

ASSESSMENT BRIEF

DEPARTMENT OF TEACHING AND LEARNING
DEPARTMENT OF PLANNING, INNOVATION, AND ACCOUNTABILITY – DECEMBER 14, 2018

Advanced Placement Results for 2017-2018

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ABSTRACT

This assessment brief provides a summary of enrollment and exam data for the Advanced Placement (AP) program of Virginia Beach City Public Schools (VBCPS). AP data at the school, division, state, and national levels are included for 2017-18 and for previous academic years. During 2017-18, 7,223 VBCPS students were enrolled in 13,550 AP classes, and 42 percent of all VBCPS sophomores, juniors, and seniors took at least one AP course. Approximately 73 percent of all AP course enrollees took the AP Exam that corresponded with the course; 59 percent of the 10,123 exams taken received a score of 3, 4, or 5. This was a 2 percent increase from 2016-17 in the number of AP Exams with scores of 3 or above and was concurrent with an increase of almost 500 exams from 2016-17 to 2017-18. Seven of the 12 VBCPS schools with students who took AP Exams saw an increase from the previous year in the percent of exams that received scores of 3, 4, or 5. The AP Exam performance of VBCPS students continues to exceed the exam performance of public school students across the nation, but the percent of VBCPS students with scores of 3 or above was lower than the percent for public school exam takers at the state level. Overall, the increases in AP course enrollment, AP Exam participation, and exams with scores of 3 or above were signs of the popularity and quality of the Advanced Placement program of Virginia Beach City Public Schools.

KEY TOPICS:

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BACKGROUND

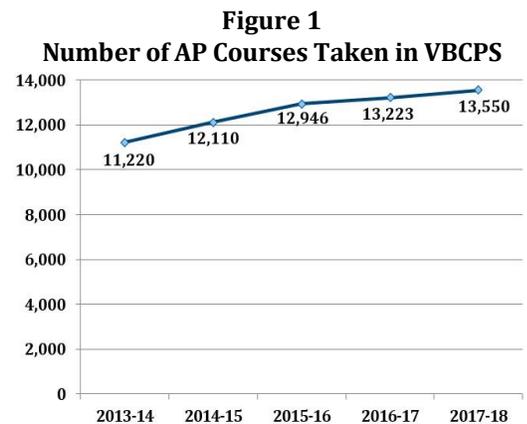
For nearly 60 years, the Advanced Placement (AP) program has given high school students opportunities to take rigorous courses and receive college credit and placement with qualifying scores on end-of-course examinations. With nearly 5 million exams taken nationally during the 2017-18 school year, AP is one of the College Board's premier programs.

This assessment brief summarizes and compares AP program results for Virginia Beach City Public Schools (VBCPS), the state, and the nation. Some of the data in the brief have been disaggregated by ethnicity and school.

ENROLLMENT IN AP COURSES

During the 2017-18 school year, VBCPS offered 34 of the College Board's 37 AP courses. This included online classes offered by the Virginia Department of Education's Virtual Virginia, or VVa program.

Figure 1 shows that VBCPS students were enrolled in over 13,500 AP classes in 2017-18, and AP course enrollment has steadily increased in the division. Since the 2013-14 school year, the number of AP classes taken annually by Virginia Beach students increased by 21 percent.



Source: VBCPS Student Data Warehouse.

Since many students take two or more AP classes, the number of students enrolled in the AP program is less than the number of course enrollments. A total of 7,223 students took the 13,550 AP classes in VBCPS during the 2017-18 school year. This was an increase of 211 from the 2016-2017 school year. Most AP courses are taken by sophomores, juniors, and seniors. Forty-two percent of VBCPS students in grades 10-12 took at least one AP class in 2017-18.

On the next page, Table 1 shows VBCPS AP course enrollment totals and percentages by gender and racial/ethnic group. The table also shows each group's representation, in percentages, among the population of all VBCPS high school students as of September 30, 2017. Groups with fewer than 20 students were not included in the table. Although female students made up less than 49 percent of all VBCPS high school students, they comprised over 57 percent of students who took one or more AP courses in 2017-18.

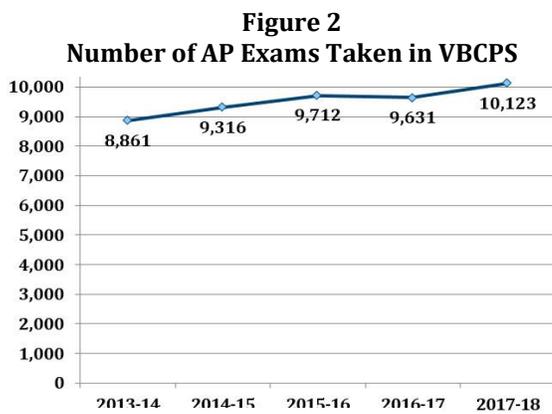
Table 1
AP Course Enrollees and VBCPS High School Membership by Race/Ethnicity and Gender for 2017-2018

Group	African American/Black			Asian/Pacific Islander			Hispanic/Latino			Two or More Races			White			All VBPCS		
	female	male	total	female	male	total	female	male	total	female	male	total	female	male	total	female	male	total
Unduplicated Student Count of AP Enrollees	601	353	954	438	332	770	358	249	607	346	242	588	2,411	1,888	4,299	4,166	3,067	7,233
Percentage of All AP Course Enrollees	8.3	4.9	13.2	6.1	4.6	10.6	4.9	3.4	8.4	4.8	3.3	8.1	33.3	26.1	59.4	57.6	42.4	100
Percentage of Students in Membership (HS)	11.8	12.6	24.5	3.5	3.7	7.2	4.9	4.8	9.7	3.9	4.0	7.9	24.3	26.1	50.4	48.6	51.4	100

Source: VBCPS Student Data Warehouse.

AP EXAM PARTICIPATION AND PERFORMANCE

For each AP course, there is an end-of-course, college-level examination. All AP Exams are optional for course enrollees. Students may register to take an AP Exam even if they were not enrolled in the corresponding course.



Source: VBCPS Student Data Warehouse.

Figure 2 shows the total number of AP Exams taken by VBCPS students over the past five years. After a slight decrease in the number of AP Exams taken during the 2016-17 school year, exam participation increased by more than 5 percent in 2017-18. Just as students take more than one AP course, many course takers choose to take multiple AP Exams. The 10,123 examinations administered in VBCPS in 2017-18 were taken by 5,456 students. This was 239 more AP examinees than the previous year.

Table 2 shows the breakdown of AP examinees at the division, state, and national levels by race/ethnicity. Virginia Beach percentages for 2016-17 are provided for comparisons. The percentages indicate the proportion of AP examinees for each racial/ethnic group in the total group of examinees, shown in parentheses.

The table shows that the percentage differences from 2016-17 to 2017-18 for VBCPS ranged from one-tenth to six-tenths of a point. Although they are not shown in Table 2, the percent of AP examinees for all but one of the racial/ethnic groups did not change by more than eight-tenths of a point from 2016-17 to 2017-18 at the state and national levels. The percent of White students represented among all AP examinees across the state and nation decreased, respectively, by 1.6 and 1.4 points.

Racial/Ethnic Group	2016-2017		2017-2018	
	Virginia Beach City Public Schools (n=5,217)	Virginia Beach City Public Schools (n=5,456)	Public Schools Virginia (n=72,170)	Public Schools National (n=2,428,288)
	Percent of Total	Percent of Total	Percent of Total	Percent of Total
African American/Black	10.4%	10.8%	9.3%	7.5%
Asian/Pacific Islander	11.4%	11.5%	15.1%	12.3%
Hispanic/Latino	7.7%	7.4%	11.9%	24.7%
Two or More Races	7.5%	7.9%	7.0%	4.5%
White	62.9%	62.3%	55.1%	48.5%

Sources: VBCPS Student Data Warehouse, *AP Virginia Summary Report 2018*, and *AP National Summary Report 2018*.
 Notes: n = total number tested. Column percentages do not always add up to 100 due to decimal rounding and because racial/ethnic groups with fewer than 20 students in VBCPS were not included in the table.

Table 3 on the following page is a list of AP courses that VBCPS students were enrolled in during the 2017-18 school year. For each course, the table includes the title; the number of enrollees; the percentage of students who earned an A or B in the course; the percent of enrollees who took the corresponding AP Exam; and the percent of exams that received a score of 3, 4, or 5 on the College Board’s five-point scale for AP Exams. The College Board’s “College Course Grade Equivalent” for an exam score of 5 is A+ or A; the college course equivalent for an AP Exam score of 4 is A-, B+, or B; and an exam score of 3 is equivalent to a college grade of B-, C+, or C.¹

¹ College Board, *AP Higher Education: AP Exam Scores*, <https://aphighered.collegeboard.org/courses-exams/scoring>, accessed on December 10, 2018.

The College Board also stated that “nearly all colleges and universities in the United States ... grant credit and placement for AP [Exam] scores or acknowledge AP scores in the admission process.”² Nearly 59 percent of the 10,123 of the AP Exams taken by VBCPS students during the 2017-18 school year received scores of 3, 4, or 5.

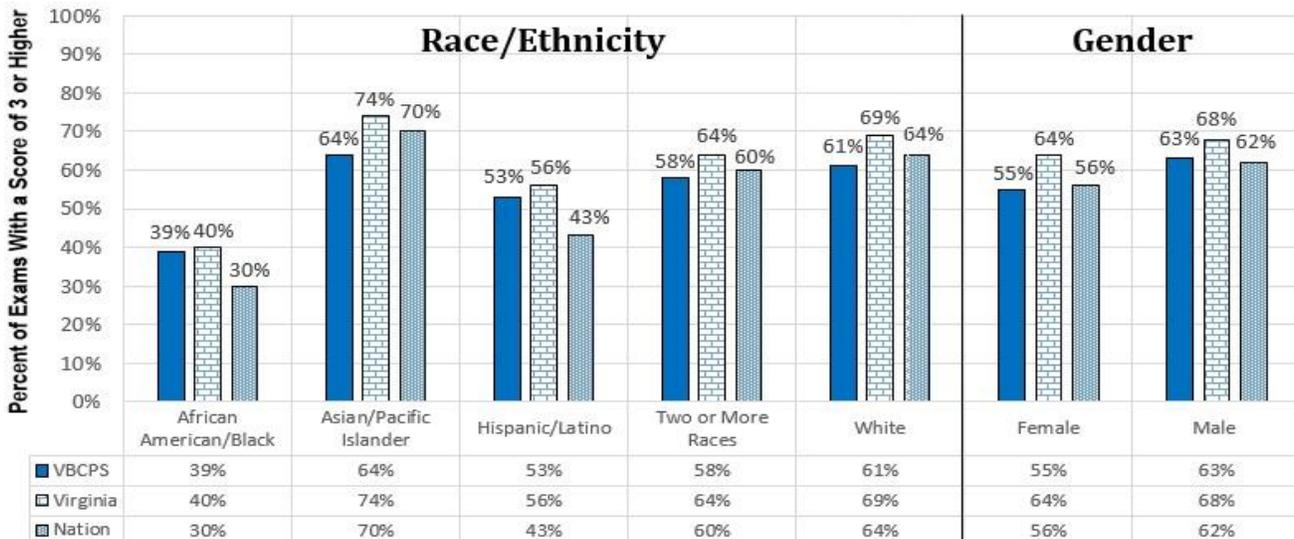
Table 3
AP Course Enrollment, Percentage of Enrollments With Grades of A or B, AP Exam Participation Rates, and Percentage of Exams With Scores of 3 or Higher for 2017-2018

AP Course	Number of VBCPS Students Enrolled in the AP Course	Percent of VBCPS Enrollees Who Received a Grade of A or B	Percent of VBCPS Course Enrollees Who Took the Exam	Percent of Exams With Scores of 3-5 VBCPS	Percent of Exams With Scores of 3-5 Virginia Public	Percent of Exams With Scores of 3-5 Nation Public
Art History	121	92.6%	75.2%	68.1%	66.5%	63.8%
Biology	762	78.1%	70.1%	57.7%	66.4%	59.6%
Calculus AB	684	72.8%	82.6%	59.6%	61.4%	56.0%
Calculus BC	284	89.4%	90.9%	72.6%	81.0%	79.6%
Chemistry	385	74.0%	81.6%	43.8%	60.4%	53.5%
Comparative Government & Politics	51	92.2%	82.4%	88.4%	61.7%	61.6%
Computer Science A	255	84.7%	43.5%	53.9%	70.4%	67.3%
Computer Science Principles	215	75.8%	65.1%	88.6%	77.8%	70.4%
English Language & Composition	965	81.7%	77.5%	68.4%	67.0%	55.0%
English Literature & Composition	817	85.1%	67.9%	61.6%	57.9%	44.5%
Environmental Science	780	85.1%	65.3%	46.8%	48.6%	46.8%
European History	899	71.0%	79.1%	40.5%	51.6%	55.6%
French Language & Culture	56	92.9%	75.0%	76.6%	78.0%	73.3%
German Language & Culture	13	92.3%	53.9%	0.0%	64.3%	68.4%
Human Geography	1,542	70.4%	77.0%	54.6%	63.9%	53.5%
Japanese Language & Culture	12	91.7%	58.3%	100.0%	84.5%	74.9%
Latin	34	97.1%	97.1%	63.6%	61.7%	60.6%
Macroeconomics	20	90.0%	65.0%	57.1%	66.5%	55.7%
Microeconomics	24	83.3%	62.5%	50.0%	72.5%	65.6%
Music Theory	37	83.8%	54.1%	85.7%	68.1%	64.9%
Physics C: Electricity & Magnetism	70	77.1%	84.3%	46.2%	75.5%	72.1%
Physics C: Mechanics				86.7%	78.7%	76.4%
Physics 1	353	88.7%	76.8%	52.5%	38.4%	38.1%
Physics 2	65	90.8%	64.6%	65.1%	53.3%	60.1%
Psychology	1,002	79.0%	76.0%	75.8%	73.6%	65.1%
Seminar	68	97.1%	100.0%	92.7%	88.5%	82.1%
Spanish Language & Culture	202	92.1%	79.2%	87.3%	89.3%	88.0%
Spanish Literature	14	100.0%	85.7%	78.6%	81.8%	68.1%
Statistics	637	74.4%	75.2%	50.0%	58.8%	59.4%
Studio Art: 2-D Design	55	87.3%	56.4%	85.7%	90.2%	83.9%
Studio Art: 3-D Design	10	80.0%	50.0%	40.0%	64.4%	66.9%
Studio Art: Drawing	51	88.2%	54.9%	88.2%	96.3%	89.2%
U.S. Government & Politics	1,576	85.4%	68.1%	63.2%	66.2%	52.1%
U.S. History	1,390	77.3%	69.9%	44.4%	62.5%	49.8%
World History	101	86.1%	43.6%	54.2%	71.8%	54.7%
Total	13,550	79.6%	73.2%	58.7%	65.4%	57.2%

Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2018, and AP National Summary Report 2018.

²College Board, AP Students: How to Earn Credit for Your Scores, <https://apstudent.collegeboard.org/creditandplacement/how-to-earn-credit-for-your-scores>, accessed on December 10, 2018.

Figure 3 shows the 2017-18 AP Exam performance of the five largest racial/ethnic groups of public school students at the division, state, and national levels. The gender comparisons are for public and private school students combined at the state and national levels. The percent of AP Exams with scores of 3, 4, or 5 was higher for the state than the percent of VBCPS exams with scores of 3, 4, or 5. African American and Hispanic/Latino students who took AP Exams in VBCPS had a higher percent of exams with scores of 3 or above than their counterparts across the nation.



Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2018, and AP National Summary Report 2018.

AP ENROLLMENT AND EXAM RESULTS BY SCHOOL

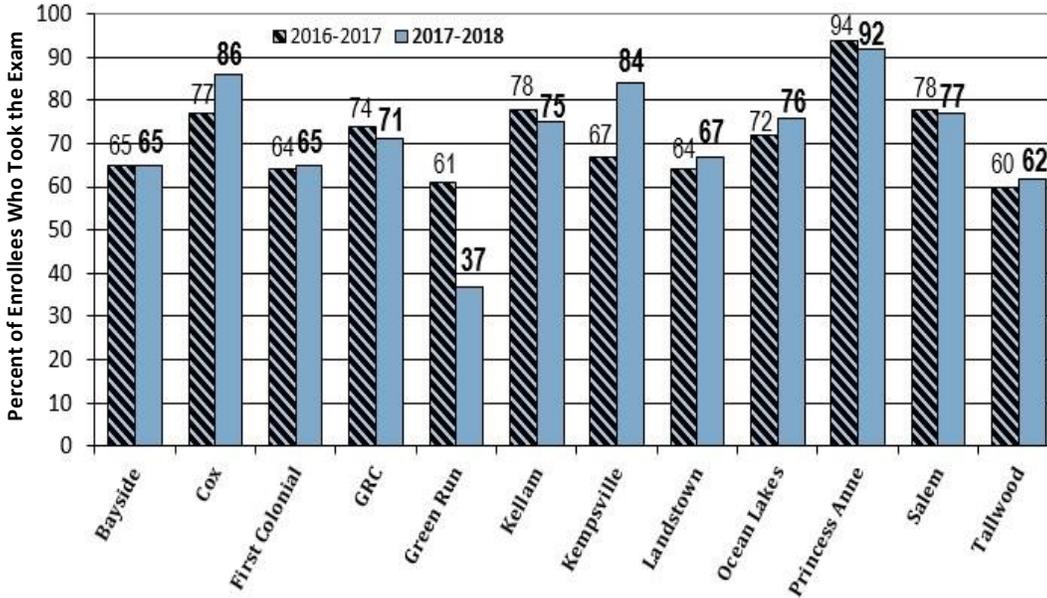
A summary of AP courses taken by students at every VBCPS comprehensive high school and Green Run Collegiate (GRC) during the 2017-18 school year is presented in Table 4. The table shows the number of students enrolled at each school as of September 30, 2017; the number of AP course enrollments (i.e., duplicated count); the number of students who enrolled in at least one AP class (i.e., unduplicated count); the percent of students enrolled in AP courses; and the number of distinct AP courses taken by students at each school. The “Increase/Decrease from 2016-17” columns show changes from the previous year for the percent of students enrolled and the number of courses taken at each school.

Table 4
AP Course Enrollment in 2017-2018 for Virginia Beach High Schools

High School	Total Number of Students	Number of AP Enrollments (Duplicated Count)	Unduplicated Count of Students	Percent of Students Enrolled in AP Classes	Increase/Decrease from 2016-17	Number of Distinct AP Courses Taken	Increase/Decrease from 2016-17
Bayside	1,858	849	524	28%	- 1%	17	no change
Cox	1,801	1,518	685	38%	- 2%	27	- 1
First Colonial	1,779	1,180	609	34%	- 1%	27	+ 2
Green Run Collegiate	334	34	31	9%	no change	8	+ 4
Green Run	1,393	678	395	28%	+ 3%	19	+ 2
Kellam	2,016	2,117	1,008	50%	+ 8%	25	+ 1
Kempsville	1,625	819	510	31%	no change	21	+ 4
Landstown	2,132	1,420	766	36%	+ 2%	27	no change
Ocean Lakes	2,058	1,644	777	38%	+ 1%	29	- 2
Princess Anne	1,758	1,199	663	38%	+ 3%	27	+ 5
Salem	1,695	883	540	32%	- 3%	21	no change
Tallwood	1,939	1,209	725	37%	no change	21	- 2
Total	20,388	13,550	7,233	35%	+ 1%	average=22	no change

Source: VBCPS Student Data Warehouse.

Figure 4
AP Exam Participation for Course Enrollees by High School

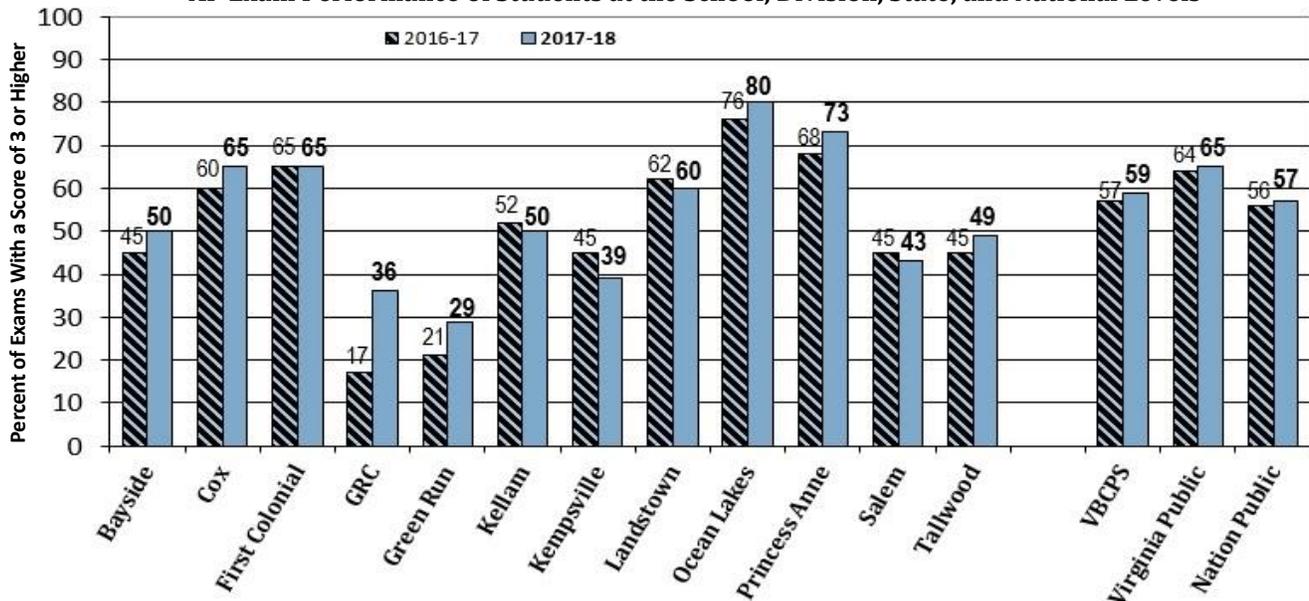


Source: VBCPS Student Data Warehouse.

The graph in Figure 4 shows AP Exam participation rates for Virginia Beach high schools and GRC for the 2016-17 and 2017-18 school years. Exam participation among AP course takers during 2017-18 ranged from 37 percent at Green Run High School to 92 percent at Princess Anne High School; the overall AP Exam participation rate for VBCPS was 73 percent, (as shown in Table 3 on page 3). Cox, Kellam, Kempsville, Ocean Lakes, Princess Anne, and Salem high schools had participation rates that were higher than 73 percent, while Kempsville and Cox saw significant one-year increases in the percent of AP course takers who took exams.

The graph in Figure 5 below shows the percentage of AP Exams that received scores of 3, 4, or 5 at the school, division, state, and national levels during the 2016-17 and 2017-18 school years. Four VBCPS high schools—Ocean Lakes, Princess Anne, Cox, and First Colonial—met or surpassed the percent of AP Exams taken by public school students in Virginia in 2017-18. Seven schools increased the percentage of exams with scores of 3 or above from the previous year.

Figure 5
AP Exam Performance of Students at the School, Division, State, and National Levels



Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2017, and AP National Summary Report 2018.

SUMMARY

During the 2017-18 school year, students in Virginia Beach City Public Schools took over 13,550 Advanced Placement classes, which was an increase of 327 course enrollments from the 2016-17 year. The increase in the number of AP Exams taken by VBCPS students—from 9,631 in 2016-17 to 10,123 in 2017-18—was nearly 500. Approximately 59 percent of the exams taken in 2017-18 received scores of 3, 4, or 5. This was another increase from the previous school year; during 2016-17, about 57 percent of VBCPS exams were scored at 3 or above. The percentage of AP Exams with scores of 3, 4, or 5 taken by VBCPS students is consistently higher than the national percentage but lower than the percent of exams across the state with scores of 3, 4, or 5.