

Shrewsbury High School Testing Report

Class of 2019



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Shrewsbury High School Testing Report Class of 2019

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Summary Statements

College Board Testing Administration and Score Reporting Changes

In the past three years, the College Board has made significant changes to the format of the SAT test and the reporting of test results. These changes include:

- Revising the SAT test to include Evidence Based Reading and Writing (EBRW) and Math.
- A separate score for Writing has been eliminated. As a result the combined score is now 1600 (EBRW and Math) and no longer 2400.
- Historically, the mean scores reported to DESE has been a cohort group of a particular graduating class. This year, the mean scores reported to DESE include test takers for an academic year without identifying student grade levels. As a result, scores for the cohort Class of 2019 for local districts are not available.
- SAT Subject tests are no longer reported as part of the cohort Class of 2019 profile. Individual student results as reported by the College Board were used to calculate the mean scores for the Class of 2019. In addition, the state and national mean scores for subject tests are not available for the graduation year cohorts. Instead, the College Board has changed the reporting of the national mean scores for subject tests to include the graduating classes of the past three years combined.

Redesigned SAT:

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Average Scores—1600 scale (Figures 1)

- The reporting of the redesigned SAT is in its third 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 score of 1213 remains well above the state and national averages of 1120 and 1059, respectively.

Page 6-7

SAT: Individual Critical Reading, and Math scores & Participation Rate

- On each individual section, Shrewsbury's scores are:
 - Evidenced Based Reading & Writing = 596. **(Figure 2)**
 - Math = 617. **(Figure 3)**
- The SAT participation rate for the Class of 2018 is 91%. **(Figure 4)**

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SAT: Critical Reading, Math scores by Gender (Figure 5)

- In the Evidence Based Reading & Writing and Math scores, Shrewsbury females and males scored higher than the state and national trends.
- Shrewsbury females scored higher than males scored on the Evidence Based Reading & Writing section of the SAT (F/M – 602/586) similar to the national (F/M – 534/529) while unlike the state (F/M – 559/561) trend. Shrewsbury females scored lower than males (F/M – 611/624) in the Math section also similar to state (F/M – 549/574) and national (F/M – 519/537) trends.
 - Evidence Based Reading & Writing (F – 602; M – 586)
 - Math (F – 611; M – 624)

Local School Districts: SAT Mean Scores and Participation

- Due to the recent changes in the College Board's SAT test, the College Board has changed their score delivery and reporting. The SAT is reported as a school year mean score without identifying specific grade level. Therefore, cohort scores are no longer reported to the state making the mean score and participation rates unavailable.

Shrewsbury High School One-Year and Five-Year Comparisons

- As result of the redesigned test, the 2019 SAT test scores cannot be accurately compared to prior SAT scores.

Subject Test Scores:

Summary of SAT Subject Tests (Figures 6 – 13)

- Due to changes in score reporting, the College Board is no longer reporting the State and National mean scores for graduating year cohort groups. At this time, only mean scores over a period of test years are reported. As a result, we are not able to compare graduation year cohort groups with state and national mean scores. Individual Subject Test scores are summarized over the next several pages.
- Students taking the Biology Subject Test (p.11) have an option to take the test with an emphasis on Molecular Biology or Ecological Biology.
- When compared to the prior year, students scored higher in three out of the eight subject tests, (Literature, Math I, Physics). In five subject tests, students scored lower than the prior year (U.S. History, Math II, Biology - Ecological, Biology – Molecular, Chemistry and Physics).

ACT:

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 426 students in the Class of 2019, 113 students (27%) took the ACT. This is a decrease of 7% compared to last year.
- The average ACT score for Shrewsbury's Class of 2019 is 26.8 (based on a scale of 1 – 36). This score is equivalent to about 1270 on the SATs.

Advanced Placement Exams:

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, 69% of all AP Exams were taken by juniors and seniors.

- Of all students taking AP Exams nationally, 21.3% of students take three or more exams; in the class of 2019, 57% of Shrewsbury students take three or more exams.

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Participation Rates (Figure 17)

- The number of exams administered has increased by 119 exams to a total of 884 exams. The number of students taking AP exams increased by thirty-two students.
- The number of Seniors that took AP exams is 224.
- The number of Juniors that took an AP exam is 182.
- The number of sophomores that took an AP exam is 9.
- The number of freshmen that took an AP exam is 1.
- **Fifty-five percent (55%) of the students in the Class of 2019 took at least one AP exam during their high school years.**

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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 fifteen AP courses at Shrewsbury had an average score above 3.6—and nine out of fifteen had an average score of 4.0 and above. All scores were above the state and national averages.

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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 2019 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 20-21

Exam Results—Shrewsbury High School

- The percentage of students in the Class of 2019 scoring 3 or above is 92%.
- Thirteen out of fifteen 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)**

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Scholars

- The total number of AP scholars in 2019 is 172.
- One hundred twenty-one of the 232 seniors (52%), who took AP exams were named AP Scholars or above. Five 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 22-23

National Merit Scholarship Program

- Four students from the Class of 2019 were named a National Merit Finalists and one student was a Scholarship Recipient.

Final Comments

Page 23-24

Final Overview of the 2018–2019 School Year

Scores for the Redesigned SAT begin with the 2017 year in the following 3 charts.

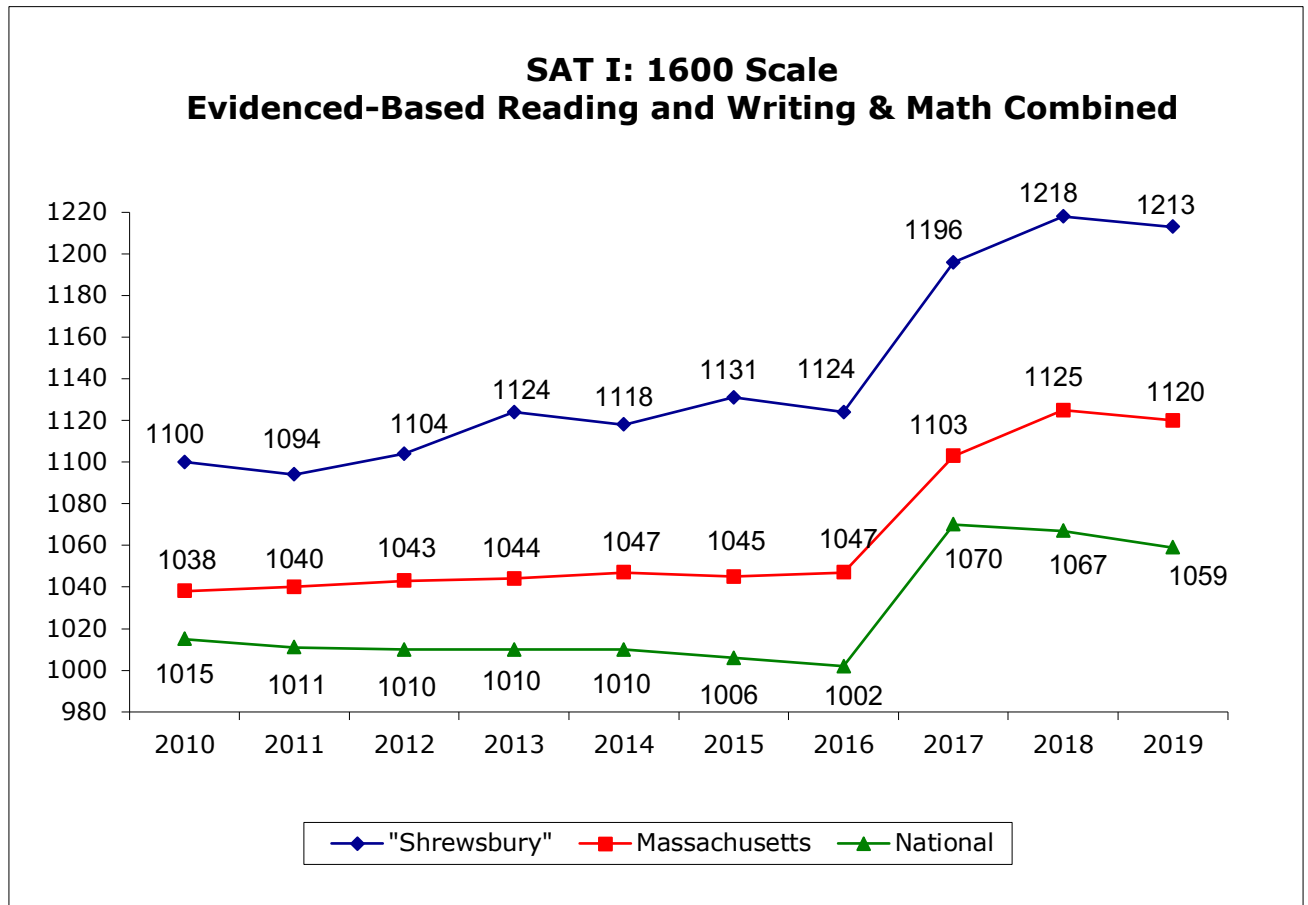


Figure 1

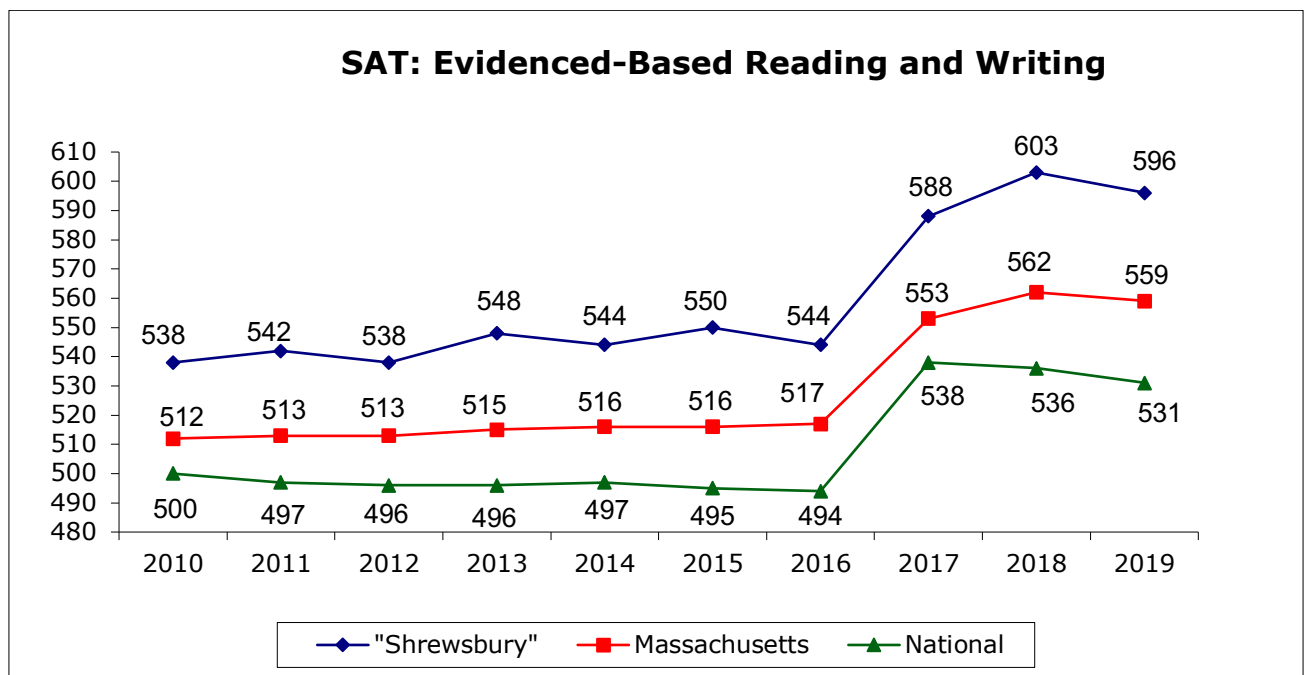


Figure 2

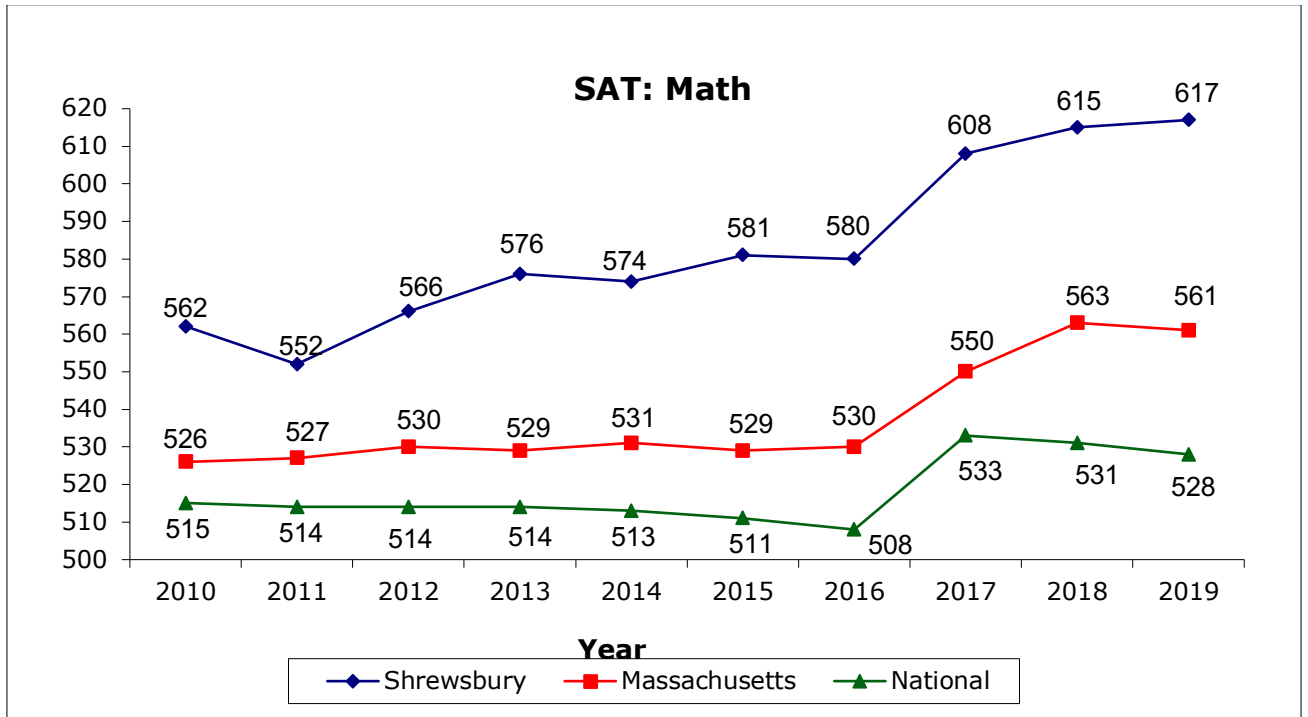


Figure 3

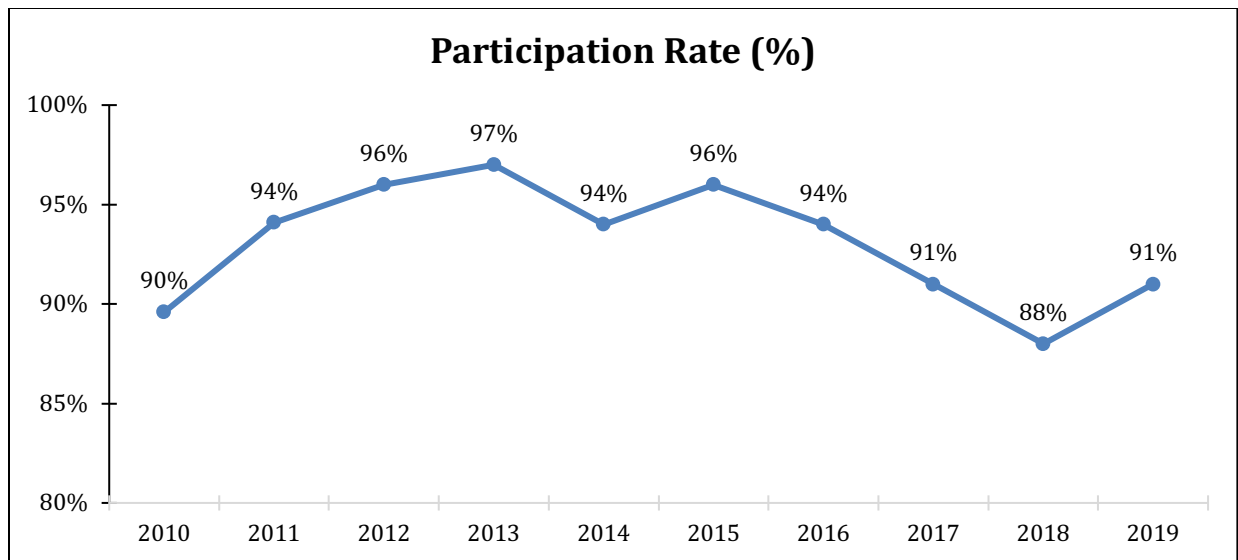


Figure 4

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

E-B Reading & Writing	SHS	Massachusetts	National
Males	586	561	529
Females	602	559	534
Male-to-Female Difference	-16	+2	-5
Math	SHS	Massachusetts	National
Males	624	574	537
Females	611	549	519
Male-to-Female Difference	+13	+25	+18

**SAT—Scores by Gender 2019
Shrewsbury High School**

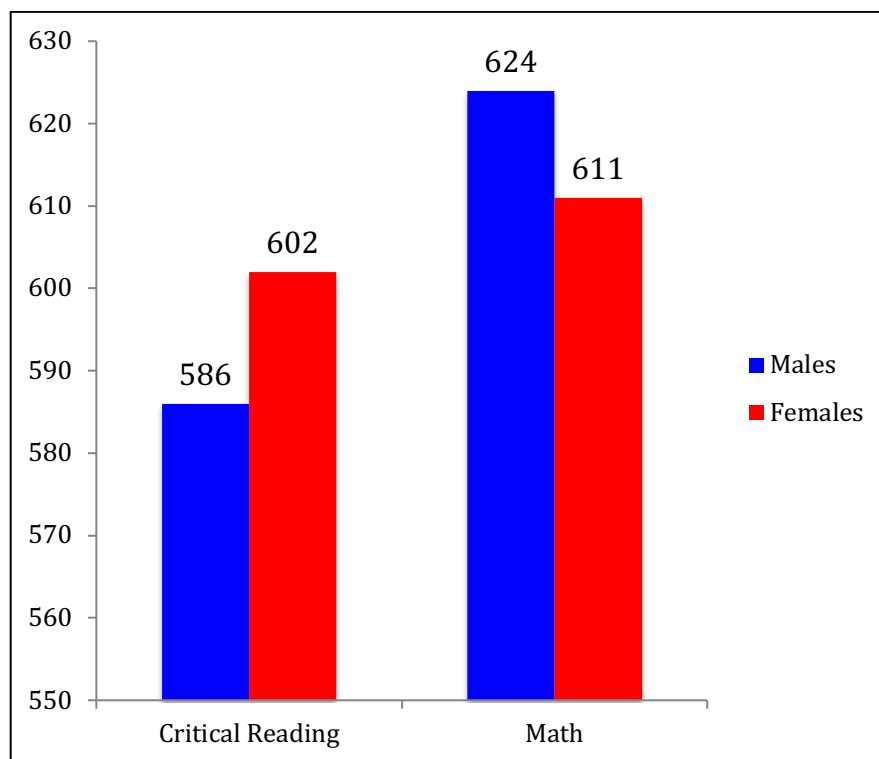


Figure 5

Local School Districts: SAT Mean Scores and Participation Rates

Due to the recent changes in the College Board's SAT test, the College Board has changed their score delivery and reporting. The SAT is reported as a school year mean score without identifying specific grade level. Therefore, cohort scores are no longer reported to the state making the mean score and participation rates unavailable.

Shrewsbury High School One-Year and Five-Year Comparisons

As result of the redesigned test, the 2019 SAT test scores cannot be accurately compared to prior SAT scores. Only 3 years of the Revised SAT scores are available.

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
 - Physics
- **History:**
 - U.S. History

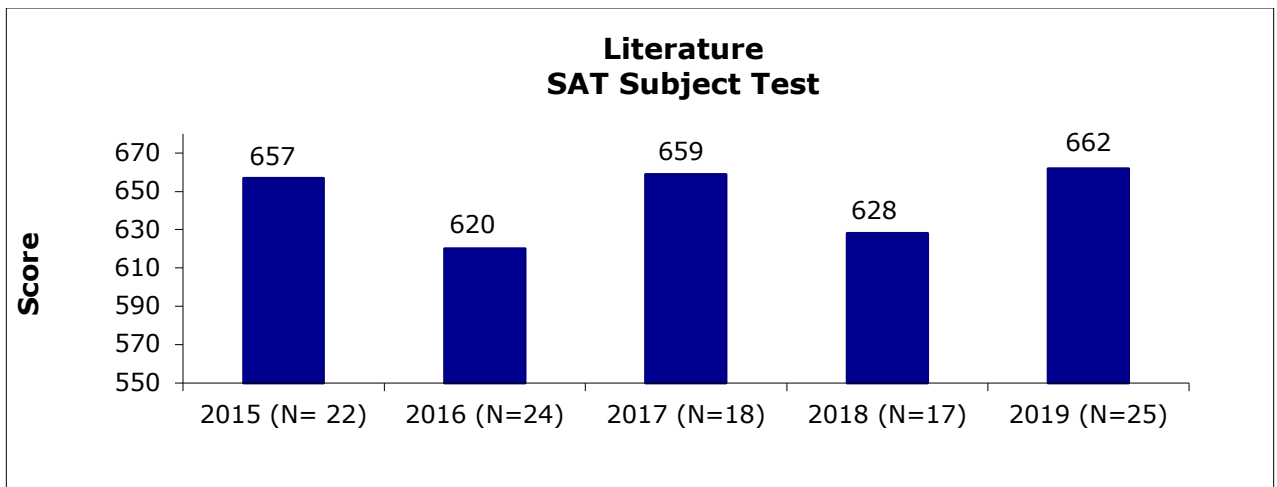


Figure 6

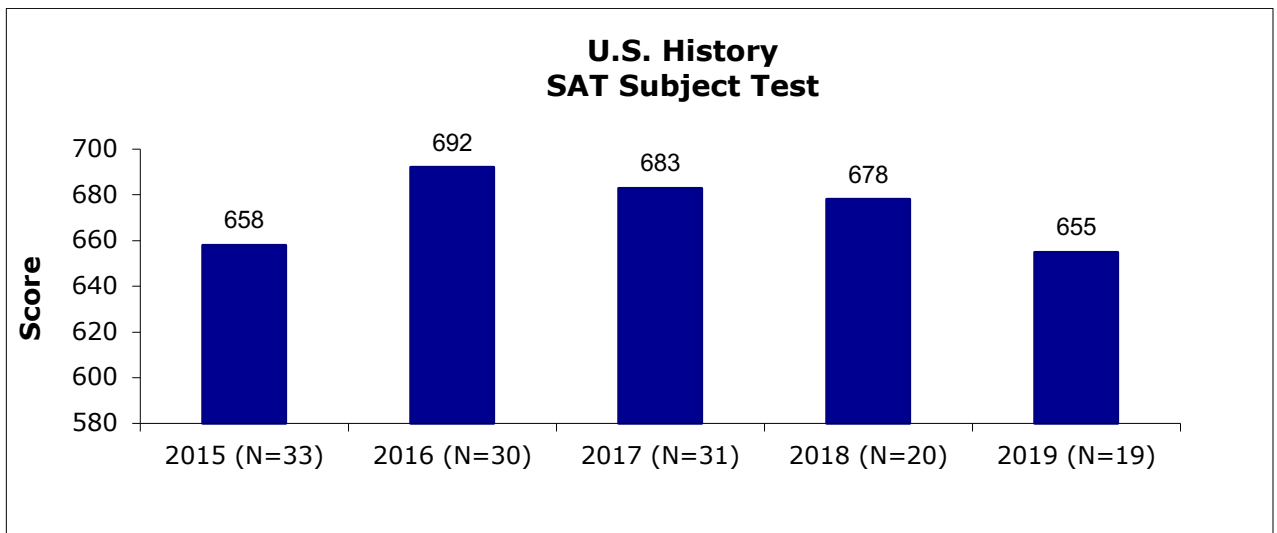


Figure 7

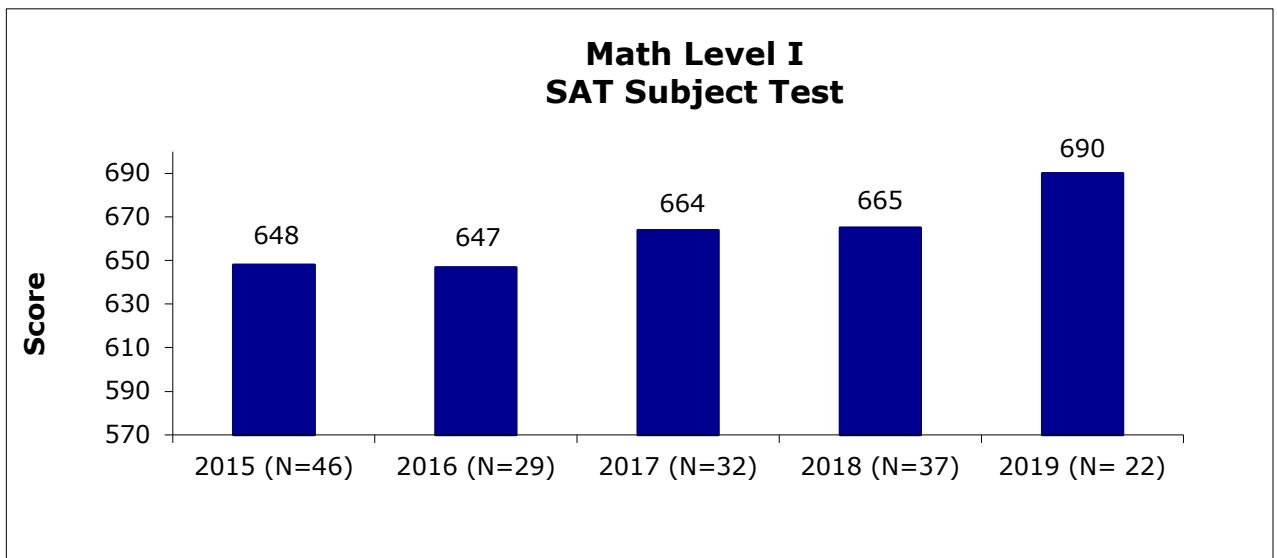


Figure 8

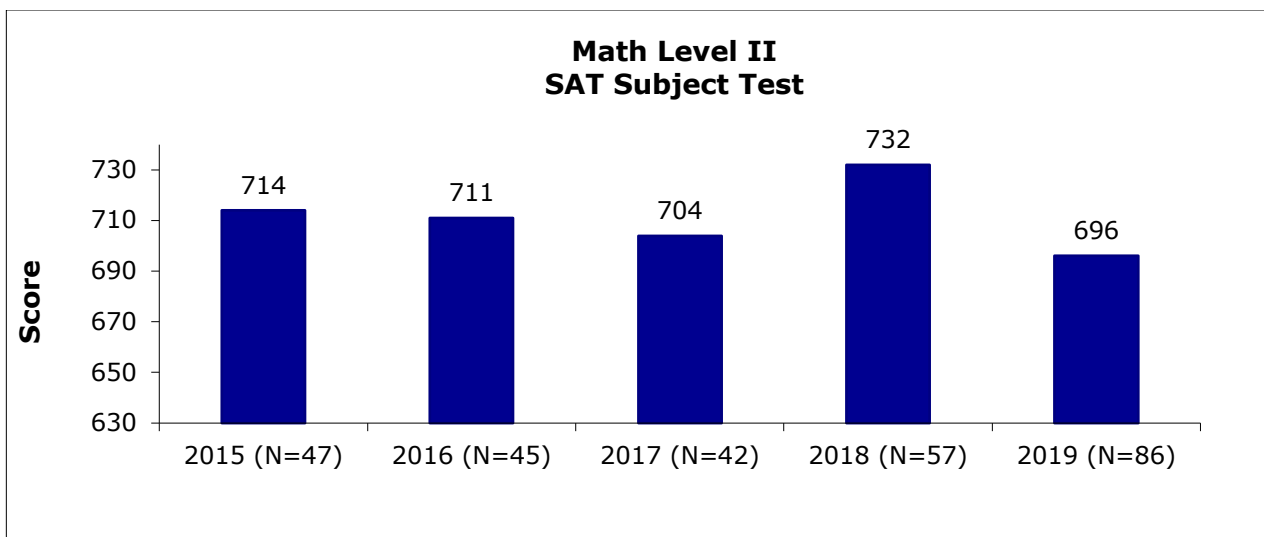


Figure 9

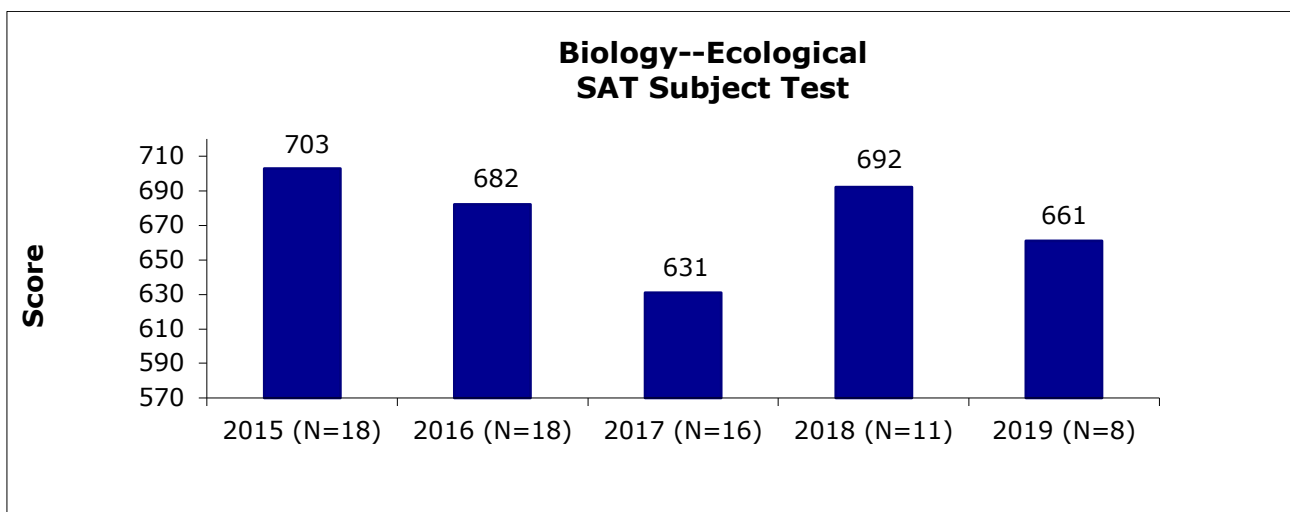


Figure 10

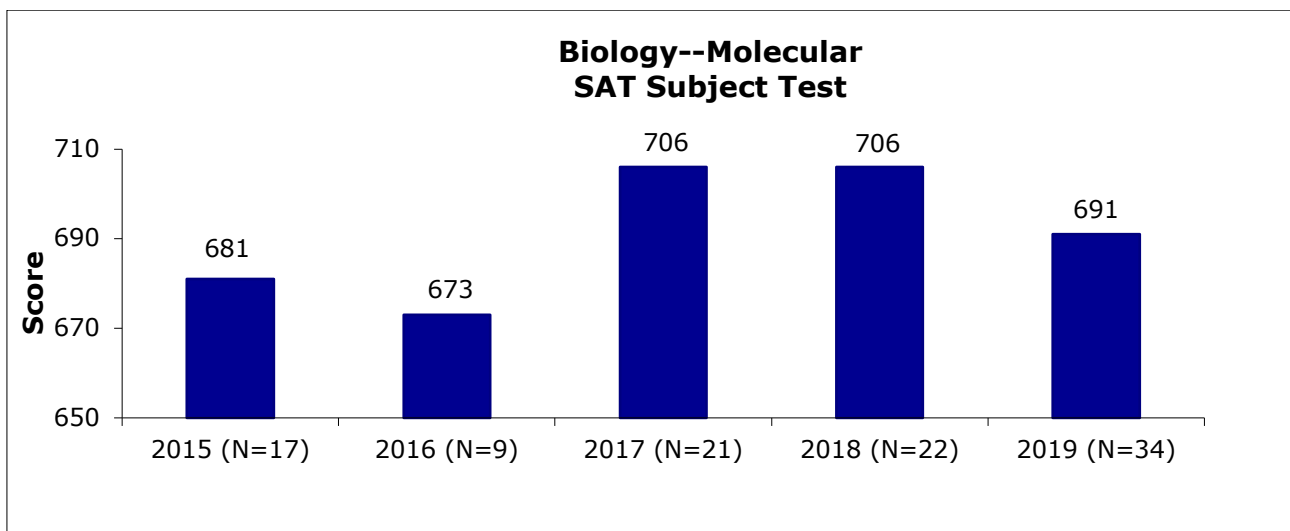


Figure 11

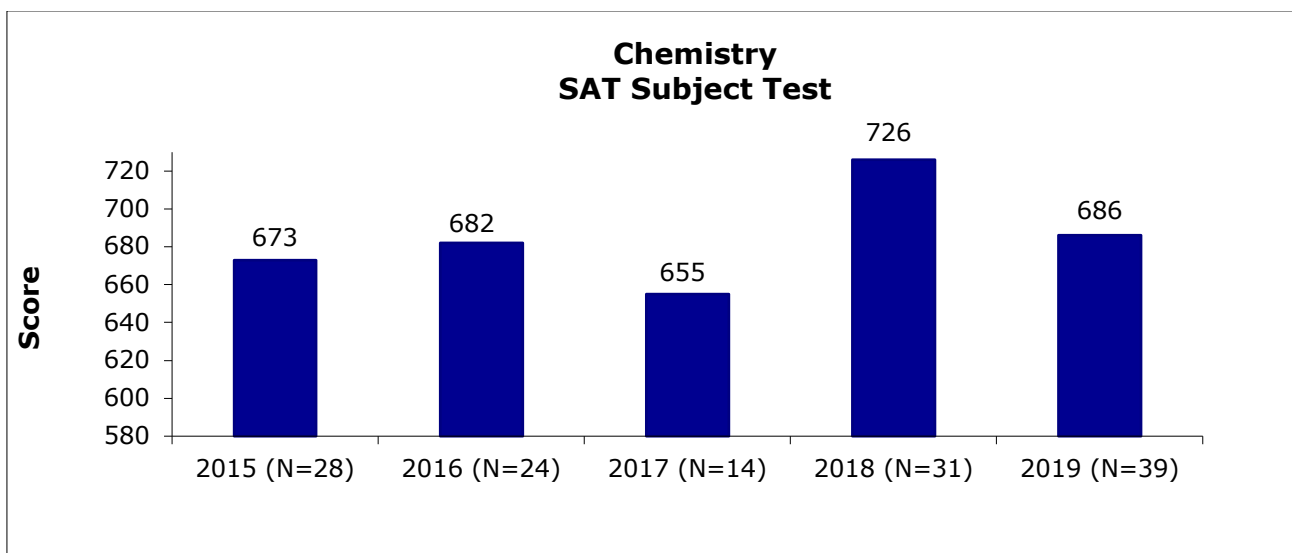


Figure 12

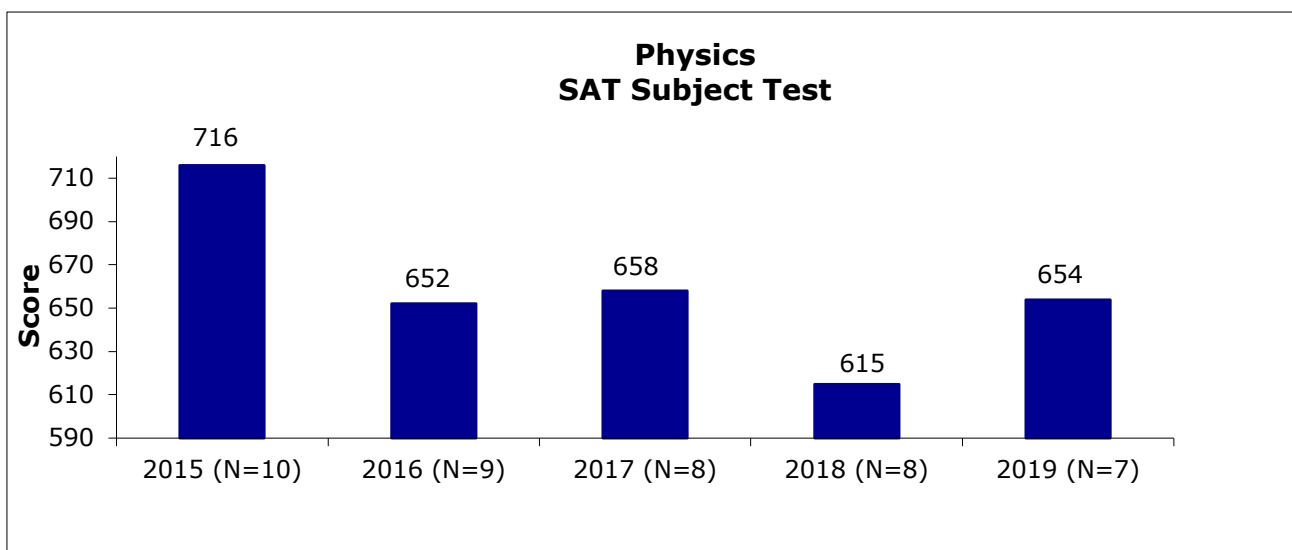


Figure 13

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.

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, 2.1 million students took the SAT last year and 1.9 million students took the ACT.

ACT Participation over a Ten-Year Span

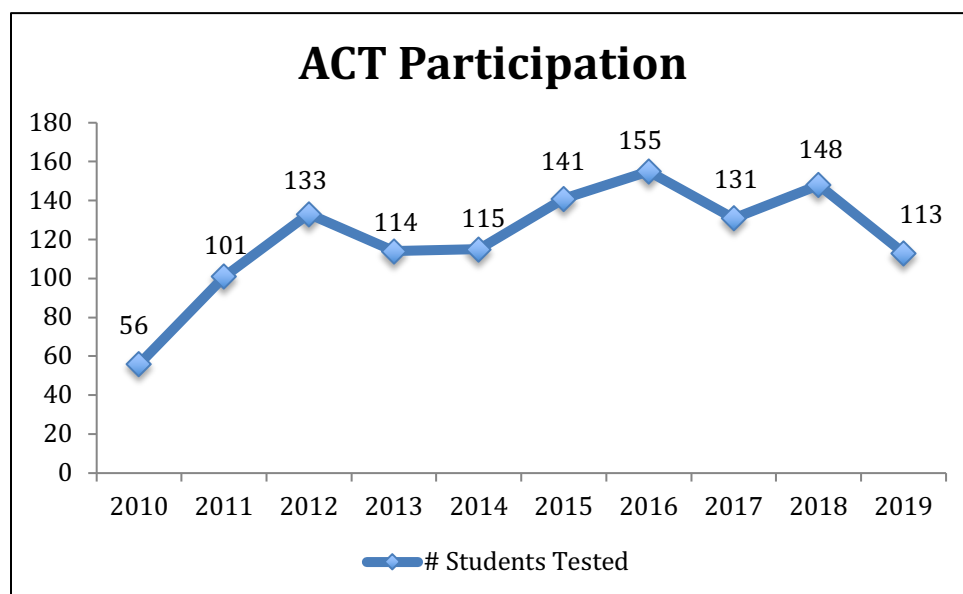


Figure 14

Of the 426 students in the Class of 2019, 113 students took the ACT with the following results in each section compared over a three-year span:

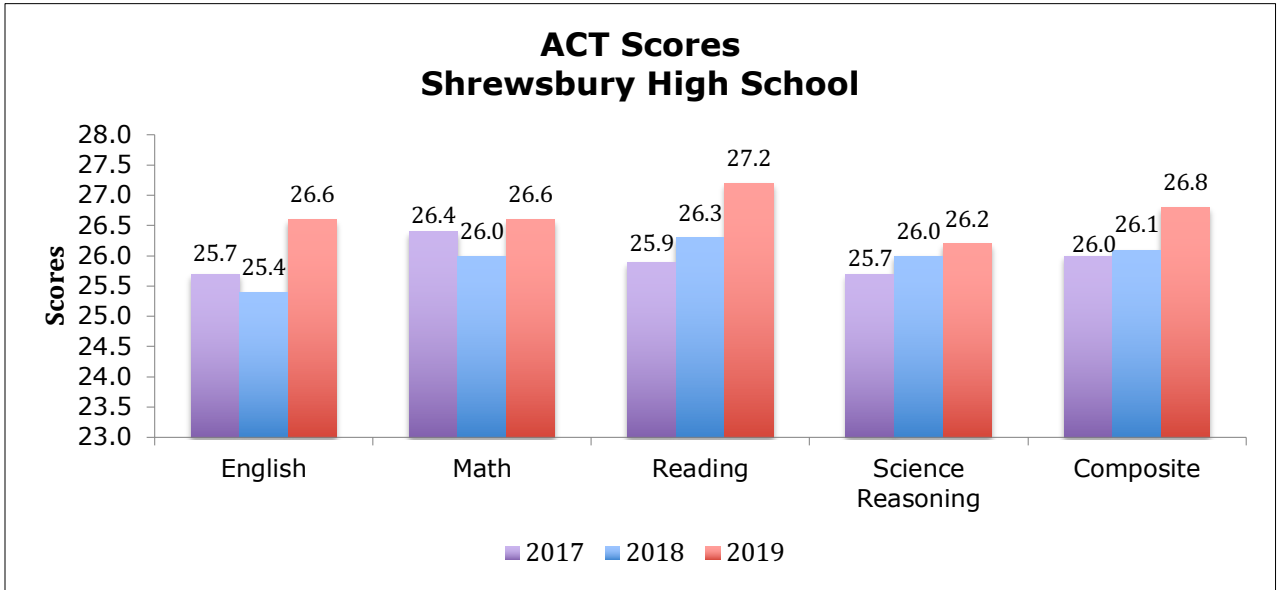


Figure 15

2019 SHS Mean ACT scores are compared with State and National Means:

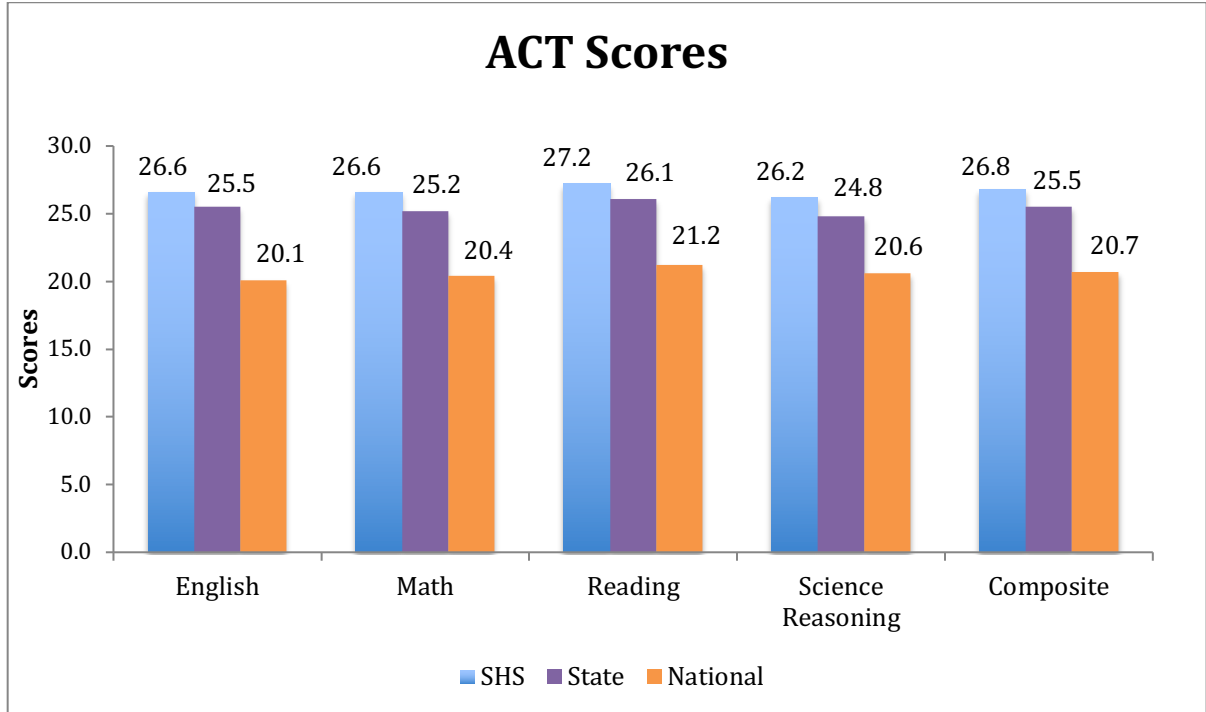


Figure 16

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 26.8 converts to approximately 1270 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 426 students in the Class of 2019, 232 students (55% of the class) took at least one AP Exam. Overall, 884 exams were administered to students in 2019.

The following AP courses were offered during the 2018 – 2019 school year:

- Biology
- Calculus AB
- Calculus BC
- Chemistry
- English Language
- English Literature
- Environmental Science
- French Language
- Human Geography
- 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, 97% of all AP Exams were taken by juniors and seniors.

12 th grade	54%
11 th grade	44%
10 th grade	2%
9 th grade	<1%

Number of AP Exams per Student—SHS and Nationally

The figures below show the cumulative number of exams individual students (from the Class of 2019 at Shrewsbury High School and nationally) took during their high school career from the years 2016 to 2019.

# of Exams Taken by Students	Class of 2019 National %	Class of 2019 Cumulative % National	SHS # of Students Taking Exams	Class of 2019 SHS %	Class of 2019 Cumulative % SHS
1	54.6%	54.6%	59	26%	26%
2	24.0%	78.6%	40	17%	43%
3	12.3%	90.9%	33	14%	57%
4	5.7%	96.6%	26	11%	68%
5	2.3%	98.9%	33	14%	82%
6 or more	1.0%	100%	41	18%	100%

Advanced Placement Participation Rates Shrewsbury High School

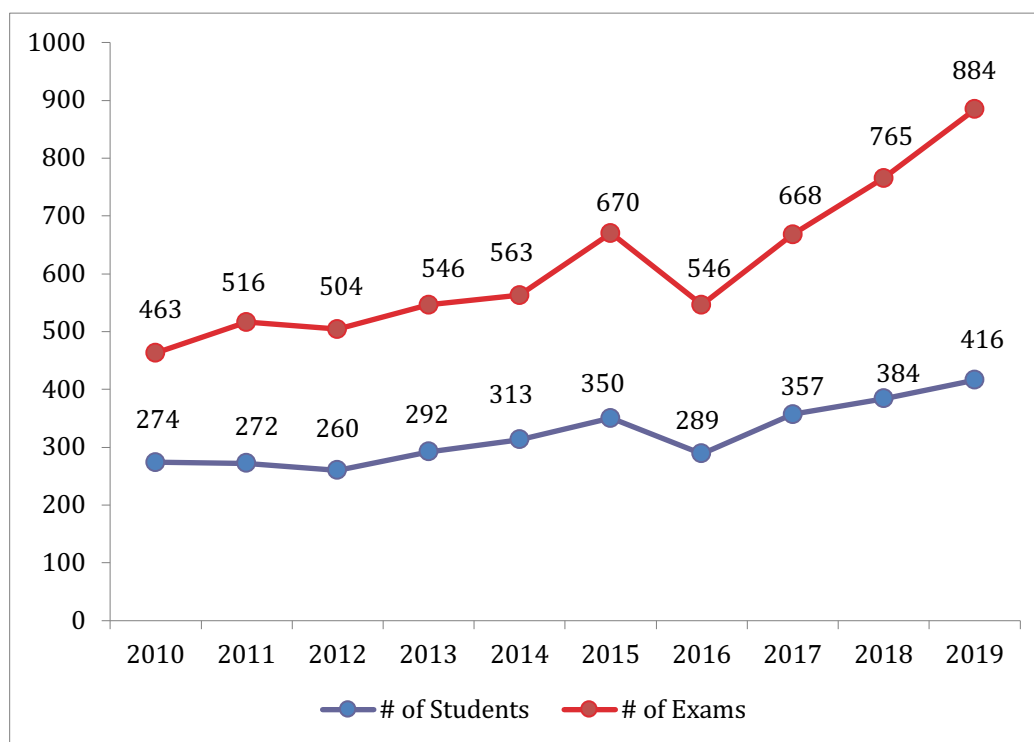


Figure 17

Advanced Placement Exams 2019

Average Scores Shrewsbury High School, Massachusetts, and Nationally

	# of Tests Taken	SHS	Mass	National
Biology	61	3.9	3.2	2.9
Calculus AB	58	4.1	3.2	3.0
Calculus BC	59	4.6	4.0	3.8
Chemistry	51	4.4	3.1	2.7
English Language	126	3.8	3.1	2.8
English Literature	39	4.1	3.0	2.6
Environmental Sci	39	4.2	3.0	2.7
French Language	12	4.5	3.6	3.3
Human Geography	36	3.8	3.0	2.6
Psychology	126	4.2	3.3	3.1
Physics 1	55	3.8	2.5	2.5
Spanish Language	15	4.7	3.8	3.7
Statistics	103	3.8	3.0	2.9
Studio Art Draw	6	4.3	3.6	3.6
US History	44	3.6	3.2	2.7

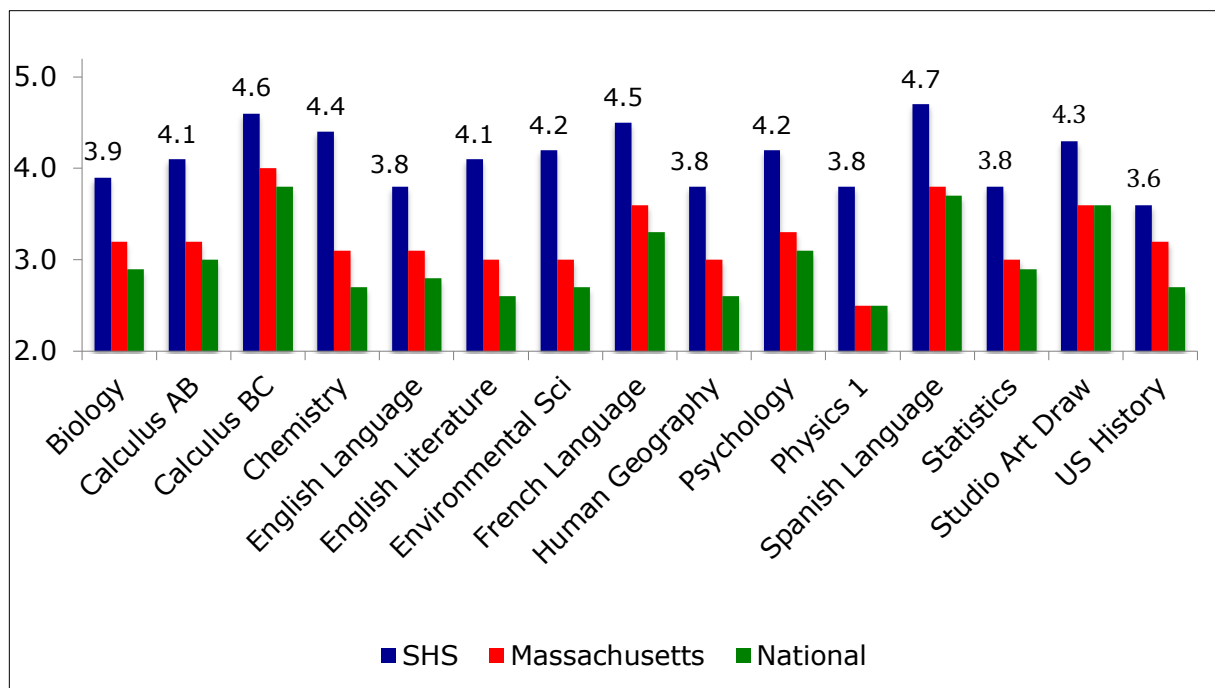


Figure 18

AP Exam Scores

Local School Districts

School	Total Exams Taken	% of Exams with Scores of 3, 4, or 5
Franklin	970	76%
Chelmsford	625	80%
Nashoba	554	87%
Wachusett	724	88%
Hopkinton	1068	88%
Westborough	543	89%
Algonquin	799	91%
Shrewsbury	884	92%
Acton-Boxborough	1200	96%
Westford Academy	888	97%

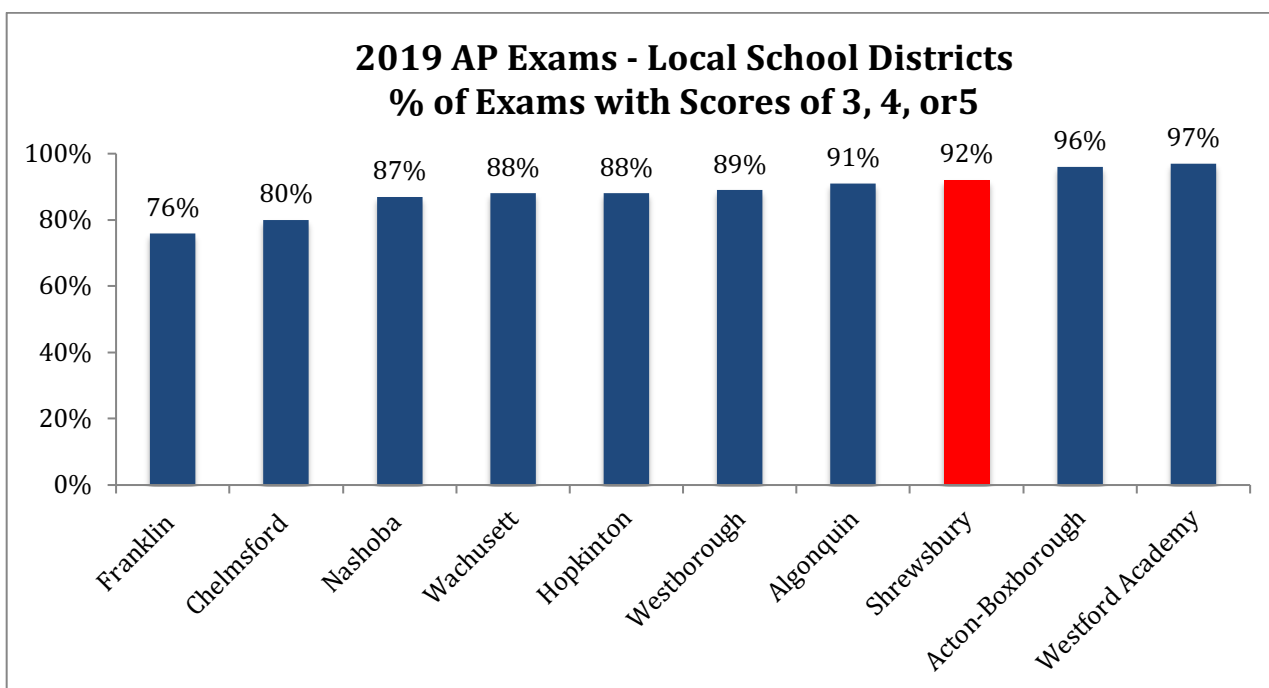


Figure 19

2019 Advanced Placement Exam Results

	5	4	3	2	1	# of tests administered	2019 % scoring 5	2019 % scoring 4 or above	2019 % scoring 3 or above	2018 % scoring 3 or above
Biology	12	31	17	1	0	61	20%	71%	99%	100%
Calculus AB	27	17	8	4	2	58	47%	76%	90%	92%
Calculus BC	40	14	5	0	0	59	68%	92%	100%	95%
Chemistry	27	19	4	1	0	51	53%	90%	98%	97%
English Language	33	45	35	11	2	126	26%	62%	90%	95%
English Literature	15	16	7	0	1	39	38%	79%	97%	97%
Environmental Science	14	20	2	3	0	39	36%	87%	92%	88%
French Language	8	2	2	0	0	12	67%	84%	100%	100%
Human Geography	7	16	11	1	1	36	19%	63%	94%	100%
Physics 1	12	27	10	4	2	55	22%	71%	89%	97%
Psychology	65	36	15	6	4	126	52%	81%	93%	95%
Spanish Language	11	4	0	0	0	15	73%	100%	100%	100%
Statistics	32	32	29	8	2	103	31%	62%	90%	90%
Studio Art Draw	2	4	0	0	0	6	33%	67%	100%	100%
US History	14	13	6	9	2	44	32%	62%	76%	82%
Totals	319	296	151	48	16	830	38%	74%	92%	94%

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	2019 % Scoring 5	2019 % scoring 4 or above	2019 % scoring 3 or above	2018 % scoring 3 or above
Computer Science A	0	3	3	0	0	6	0%	50%	100%	100%
Computer Science Principles*	0	1	1	0	0	2	0%	50%	100%	-
Latin	1	0	0	0	0	1	100%	100%	100%	-
Macroeconomics	4	4	3	4	6	21	19%	38%	52%	38%
Microeconomics	3	4	3	2	6	18	17%	39%	56%	70%
US Government & Politics	2	1	1	2	0	6	33%	50%	67%	100%
Totals	10	13	11	8	12	54	16%	46%	64%	62%

*Two students took Computer Science Principles exam at a different high school.

Quick Highlights:

- The number of students taking AP exams is 416 (32 more than last year).
- The number of AP exams administered is 884 (119 more than last year).
- There were 24 exams taken by students self-studying for 29 courses.
- 55% 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.

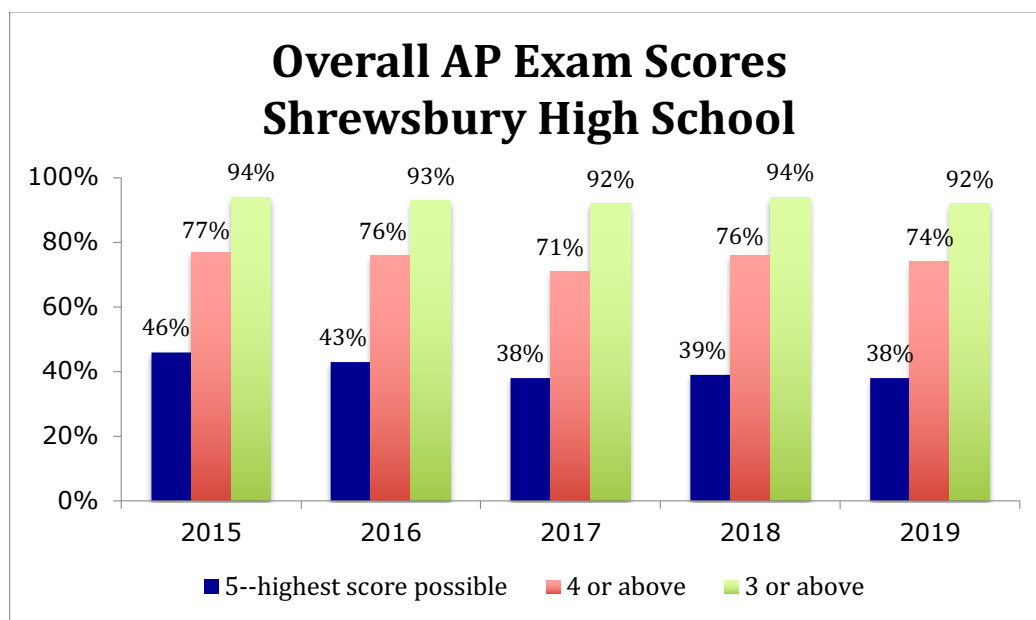


Figure 20

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 2019

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
2019	69	34	64	5	172
2018	66	20	49	6	141
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

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
2019	24	4	1	-
2018	18	5	1	-
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.

2018 – 2019 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.
- **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 44 students and the Spring sessions totaled 75 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. This year is the second reporting year of the redesigned SAT. The College Board continues to make adjustments to their score reporting as they adjust to the newer exam format.

- **Advanced Placement Courses:**

- The number of students taking AP Exams has increased for 2018-2019. 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 continue to be administered on site at Shrewsbury High School utilizing the field house and dance studio for larger exams and smaller classrooms and the language lab for smaller and language exams.