

ASSESSMENT BRIEF

DEPARTMENT OF TEACHING AND LEARNING

DEPARTMENT OF PLANNING, INNOVATION, AND ACCOUNTABILITY – NOVEMBER 18, 2016

Advanced Placement Results for 2015-2016

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ABSTRACT

Enrollment data and exam results from the Virginia Beach City Public Schools (VBCPS) Advanced Placement (AP) program for the 2015-2016 academic year are summarized in this brief. School, division, state, and national level data are included along with information from previous years. In 2015-2016, a total of 6,825 VBCPS students took 12,946 AP courses. This was a 6 percent increase in the number of AP course takers from 2014-2015. In addition, 5,225 Virginia Beach students took 9,712 AP Exams during the 2015-2016 school year, which represented a one-year increase of 6 percent in the number of AP examinees. Over two-fifths of all VBCPS sophomores, juniors, and seniors were enrolled in at least one AP course in 2015-2016, and approximately 74 percent of AP course enrollees in Virginia Beach took the corresponding AP Exam. The percentage of AP Exams administered at VBCPS schools that received scores of 3 or higher was 58.3 percent, which was 4.4 points lower and 2.3 points higher than the percentages for public school students at the state and national levels, respectively. In comparison with the previous school year, half of the 12 Virginia Beach schools that offer AP courses increased their AP enrollment percentages, half of the schools maintained or increased their AP Exam participation rates, and half maintained or increased the percent of AP Exams that were scored at 3, 4, or 5.

KEY TOPICS:

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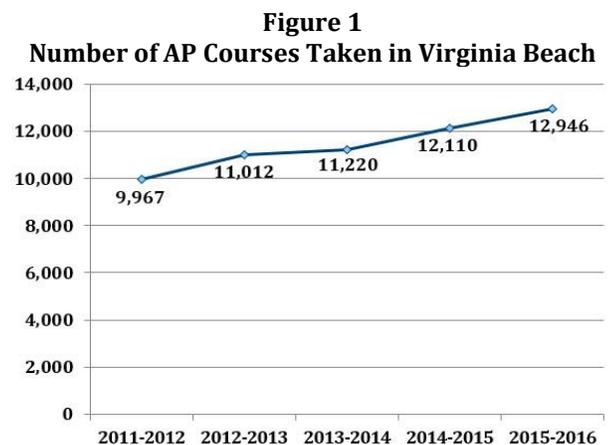
BACKGROUND

For over 50 years, high school students have had the opportunity to take college-level courses and receive college credit through the College Board's Advanced Placement (AP) program. Currently, there are 36 AP courses available; each course culminates with a rigorous exam that is optional for all students. The College Board reports, "college faculty members work alongside AP teachers to help shape the course and exam content and to score exams."¹ The AP program continues to grow each year. During the 2015-2016 school year, over 2.6 million high school students took more than 4.7 million AP Exams.

This report summarizes AP program results for Virginia Beach City Public Schools (VBCPS) and compares AP data at the school, division, state, and national levels. Data were obtained primarily from the VBCPS Student Data Warehouse and AP summary reports from the College Board.

ENROLLMENT IN AP COURSES

During the 2015-2016 school year, VBCPS students were enrolled in 33 of the College Board's 36 AP courses. This included online courses offered by Virtual Virginia (VVA), a Virginia Department of Education program. Figure 1 shows that VBCPS students took nearly 13 thousand AP courses during 2015-2016. Over a two-year period, the number of AP courses taken in VBCPS has increased by over 15 percent.



Source: VBCPS Student Data Warehouse.

A considerable number of students take more than one AP course during a given school year. For the 2015-2016 school year, there were 6,825 VBCPS students who took at least one AP course. This was an increase of about 6

¹ College Board, *AP Higher Education*, <https://aphighered.collegeboard.org>, accessed on October 17, 2016.

percent from the 2014-2015 year. Although some freshmen take AP courses, the vast majority of enrollees are sophomores, juniors, and seniors. During the 2015-2016 year, 41 percent of all VBCPS students in grades 10-12 took one or more AP courses. Table 1 shows the number of VBCPS students by ethnicity and gender who were enrolled in at least one AP course during 2015-2016. The table also includes the percentages that each group of students represented among the total number of students enrolled in AP courses and among all VBCPS high school students as of September 30, 2015. The following ethnic and gender groups had greater representation among Virginia Beach AP course takers than their overall representation among all VBCPS students: Asian/Pacific Islander males and females, Hispanic females, Multiracial females, and White females.

Table 1
AP Course Enrollees and VBCPS High School Membership by Race/Ethnicity and Gender for 2015-2016

Group	African American/Black			Asian/Pacific Islander			Hispanic			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	584	335	919	455	278	733	336	256	592	280	224	504	2,228	1,829	4,057	3,893	2,932	6,825
Percentage of All AP Course Enrollees	8.6	4.9	13.5	6.7	4.1	10.7	4.9	3.8	8.7	4.1	3.3	7.4	32.6	26.8	59.4	57.0	43.0	100
Percentage of Students in Membership (HS)	12.0	12.5	24.6	3.5	3.2	6.7	4.8	4.9	9.7	3.5	3.8	7.3	24.7	26.8	51.4	48.7	51.3	100

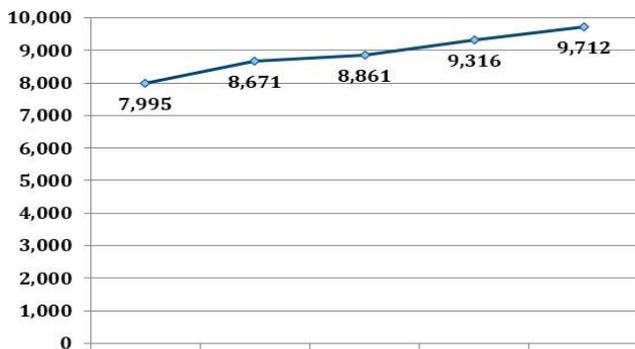
Source: VBCPS Student Data Warehouse.

AP EXAM PARTICIPATION AND PERFORMANCE

Optional summative assessments aligned with AP courses are administered to students in May of each year. Students may register for an AP Exam even if they were not enrolled in the corresponding course. Every AP Exam—except the AP Studio Art portfolio assessments—includes a multiple-choice section and a free-response section.²

Figure 2

Number of AP Exams Taken in Virginia Beach



Source: VBCPS Student Data Warehouse.

The total number of AP Exams taken by VBCPS students for the past five school years is shown in Figure 2. Nearly 400 more exams were taken in 2015-2016 than in 2014-2015. Over the past five years, the number of AP Exams taken in VBCPS has increased by 21.5 percent.

Virginia Beach’s 9,712 AP Exams taken during the 2015-2016 school year were administered to 5,225 students. Table 2 below shows the breakdown of AP examinees for the five largest racial/ethnic groups in VBCPS. For comparison purposes, the VBCPS percentages for the 2014-2015 school year as well as for AP examinees who attended public schools across the state and the nation are also provided.

The number of students who took at least one AP Exam during a school year surpassed 5,000 for the first time in Virginia Beach during 2015-2016. The 2015-2016 total was an increase of 6 percent in the number of AP examinees from the previous year.

There were no noteworthy changes in the percentage of racial/ethnic group representation among all AP examinees from the 2014-2015 to the 2015-2016 year for VBCPS. Despite relatively small one-year percentage decreases for three of the groups, every racial/ethnic group except for students of two or more races had increases in the number of students who took one or more AP Exams during the 2015-2016 school year.

Table 2
Public School AP Examinees by Race/Ethnicity – Division, State, and National Levels

Racial/Ethnic Group	2014-2015		2015-2016	
	Virginia Beach City Public Schools (n=4,928)	Virginia Beach City Public Schools (n=5,225)	Public Schools Virginia (n=70,796)	Public Schools National (n=2,248,110)
	Percent of Total	Percent of Total	Percent of Total	Percent of Total
African American/Black	10.7%	10.4%	10.1%	7.6%
Asian/Pacific Islander	11.9%	11.7%	13.5%	11.7%
Hispanic	8.4%	8.4%	10.9%	23.3%
Two or More Races	7.6%	6.8%	6.2%	4.2%
White	61.0%	62.3%	57.5%	51.2%

Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2016, and AP National Summary Report 2016.

Notes: n = total number tested. Column percentages do not add up to 100 because some racial/ethnic groups were excluded.

²College Board, AP Central: AP Exams, <http://apcentral.collegeboard.com/apc/public/exam/index.html>, accessed on October 18, 2016.

Table 3 contains a list of the AP courses that VBCPS students were enrolled in during the 2015-2016 school year. The table includes the following data for each course: the title of the course; the number of enrollees; the percentage of students who earned an A or B; the percentage of enrollees who took the course exam; and the percentage of exams that were scored at 3, 4, or 5 on the College Board’s five-point scale for AP Exams. According to the College Board, the “College Course Grade Equivalent” for an AP 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.³ The College Board also states that “nearly all colleges and universities in the United States—as well as many institutions in more than 60 other countries—grant credit and placement for AP scores or acknowledge AP scores in the admission process.”⁴ Over 58 percent of the AP Exams taken in Virginia Beach received a score of 3, 4, or 5; this was 4.4 percentage points lower than the state public school percentage, and 2.3 points higher than the percentage of AP Exams taken by public school students across the nation that were scored at 3 or above. Out of 12,946 VBCPS course enrollees, 78.5 percent received a grade of A or B and 73.7 percent of the enrollees chose to take the AP Exam at the end of the course.

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 2015-2016

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	148	86.5%	79.7%	76.3%	75.1%	59.6%
Biology	697	73.3%	69.0%	46.5%	63.7%	59.3%
Calculus AB	728	74.0%	79.7%	54.3%	63.2%	58.0%
Calculus BC	262	88.6%	88.6%	68.7%	81.4%	80.7%
Chemistry	384	69.8%	77.9%	45.2%	55.5%	50.8%
Chinese Language & Culture	4	100.0%	100.0%	100.0%	96.0%	93.6%
Comparative Government & Politics	63	81.0%	74.6%	72.3%	55.1%	61.4%
Computer Science A	208	85.1%	45.7%	50.0%	65.2%	63.2%
English Language & Composition	1,043	78.2%	82.7%	64.6%	62.8%	53.0%
English Literature & Composition	786	82.4%	64.4%	66.7%	63.2%	51.7%
Environmental Science	880	81.5%	53.9%	42.1%	46.1%	44.8%
European History	892	76.7%	80.8%	42.2%	49.4%	50.3%
French Language & Culture	65	93.9%	87.7%	75.0%	74.6%	72.1%
German Language & Culture	17	70.6%	58.8%	64.3%	65.4%	67.8%
Human Geography	1,314	76.9%	75.5%	56.8%	61.7%	51.1%
Japanese Language & Culture	10	90.0%	80.0%	87.5%	74.7%	75.4%
Latin	34	100.0%	91.2%	68.8%	60.2%	61.8%
Macroeconomics	28	89.3%	96.4%	64.3%	65.7%	54.1%
Microeconomics	29	82.8%	89.7%	73.1%	73.6%	64.8%
Music Theory	37	83.8%	78.4%	63.3%	59.1%	58.8%
Physics C: Electricity & Magnetism	81	70.4%	67.9%	100.0%	75.8%	68.6%
Physics C: Mechanics				71.9%	69.5%	75.8%
Physics 1	327	87.5%	70.0%	52.3%	35.2%	37.0%
Physics 2	20	75.0%	20.0%	60.0%	39.7%	58.9%
Psychology	933	77.0%	80.0%	79.2%	70.0%	63.5%
Spanish Language & Culture	197	85.3%	87.3%	90.5%	89.7%	89.2%
Spanish Literature & Culture	13	92.3%	46.2%	85.7%	73.0%	67.4%
Statistics	753	65.7%	66.8%	58.3%	57.4%	59.5%
Studio Art: 2-D Design	64	92.2%	60.9%	84.6%	86.9%	81.7%
Studio Art: 3-D Design	4	75.0%	75.0%	100.0%	80.3%	73.2%
Studio Art: Drawing	70	81.4%	38.6%	94.1%	85.4%	82.6%
U.S. Government & Politics	1,436	87.4%	76.8%	58.9%	63.4%	49.7%
U.S. History	1,336	73.8%	76.9%	51.1%	61.3%	50.3%
World History	83	84.3%	31.3%	42.9%	65.4%	50.1%
Total	12,946	78.5%	73.7%	58.3%	62.7%	56.0%

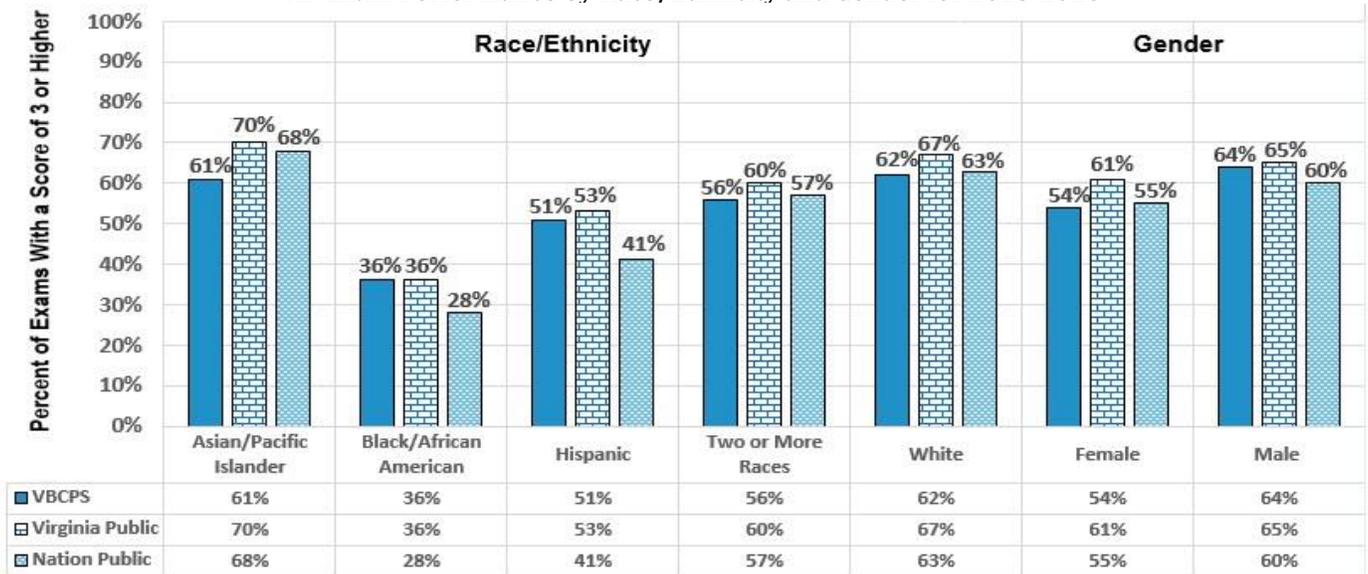
Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2016, and AP National Summary Report 2016.

³ College Board, AP Higher Education: AP Exam Scores, <https://aphighered.collegeboard.org/exams/scoring>, accessed on November 8, 2016.

⁴ College Board, AP Students: How to Earn Credit for Your Scores, <https://apstudent.collegeboard.org/creditandplacement/how-to-earn-credit-for-your-scores>, accessed on November 8, 2016.

Figure 3 provides comparisons between the percent of AP Exams with scores of 3, 4, or 5 for the five largest racial/ethnic groups of public school students in Virginia Beach, the state, and the nation. Figure 3 also shows the same data by gender for VBCPS and students who attended public and private schools across the state and nation. With one exception, the percentages for the state groups were higher than the percentages of all of the counterpart groups at the division and national levels. Although the percent of exams with scores of 3 or above taken by African American students in Virginia Beach matched the state percentage for African Americans, the percent of exams scored at 3, 4, or 5 taken by African Americans lagged behind the percentages for other groups.

Figure 3
AP Exam Performance by Race/Ethnicity and Gender for 2015-2016



Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2016, and AP National Summary Report 2016.

AP ENROLLMENT AND EXAM RESULTS BY SCHOOL

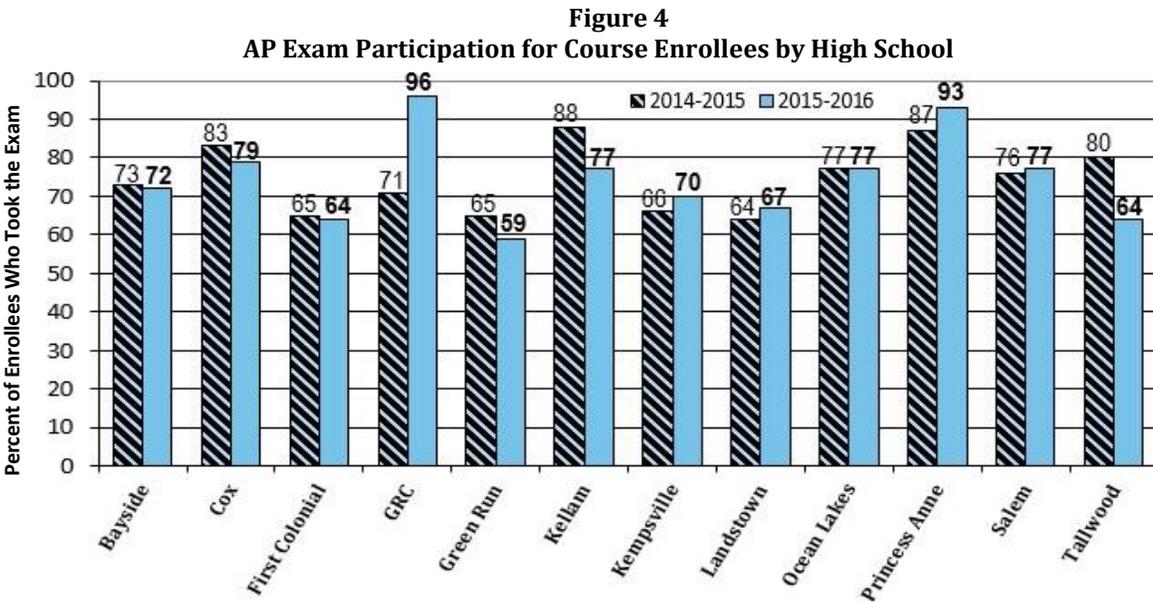
Enrollment data for AP courses taken during the 2015-2016 school year at the 11 comprehensive high schools in Virginia Beach and Green Run Collegiate (GRC) are shown in Table 4 below. The table shows the number of students enrolled at each school as of September 30, 2015; the number of AP course enrollments (i.e., duplicated count); the number of students who enrolled in one or more AP courses (i.e., unduplicated count); the percent of students at each school who enrolled in an AP course; and the number of AP courses taught at each school. Changes from the previous school year for the percent of students enrolled and the number of courses taught at each school are provided in the “Increase/Decrease from 2014-2015” columns.

Table 4
AP Course Enrollment in 2015-2016 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 Courses	Increase/Decrease from 2014-2015	Number of AP Courses Taught	Increase/Decrease from 2014-2015
Bayside	1,822	876	493	27%	- 1%	18	+ 1
Cox	1,873	1,562	737	39%	no change	28	+ 3
First Colonial	1,902	1,279	645	34%	no change	27	no change
Green Run Collegiate	280	24	24	9%	- 3%	2	no change
Green Run	1,523	661	354	23%	- 1%	16	- 2
Kellam	2,011	1,501	759	38%	+ 5%	26	+ 1
Kempsville	1,456	629	362	25%	+ 5%	17	+ 1
Landstown	2,209	1,233	665	30%	- 5%	23	no change
Ocean Lakes	2,114	1,521	756	36%	+ 3%	27	+ 3
Princess Anne	1,777	1,269	706	40%	+ 4%	27	no change
Salem	1,715	1,045	604	35%	+ 7%	22	+ 2
Tallwood	1,949	1,346	720	37%	+ 3%	23	- 3
Total	20,631	12,946	6,825	33%	+ 2%	average=21	no change

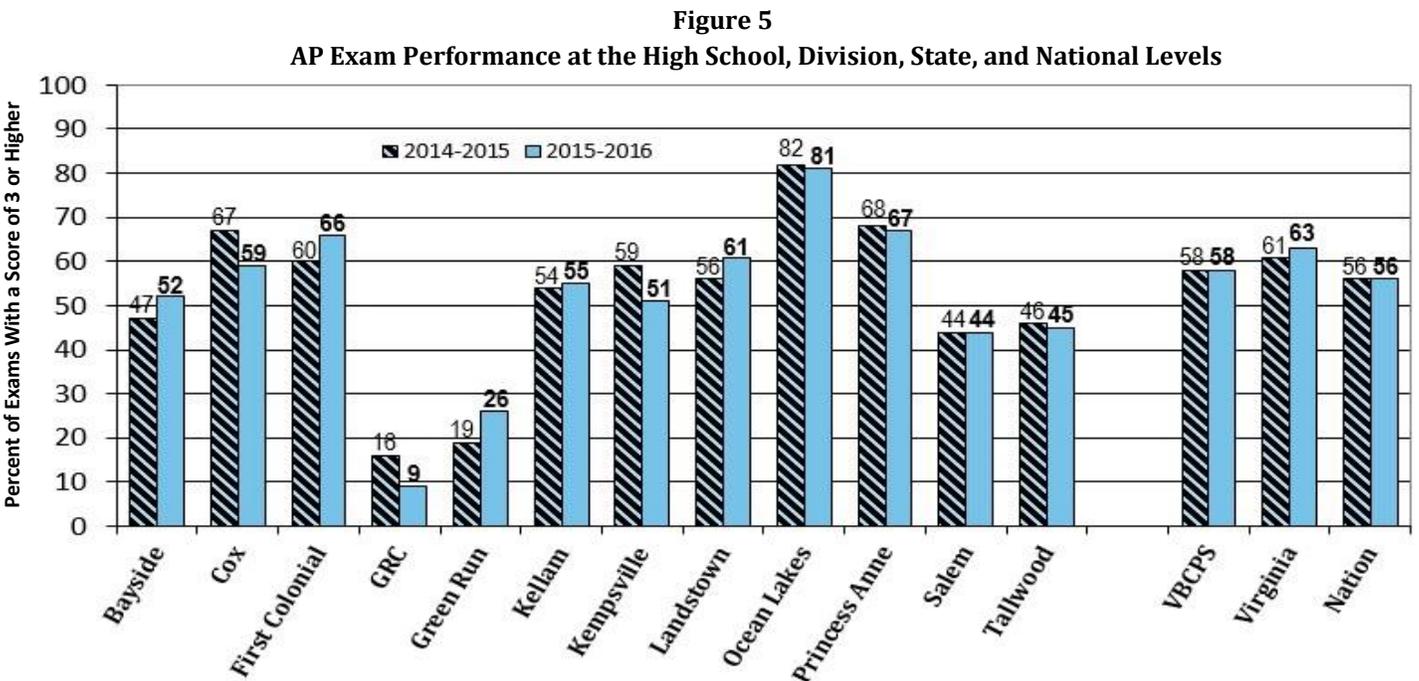
Source: VBCPS Student Data Warehouse.

Figure 4 shows the AP Exam participation rates for the 11 VBCPS high schools and GRC for the 2014-2015 and 2015-2016 school years. Exam participation in 2015-2016 ranged from 59 percent of the 661 AP enrollments at Green Run High School to 96 percent of the 24 enrollments at GRC. Princess Anne High School also had a very high exam-taking rate at 93 percent of over 700 AP course enrollments. Princess Anne and GRC joined Kempsville, Salem, Ocean Lakes, and Landstown high schools as the only VBCPS schools that either maintained or increased the rate of AP Exam participation from 2014-2015 to 2015-2016.



Source: VBCPS Student Data Warehouse.

Two-year comparisons of the percentage of AP Exams with scores of 3 or higher for VBCPS schools and public school students across the state and nation are presented in Figure 5. Percentages ranged from 9 percent at GRC to 81 percent at Ocean Lakes High School. The percent of exams with scores of 3-5 improved at Bayside, First Colonial, Green Run, Kellam, and Landstown high schools, while First Colonial, Ocean Lakes, and Princess Anne high schools recorded higher percentages of AP Exams with scores of 3 or higher than the percentage of AP Exams with scores of 3 or higher taken by public school students in Virginia.



Sources: VBCPS Student Data Warehouse, AP Virginia Summary Report 2016, and AP National Summary Report 2016.

SUMMARY

The VBCPS Advanced Placement program continued to grow during the 2015-2016 school year. There were 6 percent more students enrolled in at least one AP course than during the previous school year, and there was a 6 percent increase in the number of AP examinees. The 6,825 Virginia Beach AP course takers included 41 percent of all VBCPS students in grades 10-12. Out of 9,712 AP Exams administered for the 33 different AP courses offered in Virginia Beach, 58 percent received scores of 3 or higher.