
Failing	1	2	3	3



Grade 10 Math Scores: Legacy MCAS 5-year history

Year	2013	2014	2015	2016	2017
%	93	95	92	93	91

Percentage of Students Meeting or Exceeding Expectations, Math 2017

A summary of baseline Math scores the Meeting / Exceeding range for students in grades 3-8. * Note: Gr 10 results from the "legacy" version

Grade and Subject	Gr 3 Math	Gr 4 Math	Gr 5 Math	Gr 6 Math	Gr 7 Math	Gr 8 Math	Gr. 10
Shrewsbury % Level M/E 2017	75%	76%	72%	69%	61%	62%	91%*
State Results	49%	49%	46%	50%	47%	48%	79%*

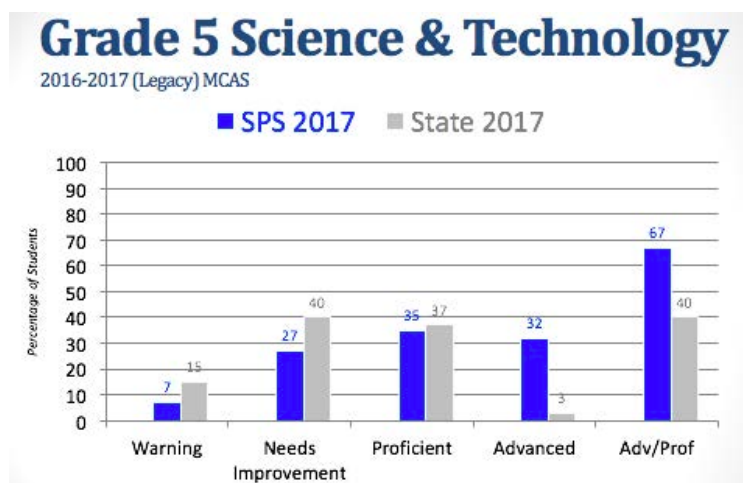
Student Achievement Scores in Science & Technology Grades 5, 8, & 10

Students in three grades took the Science Technology and Engineering test in 2017. It's important to note that these assessments are "legacy" tests.

Assessment levels generally indicate how each student is achieving relative to the state standards for that grade level. Here is a snapshot of how our students performed over time by grade:

Grade 5

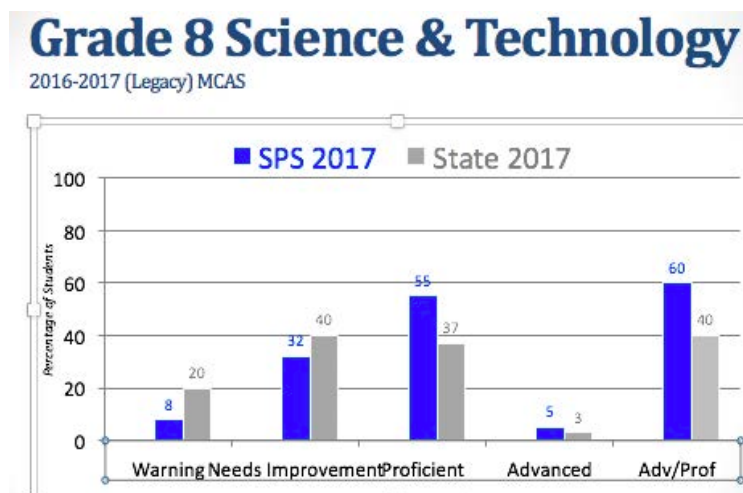
	2014	2015	2016	2017
Advanced	31	31	34	32
Proficient	41	40	36	35
Needs Improvement	23	25	24	27
Failing	4	4	7	7



Results in Grade 5 were very similar to past years, with a slight decrease in the percentage of students in the Advanced and Proficient levels and a slight increase in the number of students scoring a Needs Improvement.

Grade 8

	2014	2015	2016	2017
Advanced	14	9	12	5
Proficient	55	53	47	55
Needs Improvement	26	33	33	32
Failing	5	6	8	8

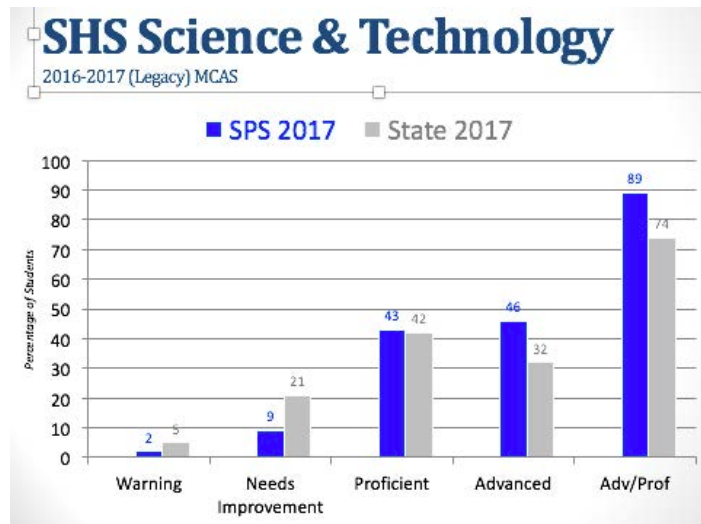


There was a slight increase in the percentage of students in the Advanced and Proficient levels this year,

although with a reduction in the portion of students scoring Advanced. Note that historically the Grade 8 Science & Technology test has been historically the most challenging test in all of the legacy MCAS tests in terms of percentages of students scoring at high levels across the state, so while it is appropriate to compare performance of 8th graders over time, it is not valid to compare performance on this test against how students fare on the Grade 5 or High School Science & Technology tests.

Grade 10

	2014	2015	2016	2017
<i>Advanced</i>	50	46	54	46
<i>Proficient</i>	39	40	36	43
<i>Needs Improvement</i>	10	12	8	9
<i>Failing</i>	1	1	2	2



Our student scores for Science and Technology exam compare favorably with districts of similar size, demographics and enrollment. Overall our oldest students post the highest scores. However, as mentioned above, because the “legacy” tests were created and calibrated at different times by different groups, the progression of expectations from one grade to another is not well aligned.

In Shrewsbury the timing of content delivery also has an impact on student performance. For example, our fifth grade students are tested cumulatively on content that is taught in earlier grades, especially fourth grade. Our current work in Science should help us to align our curriculum to the new Science standards. It’s likely that the state assessment for this content area will also change in future.

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 either one year prior or two years prior to the next. By utilizing a growth model system, 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 rate of change is expressed as a percentile that represents how many students had greater or lesser improvement on this year's test vs. previous tests.

The state defines *moderate* (or expected) growth to be between the 40-60 percentile, with *low* growth as below the 40th percentile and *high* growth as 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 more than 65 percent of her academic peers with the same score history, then her Student Growth Percentile (SGP) would be 65.

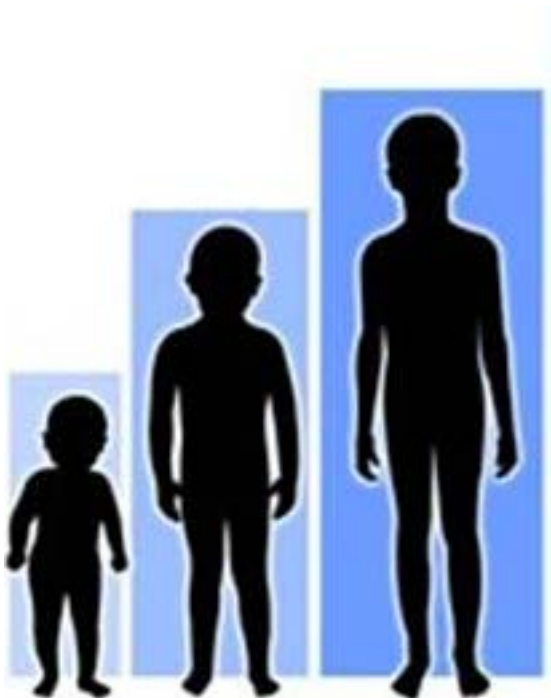
The growth model method operates independently of MCAS performance levels. As a result, all students, no matter what their scores were on past MCAS tests, have an equal chance to demonstrate growth at any of the 99 percentiles on the next year's test. Growth percentiles are calculated in ELA and Mathematics for students in Grades 4 through 8 and 10. The state's growth model requires at least two years of MCAS results to calculate growth percentiles. Therefore, no growth scores are available for Grade 3; Grade 4 growth percentiles are only in comparison to Grade 3 scores; and Grade 5 and up are in comparison to the two previous years of scores. In addition, 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.

This measure of student test scoring over time provides us with additional information; this data helps us monitor individual students and subgroups within the district. Importantly, it may also us identify "bright spots", 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.

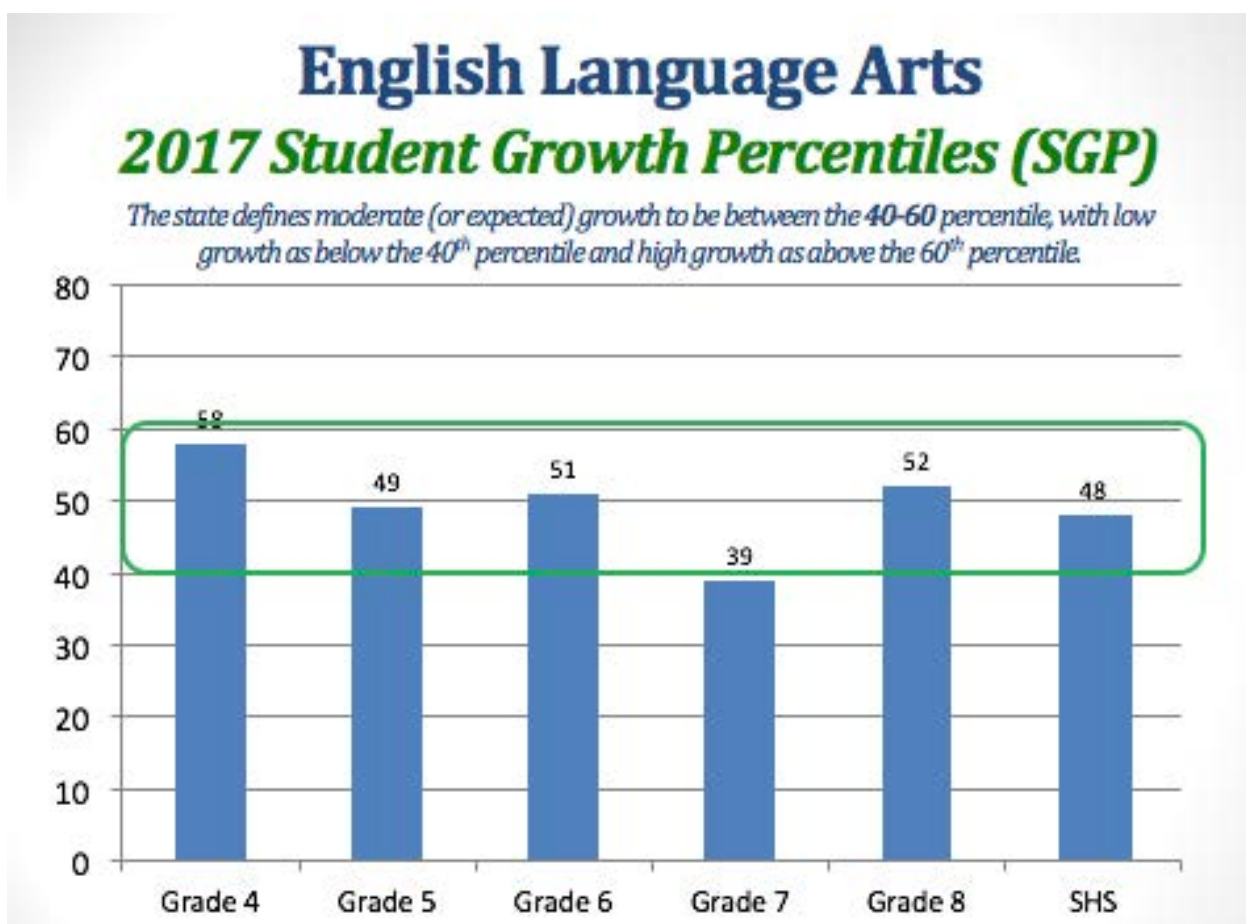
The most effective way to report growth for a group is through the use of the median student growth percentile (the middle score if one ranks the individual student growth percentiles from highest to lowest). A typical school or district in the commonwealth would have a median student growth percentile of 50.



Shrewsbury Public Schools Median SGP by Grade:

English Language Arts 2012-2017

ELA	2012	2013	2014	2015	2016	2017
Gr 4	83	77	65	69	53	58
Gr 5	49	42	45	37	46	49
Gr 6	63	56	50	46	46	51
Gr 7	50	47	42	37	34	39
Gr 8	50	48	51	50	45	52
Gr 10	58	60	54	53	46	48

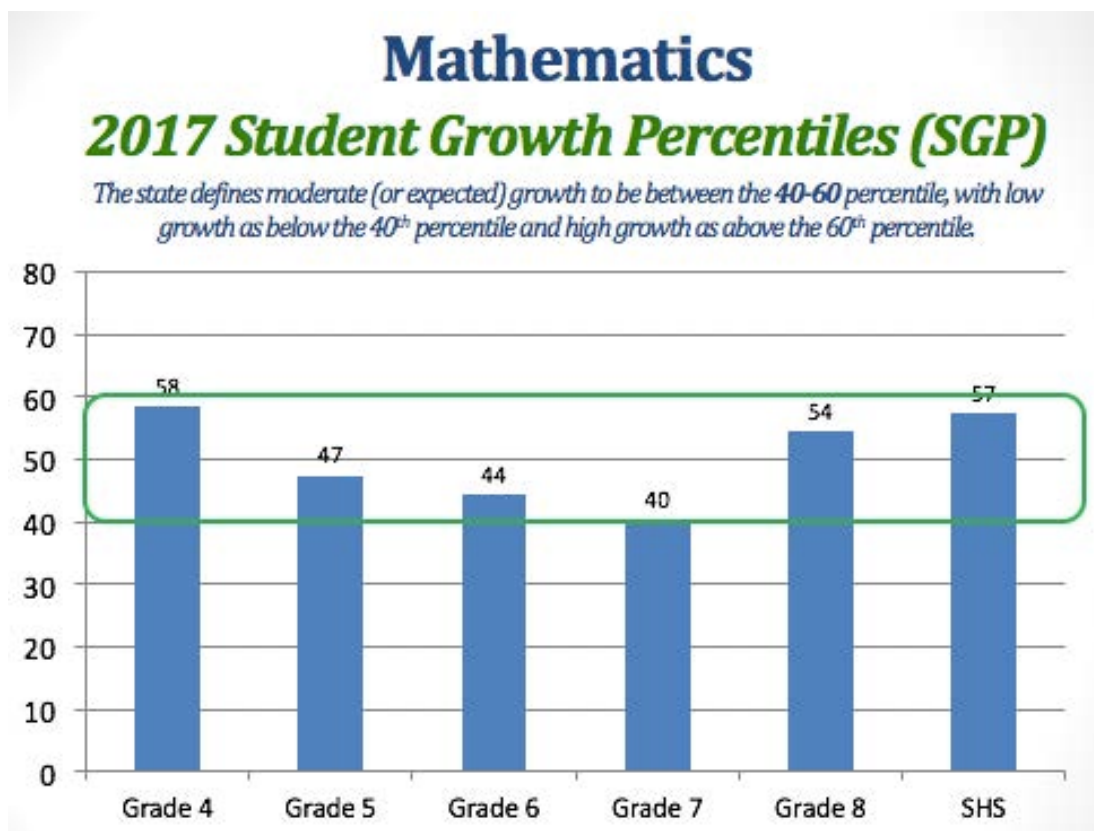


Although there are areas to target for improvement in achievement levels at several grade levels, the growth percentiles for each grade level were all in the moderate (or expected) growth range except in one instance, just one point below.

Shrewsbury Public Schools Median SGP by Grade: 2012-2017

Mathematics 2013-2017

Math	2012	2013	2014	2015	2016	2017
Gr 4	69	58	67	65	59	58
Gr 5	46	42	45	44	41	47
Gr 6	67	57	54	38	38	44
Gr 7	56	42	36	30	38	40
Gr 8	53	61	45	39	50	54
Gr 10	54	55	62	53	58	57

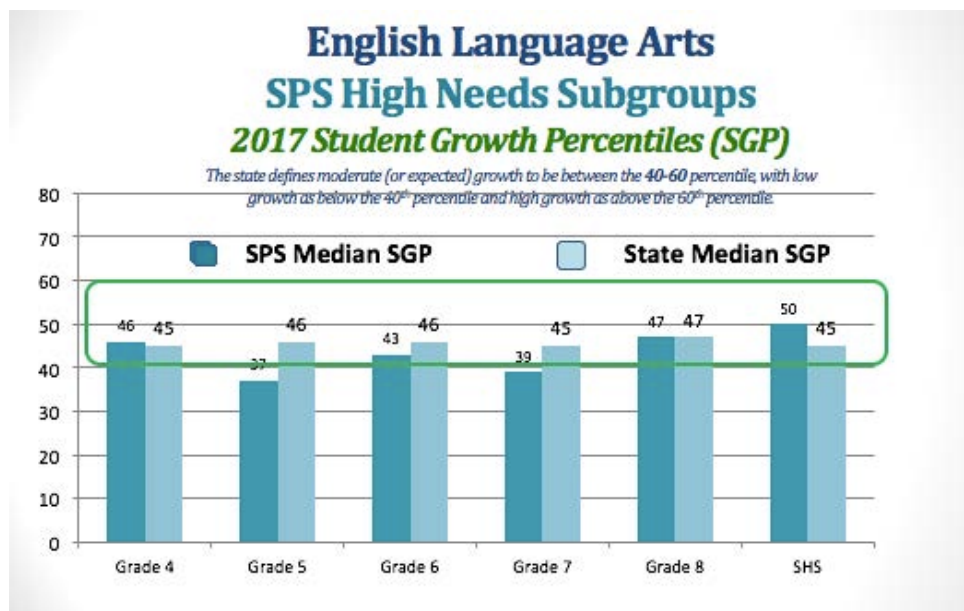


Again, growth percentile scores are expected to fall within 40-60. Note the relative higher rate of growth in grades 4, 8 and 10.

District Subgroup Performance

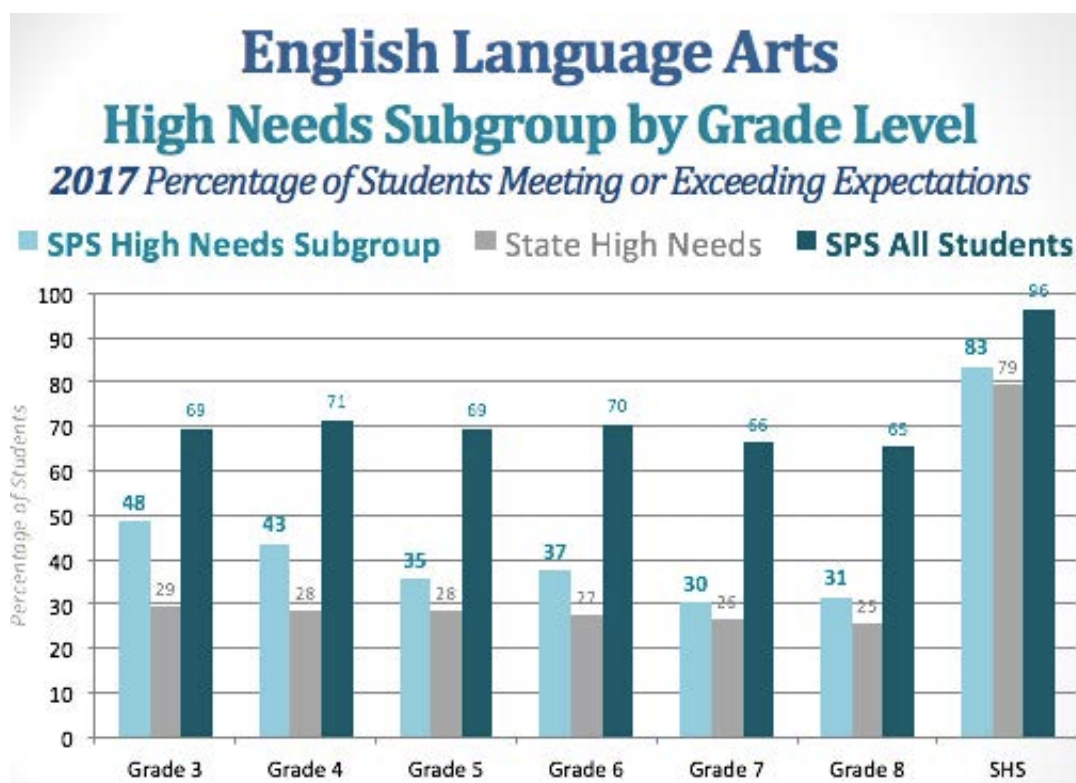
Another important way we demonstrate our commitment to student growth is by monitoring groups of children. These cohorts are called 'subgroups'. Comparing their results to aggregate data helps educators to identify and close achievement gaps.

MCAS ELA Grades 3-8 2017

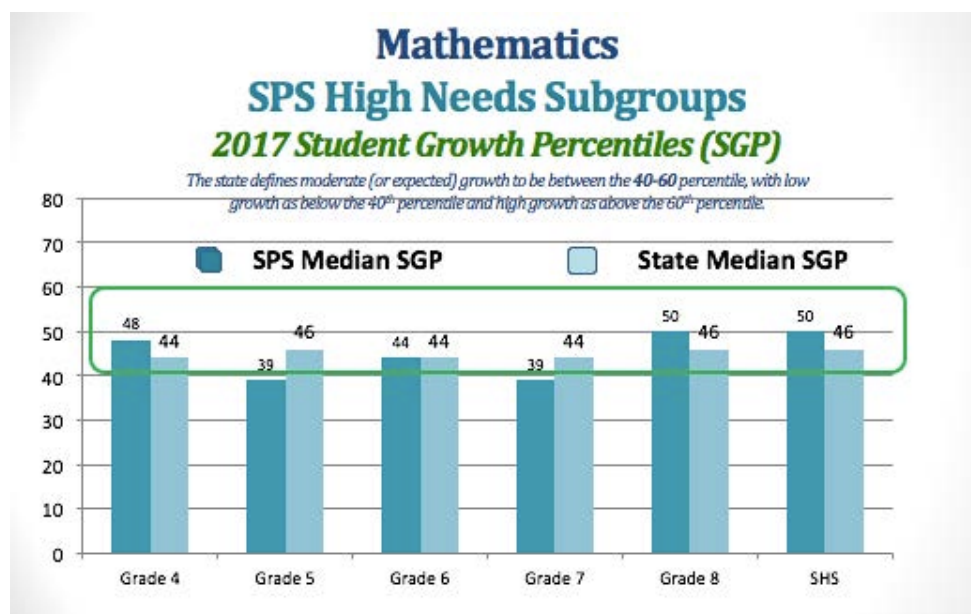


Staff look closely at the achievement gap between the high needs subgroup and the "all students" group. While our overall SGP scores consistently outperform the state, there is still progress to be made in closing gaps for students with special needs. The chart

above shows that SPS students in the high need subgroup are not growing in English Language Arts at several levels as much as we'd like. The resulting achievement gap is depicted well below.

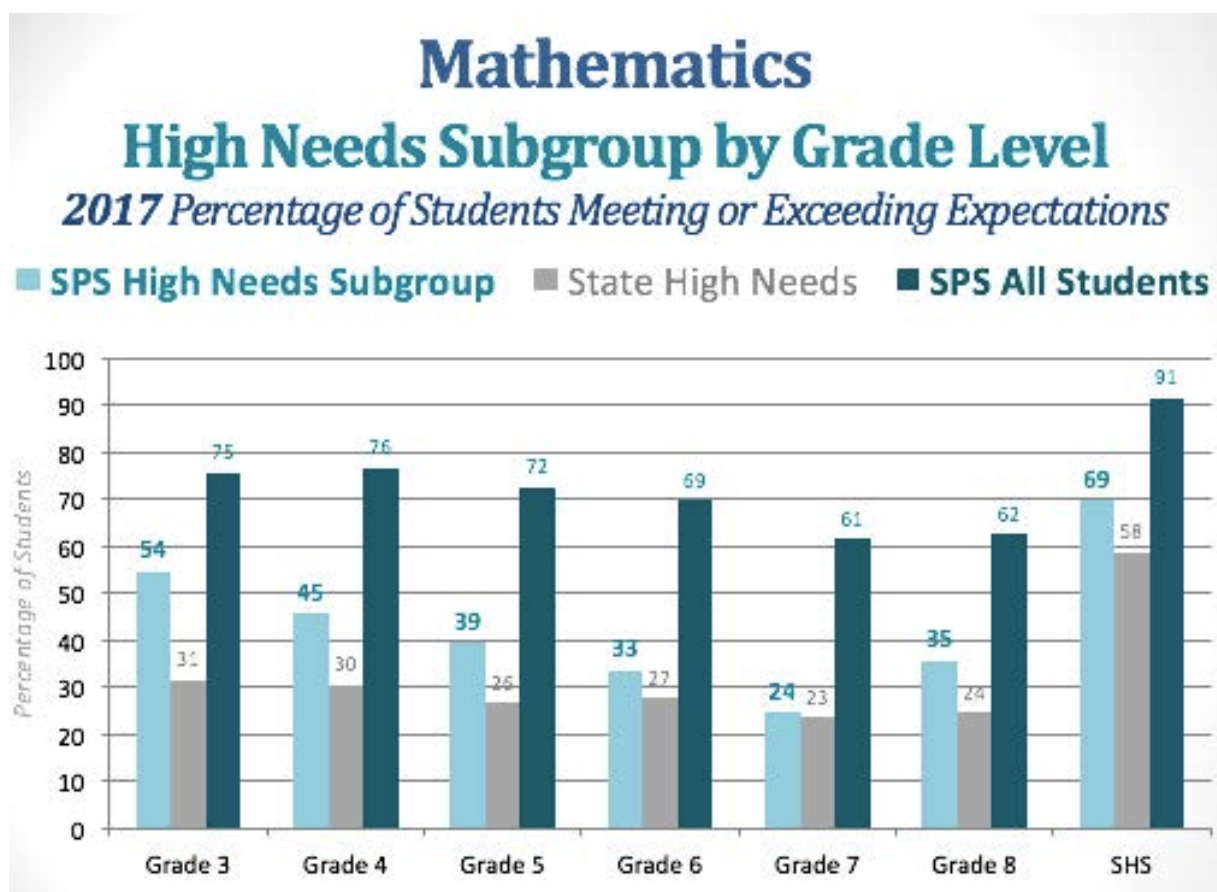


MCAS Math Grades 3-8 2017



Students in the high needs subgroup faced similar achievement challenges in Mathematics. For these students, a higher growth percentile is critical to their ability to “catch up” to their peers.

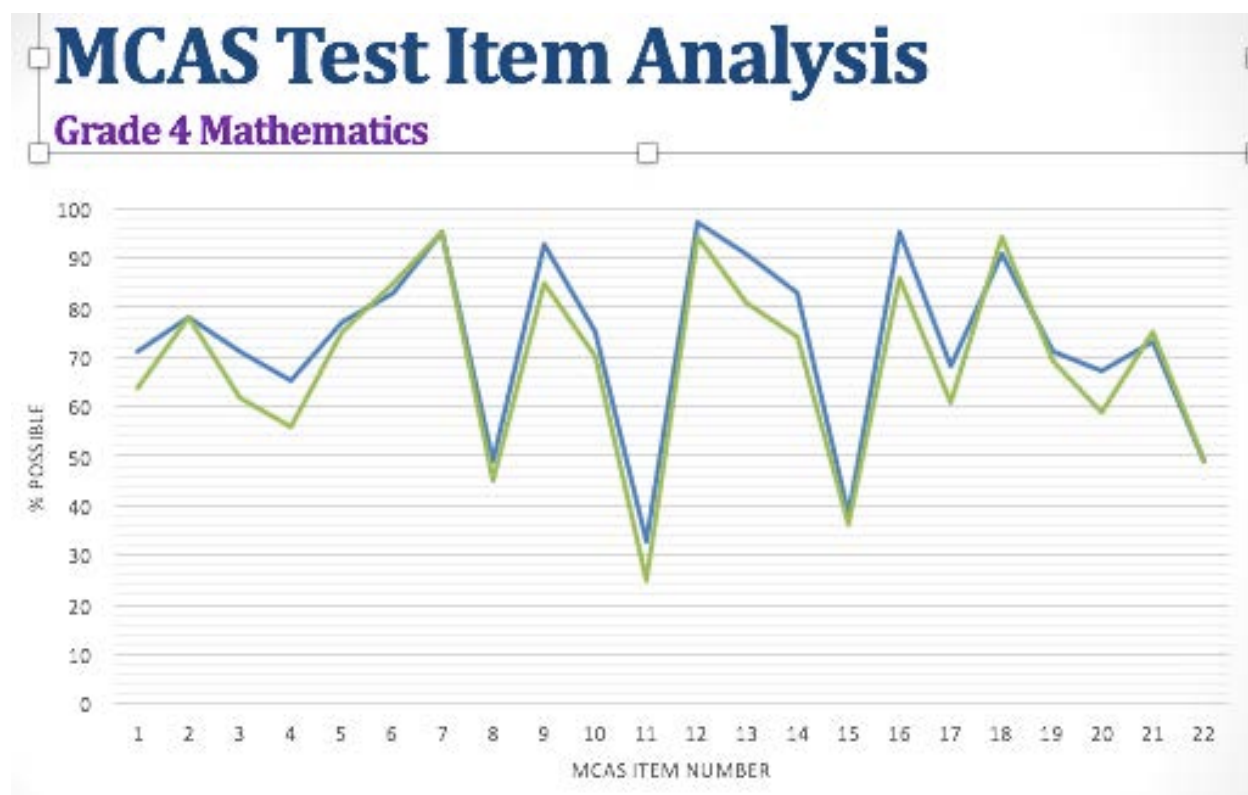
While there is still obvious improvement to make in achievement levels for the high needs subgroups, the growth percentiles in several grade levels in Math are promising.



Item Analysis

Staff analyze MCAS data from the DESE portal to review student performance, identify strengths and weaknesses in specific standards, and also examine released questions to determine how students need to specifically apply their understanding of concepts. 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: <http://profiles.doe.mass.edu/mcas/mcascharts2.aspx?linkid=33&orgcode=02710000&frcode=2017&orgtypecode=5&>

Scrutinizing student results by question helps educators to align their practice with the expectations inherent in the assessment. The chart below depicts an item analysis. Looking at the results in this way allows teacher teams to visually spot areas of instruction to target for reteaching.



An example of the ongoing analysis . . . This graph depicting scores by question for two different schools indicates strong correlation between test items. It also seems to indicate that curriculum implementation and staff collaboration are working consistently.

Looking Forward

With the release of new state Science standards, a K-12 committee was formed to review the Shrewsbury science curriculum and to prepare for the changes in content. Work is underway at both the Elementary and Middle levels to help educators adjust to changes in content and practice. This will be a multiyear endeavor, with potential implications for state assessment results.

Most importantly, we are still learning about the MCAS 2.0 assessment system. The wealth of information about student performance is important and helpful. Translating data into meaningful, timely outcomes for students requires ongoing commitment on the part of administrators and teams of educators alike. As the district builds capacity for data analysis we are confident that our teaching staff will be better able to assess, intervene and support students and their families with the areas of challenge that are identified in student performance data.

In many ways, the steps ahead will be similar to our initial progress in 1998 when the MCAS was new. While there are many differences among communities, districts are very collaborative in this work and Shrewsbury is no exception. We look forward to working with colleagues, as Massachusetts takes strides to continue leading the nation in education. As we respond to this data, securing resources for teacher leadership, curriculum development and data analysis will be important supports to include in our strategic planning.



Paton School fourth-graders (l to r) Lawson Mitchell, Caroline Strickland and Owen Wang show Jim DuPont (left) and Dr. Joseph Sawyer how they use their iPads.





**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **VI. Policy**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

ACTION RECOMMENDED:

COMMITTEE MEMBERS/STAFF AVAILABLE FOR PRESENTATION:



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **VII. Finance & Operations**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

ACTION RECOMMENDED:

STAFF AVAILABLE FOR PRESENTATION:



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **VIII. Old Business**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

ACTION RECOMMENDED:

MEMBERS/STAFF AVAILABLE FOR PRESENTATION:



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **IX. New Business**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

ACTION RECOMMENDED:

STAFF AVAILABLE FOR PRESENTATION:



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **X. Approval of Minutes**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

The minutes are enclosed.

ACTION RECOMMENDED:

That the Committee vote to approve the minutes from the School Committee meeting held on November 29, 2017.

STAFF AVAILABLE FOR PRESENTATION:

Dr. B. Dale Magee, Chairperson

Ms. Sandra Fryc, Secretary

**SHREWSBURY PUBLIC SCHOOLS
100 MAPLE AVENUE
SHREWSBURY, MASSACHUSETTS**

MINUTES OF SCHOOL COMMITTEE MEETING

Wednesday, November 29, 2017

Present: Dr. Dale Magee, Chairperson; Mr. Jon Wensky, Vice Chairperson; Ms. Sandy Fryc, Secretary; Ms. Erin Canzano; Mr. Jason Palitsch; Mr. Patrick Collins, Assistant Superintendent for Finance and Operations; Ms. Amy B. Clouter, Assistant Superintendent for Curriculum & Instruction; Ms. Barb Malone, Director of Human Resources; and Dr. Joseph Sawyer, Superintendent of Schools.

A complete audio/visual recording of this meeting is available on the Shrewsbury Public Schools website.

The meeting was convened by Dr. Magee at 7:02 pm.

I. Public Participation

None.

II. Chairperson's Report & Members' Reports

Mr. Wensky thanked parents for their attendance and support at ongoing PTO meetings held at schools throughout the district.

III. Superintendent's Report

Dr. Sawyer provided a brief update on the Beal Building Project, noting there are complications around conservation zoning with one of the three sites being considered - Camp Winnegan - so there will be increased focus on the Allen Farm and Glavin Center properties; advised that the SPS Colonial Fund enjoyed a very successful #GivingTuesday; and noted the Shrewsbury High School (SHS) Performing Arts Department is celebrating its 50th musical this year and kicking off the timeline with an event from former SHS alum Catherine Brunell, who will be coming back to Shrewsbury for a one night cabaret event at SHS on Saturday, December 16.

IV. Time Scheduled Appointments:

A. District Goals 2015-2017: Report

In April 2015, the School Committee unanimously approved two-year district goals, and this past spring results on some of these goals were included in the reports to the School Committee on

the five-year strategic priorities. Ms. Clouter's presentation detailed progress on student goals relative to Writing and Math, and explained that the data collection for the goals in these areas was different than originally planned due to a variety of factors, including the shifting state expectations and decisions at different grade spans to shift assessments to better measure what was most important relative to student learning in those subjects. She noted the importance of utilizing common assessments, and added that initially growth was measured within a given year (not year to year). Ms. Clouter described the different areas of focus at the elementary, middle, and high school levels for Writing. For Math, Ms. Clouter noted the importance of finding exemplars at different student levels, and noted that collaboration among teachers was somewhat more challenging at the high school level because of the lack of common planning time.

Committee members commended teachers for calibrating as needed as things progressed, and asked clarifying questions about measurability and any additional resources that might be needed going forward.

B. Strategic Planning: Report on Potential Priorities

Ms. Clouter, Ms. Margaret Belsito, Director of Special Education & Pupil Personnel Services, and Dr. Jane O. Lizotte, Principal, Sherwood Middle School, provided a report on three areas identified as important to determining district priorities for the next five years based on feedback from public forums and surveys: 21st century skills, inclusive schools, and social and emotional learning (SEL).

Dr. Lizotte described the five core competencies of SEL and noted the link between strong student-teacher relationships and students' social emotional and academic outcomes. She presented a video featuring grade 1-12 students talking with her about different ways teachers help them in areas ranging from meeting friends to managing schoolwork, and detailed the type of assessment of current practices that is needed now. Ms. Clouter discussed engaging and challenging students, especially as it relates to preparing our graduates for success in the future. She addressed building proficiency in students (communication skills, problem solving, collaboration, resilience, leveraging technology) and staff (professional development, project-based learning, leadership training). Ms. Clouter noted the importance of schools and staff providing non-academic support and activities to students who need additional academic help, and showed a video clip called "Building a Vision Together" that featured a student with Down Syndrome from Colorado named Megan Bomgaars who challenges educators by exhorting them "Don't limit me!" Ms. Belsito addressed inclusive schools by detailing the continuum of supports currently in place at SPS, defining "inclusive schools", showing a video illustrating inclusive practices at the Walter J. Paton School and SHS, and describing how the district can build a vision for the future that results in effective inclusive schools in Shrewsbury.

Committee members noted the importance of all three areas, especially as they relate to the embedded nature of resilience, problem solving skills, habits of mind, individualized education for all students, and mitigating anxiety. Mr. Palitsch noted that to facilitate these priorities it would be necessary to operationalize with staff and resources. Dr. Magee expressed concern about overloading students and staff who are already overloaded and asked about looking to

other districts working on this for guidance. Dr. Lizotte advised that SPS does pull from other districts and organizations, will work to create systems that work for individual school communities, and acknowledged that measurement of SEL would be the most challenging aspect of the work. Dr. Sawyer added that Shrewsbury was one of about 38 districts who applied for a cohort of 8 school systems working on SEL, and while SPS was not selected, he noted SEL is a key priority at the state level due to student anxiety and depression. Finally, he noted that recommendations for strategic priorities for the next five years would be presented at the School Committee meeting on December 6, 2017.

V. Curriculum

None.

VI. Policy

None.

VII. Finance & Operations

A. Fiscal Year 2018 Staffing Levels: Report

Ms. Barbara Malone, Director of Human Resources, provided a report on staffing levels for FY 18 effective October 1, 2017, which included a chart indicating the utilization of staff by position, department, and school level. She added that two staffing reports are generated - the Department of Elementary and Secondary Education (DESE) report, and the SPS staffing report (which is based on payroll records).

Ms. Malone noted that overall actual 831.25 Full Time Equivalent (FTE) positions represented +6.94 FTE over the projected 824.31, then broke down staffing by categories: Administration, Instructional Classroom, Instructional Specialist, Instructional Support, and Classified. She described anticipated needs relative new students (moving in/aging in), special education students, and human resources (to address work volume and state reporting).

B. Enrollment Projections: Report

Mr. Patrick C. Collins, Assistant Superintendent for Finance and Operations, noted that the enrollment projections report was done annually for capital planning purposes and near-term class size and staff planning. He noted two projection methods were used - Town Manager's (which does not include preschool) and New England School Development Council (NESDEC). Comparing the two for K-12 enrollments, NESDEC projected modest continued growth at one and five-year marks while the ten-year interval showed a small decline, and the Town Manager projection indicated a very small decline at the five and ten year intervals. Mr. Collins went on to show projections segmented by grade span and historical data for both methodologies; provide initial 2018-19 projections at the elementary and secondary levels; and show projected versus actual numbers for 2017-18. He expects that 2018-2019 will see continued enrollment growth, SHS will be at all time high enrollment of approximately 1,863 students, additional teaching staff

will not likely be needed for Kindergarten-Grade 8, and full-day kindergarten seats will need be reduced to accommodate increased kindergarten enrollment of approximately 40-45 students.

Committee members noted that both projections are historical and don't capture growth in housing stock, that grades K - 12 don't exhibit the same pattern of regular growth that preschool does due to students aging in for special education services, and that the Beal Building Project enrollment projection methodology does incorporate housing projections in the pipeline and migration factors. Dr. Sawyer advised that month-to-month enrollment numbers do not change dramatically, and that enrollment is not expected to get smaller, especially in the short term.

VIII. Old Business

None.

IX. New Business

None.

X. Approval of Minutes

Without objections from the Committee, the minutes of the School Committee meeting on November 15, 2017 were accepted as distributed.

XI. Executive Session

None.

XII. Adjournment

On a motion by Mr. Palitsch, seconded by Mr. Wensky, the committee unanimously agreed to adjourn the meeting at 8:52 pm.

Respectfully submitted,

Elizabeth McCollum, Clerk

Documents referenced:

1. Staffing Report Presentation Slides
2. Staffing Report Memo
3. Staffing Report Spreadsheet
4. Set(s) of Minutes as Referenced Above
5. Enrollment Projection Report

6. Enrollment Projection Slides
7. NESDEC Enrollment Projection
8. Town Manager's Enrollment Projection
9. District Goals Report
10. District Goals Slides
11. Strategic Planning Priorities Report
12. Strategic Planning Priorities Slides



**SHREWSBURY PUBLIC SCHOOLS
SCHOOL COMMITTEE MEETING**

ITEM NO: **XI. Executive Session**

MEETING DATE: **12/6/17**

BACKGROUND INFORMATION:

ACTION RECOMMENDED:

STAFF AVAILABLE FOR PRESENTATION:

ITEM NO: **XII. Adjournment**