

ASSESSMENT BRIEF

DEPARTMENT OF PLANNING, INNOVATION, AND ACCOUNTABILITY
OFFICE OF STUDENT ASSESSMENT – March 21, 2016

UPDATE: After the spring 2016 administration of the new SAT, the College Board finalized benchmark data for the SAT Suite of Assessments. College and career readiness benchmarks are now set based on expected student growth towards the new SAT benchmarks. For more information visit the [College Board website](#). The 2017 assessment brief will reflect the changes to the PSAT 8/9 benchmarks.

Preliminary SAT 8/9 Results

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ABSTRACT

This report summarizes the results of the PSAT 8/9 assessment that was administered in October 2015 to eighth-grade students in Virginia Beach City Public Schools (VBCPS). This report includes comparisons of PSAT 8/9 data at the school, division, and national levels.

Over 4,000 PSAT 8/9 results were received for test takers at all VBCPS middle schools to include Renaissance Academy. As a group, Virginia Beach eighth-grade students performed as well as or better than their peers at the national level when comparing the Total Mean Score, both Mean Section Scores (evidence-based reading and writing and math), and the three Mean Test Scores (reading, writing and language, and math).

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BACKGROUND

The PSAT 8/9 is one part of an integrated assessment system created by the College Board. The PSAT 8/9 measures the same skills and knowledge as the SAT, PSAT/NMSQT, and PSAT 10. The PSAT 8/9 establishes a baseline measurement of college and career readiness as students enter high school. The PSAT 8/9 measures a range of skills based on what students learn in school and what research shows are most important for college and career readiness and success. The PSAT 8/9 includes a reading test, writing and language test, and a math test that contribute to two section scores: Evidence-Based Reading and Writing (ERW) and Math. The two sections combined result in a Total Score.

The reading test focuses on how students take in, think about, and use information. It is made up of multiple-choice questions based on reading passages, some of which include informational graphics, such as tables, graphs, and charts. Students are required to interpret information and use that information to answer questions. The reading test is part of the ERW section. Students are asked questions on the following skills: command of evidence, words in context, and analysis in history/social studies and science. The reading test includes one passage from a classic or contemporary work of U.S. or world literature; one passage or a pair of passages from either a U.S. founding document or a text in the great global conversation they inspired (a selection about economics, psychology, sociology, or some other social science) and two science passages (or one passage and one passage pair) that examine foundational concepts and developments in earth science, biology, chemistry, or physics.

The writing and language test requires students to read, find mistakes and weaknesses, and fix them. All questions are multiple-choice and just like reading, some passages are accompanied by information graphics. The writing and language test is also a part of the ERW section. Students are asked questions on the following skills: command of evidence, words in context, analysis in history/social studies and science, expression of ideas and Standard English conventions.

The math test emphasizes problem solving, modeling, using tools strategically, and using algebraic structure. Questions on the math test are designed to mirror the problem solving and modeling that students will encounter in college math, science, and social science courses, jobs

that they may hold in the future, and in their personal lives. Most math questions are multiple-choice but some require students to provide an answer instead of selecting an answer. The math test is divided into a calculator portion and a non-calculator portion. The math tests focuses on algebra, problem solving, and data analysis. Students are asked questions on the following skills: fluency, conceptual understanding, and applications. In addition, the test includes some passport to advanced math questions.

The majority of the data presented in this report are based on mean scores. The PSAT 8/9 score ranges are detailed in Table 1. This brief will focus on total scores, section scores, and test scores. Cross-test scores and sub-scores have been provided to schools for a deeper analysis.

Each section of the PSAT 8/9 has a College and Career Readiness Benchmark. Students who score at or above the established

PSAT 8/9 Score Reported	Details	Score Range
Total Score	Sum of the two section scores.	240-1440
Section Scores	Evidence-Based Reading and Writing and Math	120-720 each
Test Scores	Reading, Writing and Language, and Math	6-36 each
Cross-Test Scores	Analysis in History/Social Studies and Analysis in Science. These scores are based on selected questions in Reading, Writing and Language, and Math tests.	6-36 each
Sub-Scores	Reading and Writing and Language: Command of Evidence and Words in Context. Writing and Language: Expression of Ideas and Standard English Conventions. Math: Heart of Algebra, and Problem Solving and Data Analysis.	1-15 each

benchmarks (320 for ERW and 420 for math) are considered to be on track to be ready for college and career training programs when they graduate high school. Meeting the college readiness benchmark(s) means that a student is on track to a 75 percent likelihood of achieving a C or better in a set of first-year, credit-bearing college courses. College literature, writing, or social studies are the courses associated with the ERW benchmark and freshmen math courses are associated with the math benchmark. All students, whether the benchmarks are met or not, can use the detailed feedback from his/her score reports to determine which skills require the most improvement. The College Board and Khan Academy have partnered to create personalized practice based in test performance and practice on Khan Academy. Students who choose to link his/her accounts will be provided with free practice for the PSAT/NMSQT and SAT based on his/her PSAT 8/9 results.

METHODOLOGY

The Virginia Beach data summarized herein were extracted from the data reports provided by the College Board with the expectation of demographic subgroup data which was extracted from the division’s data warehouse after PSAT 8/9 scores were linked with student demographic records. Renaissance Academy and Southeastern Cooperative Educational Program (SECEP) results are included in the division summary, but excluded from the individual school summary results shared in this report. In addition, Native Hawaiian/Other Pacific Islander students are excluded from the race/ethnicity subgroup summary reporting because they comprise less than 1 percent of the student population.

PSAT 8/9 MEAN SCORES FOR VBCPS AND THE NATION

October 2015 was the first annual administration of the PSAT 8/9. The PSAT 8/9 was administered divisionwide to 4,901 eighth-grade students at VBCPS middle schools and Renaissance Academy as indicated in Table 2. Nationally, 271,498 students in eighth grade participated in PSAT 8/9.

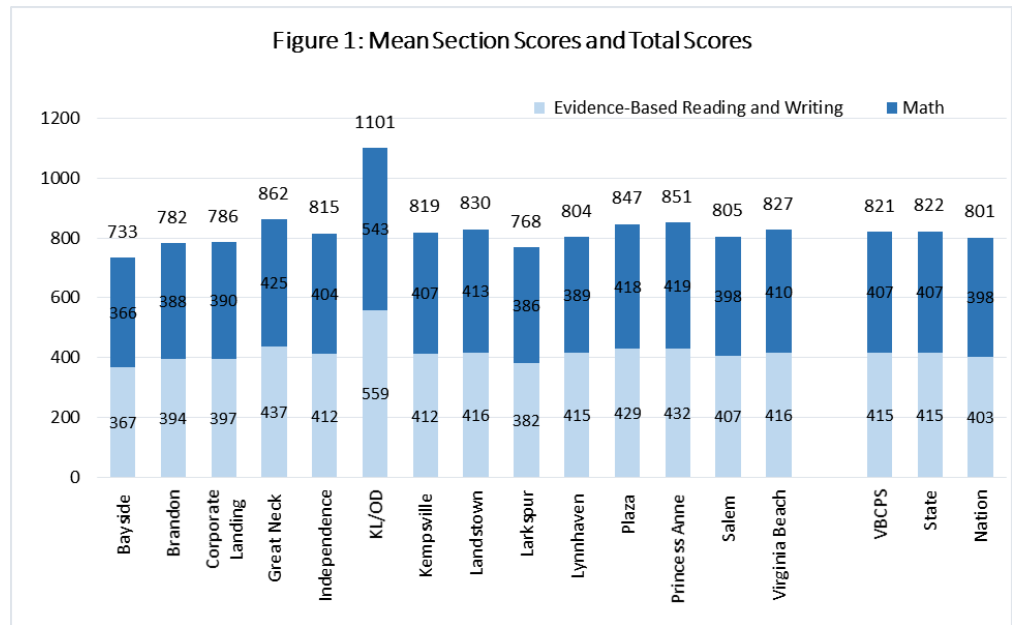
Group	Total Number Tested	Total Mean Score	Mean Section Score		Mean Test Score		
			ERW*	Math	Reading	Writing and Language	Math
VBCPS	4,901	821	415	407	21	20	20
Virginia	7,884	822	415	407	21	20	20
Nation	304,282	801	403	398	21	20	20

*Evidence-Based Reading and Writing (ERW)

In Virginia 7,884 eighth-grade students participated, 62% of which are VBCPS students.

As a group, eighth-grade students who participated in the PSAT 8/9 in VBCPS performed as well as or better than their counterparts across the nation. The Total Mean Score for Virginia Beach students was 20 points higher than the National Total Mean Score. As a group, VBCPS students scored 12 points higher than the nation on the ERW Section and 9 points higher on the Math Section. The Mean Test Scores on the Reading, Writing and Language, and Math Tests were the same at the division level and at the national level.

Figure 1 shows each school's, the VBCPS, and the state's Mean Section Scores for ERW and Math. The ERW Mean Section Scores are represented by the light blue portion of each bar and Math Mean Section Scores by the dark blue portion of each bar. The Total Mean Scores shown at the top of each bar are derived by adding the two section scores. In some cases, due to rounding, the Total Mean Score will not be the exact sum of the two section scores. The Total Mean Score at the schools ranged from 733 to 1,101. The Total Mean Score



at the national level was 801. Ten of the fourteen schools attained a higher Total Mean Score than the Total Mean Score at the national level. Kemsps Landing/Old Donation (KL/OD) School showed the highest Total Mean Score with 1,101. The next two highest Total Mean Scores were achieved at Great Neck with an 862 and Princess Anne with an 851.

At all but one school, the ERW Mean Section Score was higher than the Math Mean Section Score (ranging from 1 to 26 points). Nine of the fourteen schools (Great Neck, Independence, KL/OD, Kempsville, Landstown, Plaza, Princess Anne, Salem, and Virginia Beach) attained section scores higher than or equal to the national Mean Section Scores on both sections (ranging from 4 to 156 points in ERW and 0 to 145 points in math). Kemsps Landing/Old Donation School attained the highest Mean Section Scores with 559 in ERW and 543 in math. The next two highest Mean Section Scores were attained at Great Neck (ERW = 437 and math = 425) and Princess Anne (ERW = 432 and math = 419).

Group	Tests		
	Reading	Writing and Language	Math
Bayside	18.9	17.8	18.3
Brandon	20.2	19.2	19.4
Corporate Landing	20.4	19.3	19.5
Great Neck	22.6	21.1	21.3
Independence	21.2	20.0	20.2
KL/OD	28.1	27.8	27.1
Kempsville	21.3	20.0	20.3
Landstown	21.4	20.2	20.7
Larkspur	19.7	18.5	19.3
Lynnhaven	21.3	20.2	19.4
Plaza	21.8	21.1	20.9
Princess Anne	22.2	21.0	21.0
Salem	20.7	19.9	19.9
Virginia Beach	21.5	20.1	20.5
VBCPS	21.3	20.2	20.3
State	21.3	20.2	20.3
Nation	20.6	19.7	19.9

Table 3 shows each school's Mean Test Scores for the three PSAT 8/9 tests (reading, writing and language, and math). These test scores contribute to PSAT 8/9 section scores. The Reading and Writing and Language Test scores are scaled and combined for the ERW section score, and the Math test score is scaled and reported as the Math Section Score. At all schools and at the national level, the highest test scores were on the reading test. At ten schools, the Reading Mean Test Scores were higher than the national level. The Writing and Language Mean Test Scores at ten schools were higher than the National level. The Math Mean Test Scores at nine schools were the same or higher than the Math Mean Test Scores at the National level.

PSAT 8/9 MEAN SCORES BY SUBGROUPS

Table 4 shows the number of VBCPS eighth-grade students who participated in PSAT 8/9 and the mean scores by ethnic group and gender. Percentages were calculated by dividing the number of students in each group by the total number of students who were administered the PSAT 8/9 assessment. It

should be noted that for groups with an extremely small number of test takers (i.e., fewer than 50 students), an individual student’s test performance will greatly affect the group’s mean scores.

As shown in Table 4, the two largest ethnic groups of test takers were Caucasian/White (50.9%) and African American/Black (24.8%). The Asian subgroup attained the highest Total Mean Score and Mean Section Scores followed by the Caucasian/White student group. The Asian female subgroup outperformed the Asian male subgroup by 34 Total Mean Score points and the Caucasian/White female subgroup outperformed the Caucasian/White male subgroup by 24 Total Mean Score points.

The African American/Black student group showed the lowest Total Mean Score, Mean Section Scores, and Mean Test Scores when compared to other ethnic groups. The African American/Black female subgroup outperformed the African American/Black male subgroup by 21 Total Mean Score points.

Table 4: Grade 8 PSAT 8/9 Mean Scores by Ethnicity and Gender - 2015

Group	Total Number Tested	Percent Of VBCPS Total	Total Mean Score	Mean Section Score		Mean Test Score		
				ERW*	Math	Reading	Writing and Language	Math
African American/Black	1,214	24.8%	742	372	370	19.1	18.0	18.5
Female	584	11.9%	752	380	372	19.4	18.6	18.6
Male	630	12.9%	731	363	368	18.9	17.4	18.4
Asian	321	6.5%	879	438	441	22.2	21.6	22.0
Female	152	3.1%	897	453	444	22.9	22.4	22.2
Male	169	3.4%	863	424	438	21.5	20.9	21.9
Caucasian/White	2,495	50.9%	856	435	421	22.3	21.1	21.1
Female	1215	24.8%	868	447	422	22.8	21.9	21.1
Male	1279	26.1%	844	423	421	21.9	20.4	21.0
Hispanic	443	9.0%	804	403	402	20.7	19.6	20.1
Female	239	4.9%	810	407	404	20.6	20.1	20.2
Male	203	4.1%	797	398	399	20.8	19.0	20.0
Two or More	403	8.2%	819	413	406	21.1	20.2	20.3
Female	203	4.1%	833	426	407	21.7	21.0	20.3
Male	200	4.1%	806	399	406	20.5	19.4	20.3
VBCPS	4,901	100%	821	415	407	21.3	20.2	20.3
Female	2,411	49%	833	425	408	21.8	21.0	20.4
Male	2,490	51%	810	404	406	21.0	19.5	20.3

*Evidence-Based Reading and Writing (ERW)

Table 5 compares the number of VBCPS eighth-grade students who participated in the PSAT 8/9 and the mean scale scores for students with disabilities and students not identified as having disabilities, students identified as economically disadvantaged, and students not identified as economically disadvantaged, and students identified as limited English proficient and students not identified as limited English proficient. Each subgroup compares data to students belonging to the subgroup and students who are not identified for that particular subgroup. The difference between each group’s mean scores identifies gaps. Percentages were calculated by dividing the number of students in each group by the total number of students who were administered the PSAT 8/9 assessment.

As shown in Table 5 (on the next page), the students with disabilities subgroup attained a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified with disabilities. The gaps on the reading, writing

and language, and math tests when comparing the students with disabilities subgroup to the subgroup of students not identified with disabilities was -4 points in reading, -4.8 points in writing and language, and -3.6 points in math.

Students identified as economically disadvantaged attained a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified as economically disadvantaged. The gaps on the reading, writing and language, and math tests when comparing the economically disadvantaged subgroup to the subgroup of students not identified as economically disadvantaged was -2.3 points in reading, -2.5 points in writing and language, and -2.1 points in math.

Students identified as limited English proficient showed a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified as limited English proficient. The gaps on the reading, writing and language, and math tests comparing students identified as limited English proficient to students not identified as limited English proficient was -3.0 points in reading, -1.9 points in writing and language, and -1.2 point in math.

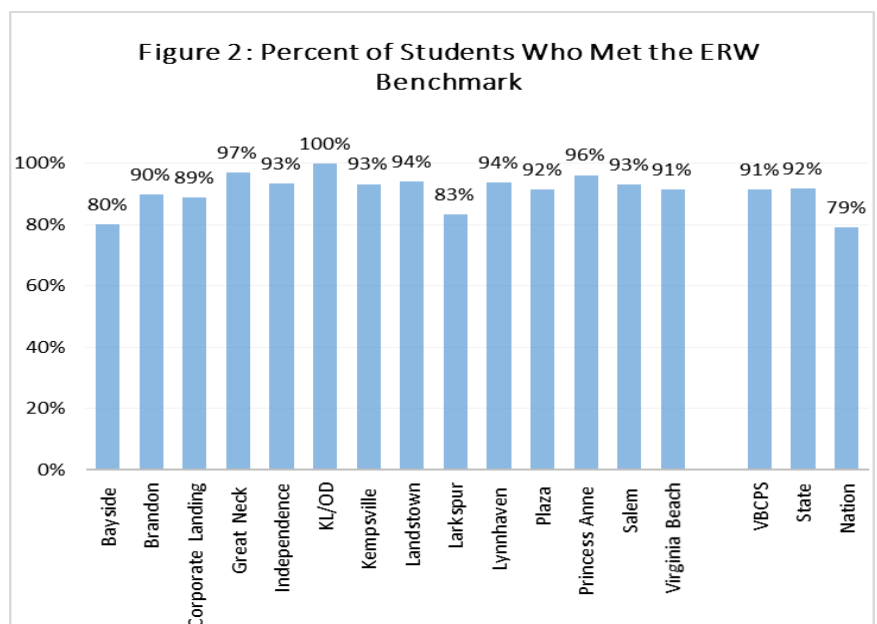
Table 5: Grade 8 PSAT 8/9 Mean Scores by Other Subgroups - 2015

Group	Total Number Tested	Percent Of VBCPS Total	Total Mean Score	Mean Section Score		Mean Test Score		
				ERW*	Math	Reading	Writing and Language	Math
Students With Disabilities	449	9.2%	675	334	341	17.6	15.8	17.1
Students NOT Identified With Disabilities	4452	90.8%	836	423	413	21.6	20.6	20.7
Difference			-161	-89	-72	-4.0	-4.8	-3.6
Students Identified as Economically Disadvantaged	1798	36.7%	764	384	381	19.8	18.6	19.0
Students NOT Identified as Economically Disadvantaged	3103	63.4%	854	432	422	22.1	21.1	21.1
Difference			-90	-48	-41	-2.3	-2.5	-2.1
Students Identified With Limited English	48	1%	750	366	385	18.3	18.3	19.2
Students NOT Identified With Limited English	4853	99%	822	415	407	21.3	20.2	20.4
Difference			-72	-49	-22	-3.0	-1.9	-1.2

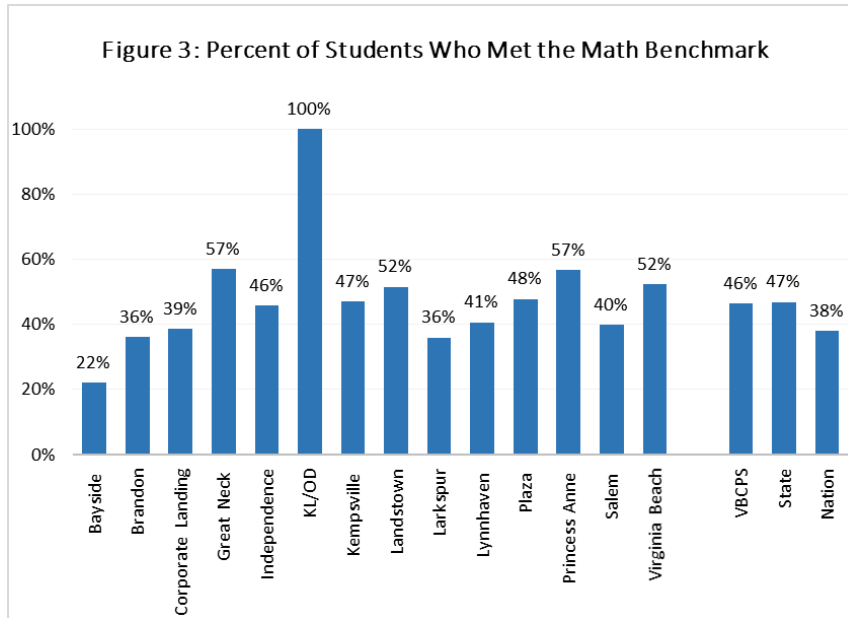
*Evidence-Based Reading and Writing (ERW)

PSAT 8/9 BENCHMARK RESULTS FOR VBCPS AND THE NATION

The PSAT 8/9 College Readiness Benchmarks represent the scores that students should meet or exceed to be considered on track to be college ready. The number above each bar in Figure 2 indicates the percent of students who scored at or above the College Readiness Benchmark Score for ERW (320). As a division, 91 percent of students met this benchmark compared to the 79 percent at the national level. As a group, a higher percentage of students at all of the fourteen schools exceeded the College Readiness Benchmark in ERW than at the national level.



The number above each bar in Figure 3 indicates the percent of students who scored at or above the College Readiness Benchmark Score for math (420). As a division, 46% of students met the College Readiness Benchmark compared to the 38% at the national level. As a group, a higher percentage of students at 11 of the 14 schools met or exceeded the College Readiness Benchmark in math at the national level.



The percent of students who met or exceeded the ERW College Readiness Benchmark is higher than the percent of students who met or exceeded the benchmark in math at all schools except for KL/OD School (ranging from 39 to 58 percentage points) and at the national level (41 percentage points).

SUMMARY

The October 2015 administration of the PSAT 8/9 to eighth-grade students in VBCPS provided information that allowed comparisons with other PSAT 8/9 test takers across the nation. As a

group, Virginia Beach eighth-grade students performed better than their peers at the national level. The Mean Total Score for Virginia Beach students was 20 points higher than the national Mean Total Score. Ten of the fourteen schools attained a higher Total Mean Score than the Total Mean Score at the national level. As a group VBCPS students scored 12 points higher than the nation on the ERW Section and 9 points higher on the Math Section.

At all but one school, the ERW Mean Section Score was higher than the Math Mean Section Score. Nine of the fourteen schools attained section scores higher than or equal to the national Mean Section Scores on both sections. At all schools and at the national level, the highest test scores were on the reading test.

Achievement gaps between some ethnic and gender groups in Virginia Beach were evident. The Asian subgroup attained the highest Total Mean Score and Mean Section Scores followed by the Caucasian/White student group. The African American/Black student group showed the lowest Total Mean Score, Mean Section Scores, and Mean Test Scores when compared to other ethnic groups. Achievement gaps among other subgroups were also evident. The students with disabilities subgroup showed a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified with disabilities. Students identified as economically disadvantaged showed a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified as economically disadvantaged. Students identified as limited English proficient showed a Total Mean Score, Mean Section Scores, and Mean Test Scores that were lower than students not identified as limited English proficient.

The percent of students who met or exceeded the College Readiness Benchmark in ERW is the same as or higher than the percent of students who met the benchmark in math across all schools and at the national level. The percent of VBCPS students meeting the College Readiness Benchmark in ERW was 91% compared to the 79% at the national level. The percent of VBCPS students meeting the College Readiness Benchmark in math was 46% compared to the 38% at the national level.