

30.8%

Participation Rate

among BCPS 11th and 12th graders, a decrease of 0.5% from the previous year

56.9%

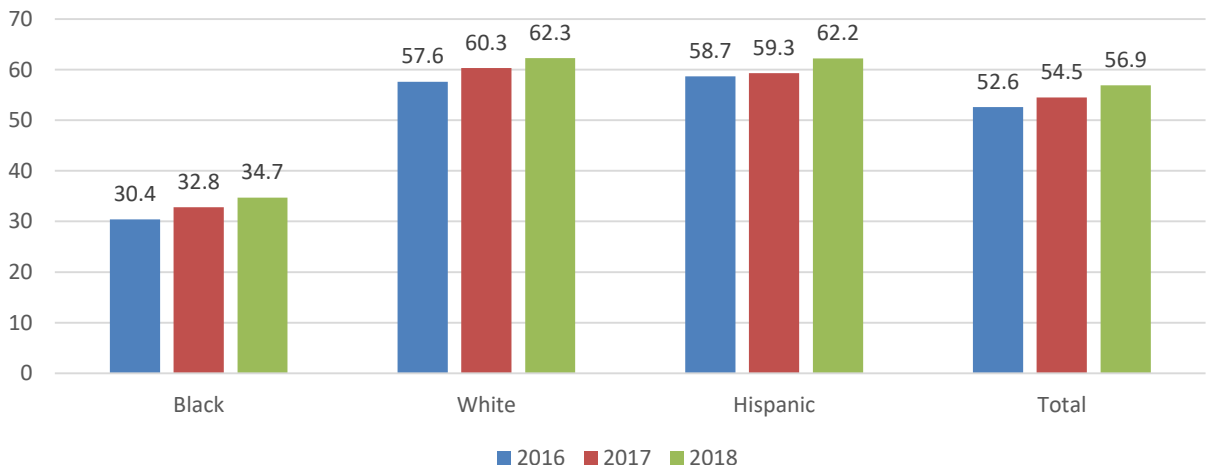
Exam Passing Rate

with students earning scores of 3 or higher, an increase of 2.4% over the previous year

AP at a Glance

- In 2017-18, 17,727 BCPS high school students completed 32,564 AP tests, an average of 1.8 exams per participant.
- The AP exam **passing rate for the District increased** over the past three years from 52.6%, 54.5%, and 56.9%. This marks four consecutive years the passing rate has exceeded 50%.
- The **passing rate** for each of the three largest racial/ethnic groups, Black, White and Hispanic students, **increased** for the third consecutive year.
- The percent of Hispanic students passing increased by 2.9 percentage points and the percent of White students passing increased by 2 percentage points.
- Computer Science AP exam participation increased again from 1,081 students in 2016-17 to 1,765 students in 2017-18. Computer Science A exam accounted for 316 students and College Board's newest AP exam Computer Science Principles accounted for 1,449 students.
- Psychology continues as the most popular AP course, with 4,295 students testing on that exam.
- In 2017-18, the District had a total of 3,943 students who earned an AP Scholar Award. AP Scholar Awards are granted to students who receive scores of 3 or higher on three or more AP exams.

AP Exam Passing Rates, 2016-2018



Additional Resources

A detailed report and data tables specific to AP in Broward County may be accessed at:

<https://www.browardschools.com/sar>

For further information on the AP program, see:

<https://apcentral.collegeboard.org>

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

**DANIEL GOHL
CHIEF ACADEMIC OFFICER**

Signatures on File

September 14, 2018

TO: High School Principals
Center Principals
Charter High School Principals

FROM: Daniel F. Gohl
Chief Academic Officer

VIA: Valerie S. Wanza, Ph.D.
Chief School Performance & Accountability Officer

SUBJECT: **ADVANCED PLACEMENT RESULTS, 2015-16 THROUGH 2017-18**

The 2017-18 Advanced Placement (AP) results as of August 16, 2018 for Broward County Public Schools (BCPS) students are detailed in the attached Brief and appendices. Highlighted findings include:

- The passing rate increased by 2.4 percentage points during the 2017-18 school year, from 54.5% in 2016-17 to the current rate of 56.9%. This marks the fourth consecutive year the passing rate exceeded 50%.
- Computer Science Principles AP exam participation increased from 804 exams in 2016-17 to 1,449 exams in 2017-18. This is an increase of 645 exams, by far the largest increase of any other subject exam.
- AP course participation in BCPS decreased slightly for all grade levels from 2017 to 2018. This year 17,727 high school students completed 32,564 AP exams, averaging 1.8 exams per participant.
- Between different racial/ethnic groups, achievement gaps have varied minimally over the past three years. Passing rates have increased across the board for all three racial/ethnic groups (Hispanic, Black, and White).
- AP Scholar Awards are granted to students who receive scores of 3 or higher on three or more AP exams at any point in their high school career. In 2017-18 the District had a total of 3,943 students who earned an AP Scholar Award.

If you have any comments concerning this memorandum or the attached brief, please contact **Richard Baum, Director, Student Assessment & Research at 754-321-2500**. For questions about AP courses or staff training, please contact **Bob McKinney, Advanced Studies Coordinator at 754-321-2119**.

VSW/DG/RGB/RAA/MJJ/rs
Attachments

cc: School Board Members
Senior Leadership Team
Cadre Directors
Jody Perry, Director, Charter School Support



Assessment Brief

©2018, The School Board of Broward County, Florida

Number 190

Report from the Office of the Superintendent

September 2018

ADVANCED PLACEMENT PROGRAM ENROLLMENT AND RESULTS, 2015-16 THROUGH 2017-18

This Brief presents enrollment rates and exam results for Broward County Public Schools' (BCPS) Advanced Placement (AP) program as of August 16, 2018. The AP program provides an opportunity for high school students to experience college-level coursework and demonstrate mastery of content on national, subject-specific examinations. AP exams are scored on a scale of 1 to 5, and many colleges and universities will award course credit for scores of 3 or higher.¹

Student participation rates, overall and by race/ethnicity

Table 1

High School Enrollment² and AP Exam Participation in BCPS, 2015-16 through 2017-18

Grade	High School Enrollment	AP Enrollment	AP Exams	AP Course Participation Rate
2015-16				
Total	78,171	18,543	34,047	23.7
9th	19,703	2,840	2,917	14.4
10th	19,948	4,306	6,561	21.6
11th	18,933	5,663	11,495	29.9
12th	19,587	5,734	13,074	29.3
2016-17				
Total	78,667	19,636	33,059	25.0
9th	19,588	2,582	2,454	13.2
10th	19,987	4,806	6,694	24.0
11th	19,465	6,218	11,462	31.9
12th	19,627	6,030	12,449	30.7
2017-18				
Total	78,697	19,170	32,564	24.4
9th	19,539	2,363	2,274	12.1
10th	19,880	4,705	6,599	23.7
11th	19,570	6,106	11,438	31.2
12th	19,708	5,996	12,249	30.4

¹ For further information on the AP program, see <http://apcentral.collegeboard.com/home>

² Enrollment calculated using BCPS benchmark day enrollment data which is recorded on the 20th day of school.

As shown in Table 1, BCPS' total high school enrollment **increased** slightly by 30 (less than 1%) students since the 2016-17 school year, while AP participation **decreased** by 466 (2.4%) students. Eleventh grade consistently has the highest participation, followed by 12th graders. The **decrease** in students participating in AP courses led to a **decrease** in the number of exams taken by 495 exams.

AP participants completed, on average, 1.8 AP exams in 2017-18. The average number of AP exams taken is unchanged for the third consecutive year (see Table 2). Asian participants completed more exams on average (2.4) than students of any other race/ethnicity. Black students tended to take slightly fewer exams (1.6) than the district average. Hispanic students participated at the district average of 1.8 exams per student, while White students participated just above the average, at 2.0 exams. Across the three years reviewed, while there has been slight variability in the number of program participants and exams administered, there has been almost no variation in the average number of exams taken in aggregate or by demographic group.

Table 2
Number of AP Students Tested, Number of AP Examinations, and Average Number of Exams by Race/Ethnicity in Broward County, 2015-16 through 2017-18

Race/ Ethnicity	2015-16			2016-17			2017-18		
	N Tested	n Exams	Avg. n Exams	N Tested	n Exams	Avg. n Exams	N Tested	N Exams	Avg. n Exams
Broward	18,543	34,047	1.8	18,084	33,059	1.8	17,727	32,564	1.8
Asian	1,369	3,181	2.3	1,357	3,209	2.4	1,358	3,291	2.4
Black	4,337	6,957	1.6	4,281	6,662	1.6	4,155	6,496	1.6
Hispanic	6,242	11,232	1.8	6,239	11,079	1.8	6,234	11,139	1.8
Multi-ethnic	572	1,076	1.9	547	1,054	1.9	575	1,066	1.8
Native American	65	108	1.7	62	122	2.0	77	161	2.1
White	5,958	11,493	1.9	5,597	10,932	2.0	5,313	10,390	2.0

Average scores and passing rates

Table 3 (next page) displays three-year trend data for AP average scores and passing rates for Broward, Florida, and the nation. Over the three-year period there has been little movement in mean scores at the local, state, or national levels. Historically, BCPS' average scores have been slightly higher than Florida's average scores but BCPS and Florida students have scored slightly below the national average.

From 2015-16 to 2017-18, Broward's passing rate increased by 4.3 percentage points, from 52.6% to 56.9%. During the same period, Florida overall passing rate increased by 4.0 percentage points, from 48.5% to 52.5%, while the national rate increased by 2.5 percentage points (from 56.0% to 58.5%). Thus, the gaps between the national passing rate and Florida's and Broward's passing rates have narrowed over the three-year period.

Table 3

Average AP Exam Scores and Passing Rates, 2015-16 through 2017-18

	2015-16		2016-17		2017-18	
	Mean Score	Passing Rate	Mean Score	Passing Rate	Mean Score	Passing Rate
Broward	2.7	52.6	2.7	54.5	2.8	56.9
Florida	2.6	48.5	2.6	49.4	2.7	52.5
Nation	2.8	56.0	2.8	56.1	2.9	58.5

Source for Florida, National data: *District Summary with Comparable Groups* from College Board secure server.

Average scores and passing rates for the district’s largest racial/ethnic groups

Figure 1 shows the passing rates for each of the three largest racial/ethnic groups. All three groups have increased their passing rate for three consecutive years. From the 2016 – 17 school year to the 2017 – 18 school year Black students’ passing rate increased by 1.9 percentage points, White students’ passing rate increased by 2.0 percentage points, and Hispanic students’ passing rate increased by 2.9 percentage points.

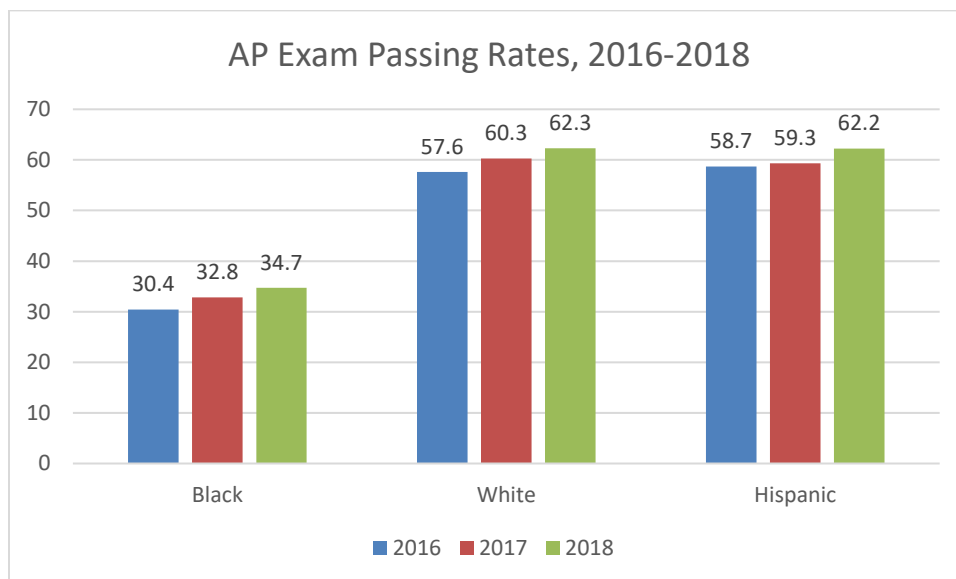


Figure 1. AP exam passing rates for three largest racial/ethnic groups, 2016 through 2018.

Table 4 (next page) displays performance on AP exams across student racial/ethnic groups. Performance differed across racial/ethnic groups. Asian students consistently earned the highest scores while Black students consistently earned the lowest scores of all the racial/ethnic groups for the past three years. Asian, Hispanic, Multi-ethnic, and White students maintained passing rates above 50% over the past three years. The proportion of Black students passing an AP exam increased by 1.9 percentage points over the past year, from 32.8 to 34.7 percent. Additionally,

the mean score of Black students exceeded 2.0 for the third consecutive year and increased each year (2.06 in 2016, 2.09 in 2017, and 2.17 in 2018).

Table 4

AP Passing Rates and Mean Scores in BCPS by Race/Ethnicity, 2015-16 through 2017-18

Ethnicity	2015-16			2016-17			2017-18		
	<i>n</i> Exams 3+	% Exams 3+	Mean Score	<i>n</i> Exams 3+	% Exams 3+	Mean Score	<i>n</i> Exams 3+	% Exams 3+	Mean Score
Broward	17,919	52.6	2.70	18,002	54.5	2.73	18,514	56.9	2.82
Asian	1,954	61.4	2.95	2,008	62.6	2.99	2,200	66.8	3.13
Black	2,115	30.4	2.06	2,187	32.8	2.09	2,251	34.7	2.17
Hispanic	6,596	58.7	2.90	6,571	59.3	2.89	6,931	62.2	3.01
Multi-ethnic Native	587	54.6	2.72	588	55.8	2.73	563	52.8	2.69
American	51	47.2	2.59	60	49.2	2.54	87	54.0	2.80
White	6,616	57.6	2.82	6,587	60.3	2.89	6,478	62.3	2.95

Performance gaps between Black and Hispanic students and their White peers have been a long-standing concern. Comparing last year to this year, the gap in passing rates between Black and White students increased slightly by 0.1 percentage points, while the gap between Hispanic and White students decreased by 0.9 percentage points (Table 5). Notably, **the gap between Hispanic and White students decreased from 1.0 to just 0.1 percentage points from 2016-17 to 2017-18.**

Table 5

Differences in Percent of AP Exams Scored 3 or Above in BCPS by Race/Ethnicity, 2015-16 through 2017-18

Group	Percent of Exams 3 or Above			Change in gap 2016-17 to 2017-18
	2015-16	2016-17	2017-18	
Black	30.4	32.8	34.7	
<i>Black and White Gap</i>	27.2	27.5	27.6	0.1
White	57.6	60.3	62.3	
<i>White and Hispanic Gap</i>	-1.1	1.0	0.1	-0.9
Hispanic	58.7	59.3	62.2	

Table 6 shows the gaps in the mean exam scores between Black and Hispanic students and White students. In 2017-18, **Hispanic students' mean AP exam score was slightly higher than White students', by .06 points.** Black students' mean score was .78 points lower than White students'. **The Black-White score gap decreased by .02 points, while the Hispanic-White gap decreased by .06 points, in favor of the non-White students.**

Table 6

Differences in Mean AP Exam Scores in BCPS by Race/Ethnicity, 2015-16 through 2017-18

Group	Mean Exam Score			Change in gap 2016-17 to 2017-18
	2015-16	2016-17	2017-18	
Black	2.06	2.09	2.17	
<i>Black and White Gap</i>	.76	.80	.78	-.02
White	2.82	2.89	2.95	
<i>White and Hispanic Gap</i>	-.08	.00	-.06	-.06
Hispanic	2.90	2.89	3.01	

Relationship between exam passing rates and course grades

Figure 2 (next page) examines the relationship between AP exam passing rates and course grades. It displays, by AP subject area, the percent of students earning an exam score of 3 or higher versus the percent of students earning a course grade of A or B. The subjects are sorted in the figure by magnitude of discrepancy between AP exam passing rate and course grade rate – from the largest discrepancy to the smallest. Only subjects with more than 20 students who have exam scores and course grades are included.

There were 30 subjects where course grades outpaced AP exam performance. This difference ranged from 4 to 46 percentage points. Course grades surpassed AP exam performance in fourteen courses by at least 20 percentage points. Those courses were: Music Theory, Physics 1, Microeconomics, Studio Art: 3-D Design Portfolio, European History, Statistics, Environmental Science, Capstone Research, US Government and Politics, English Literature and Composition, Macroeconomics, Computer Science Principles, United States History, and Chemistry. The large discrepancies between class grades and exam passing rates in these courses suggest expectations for these classes are not aligned well with the rigor of the exams. Conversely, four subjects saw more students passing the AP exam than earning an A or B in coursework: Studio Art: 2-D Design Portfolio, Spanish Literature, Italian Language & Culture, and Spanish Language.

Figure 2 AP Exam Passing Rates and Course Grades, 2017-18

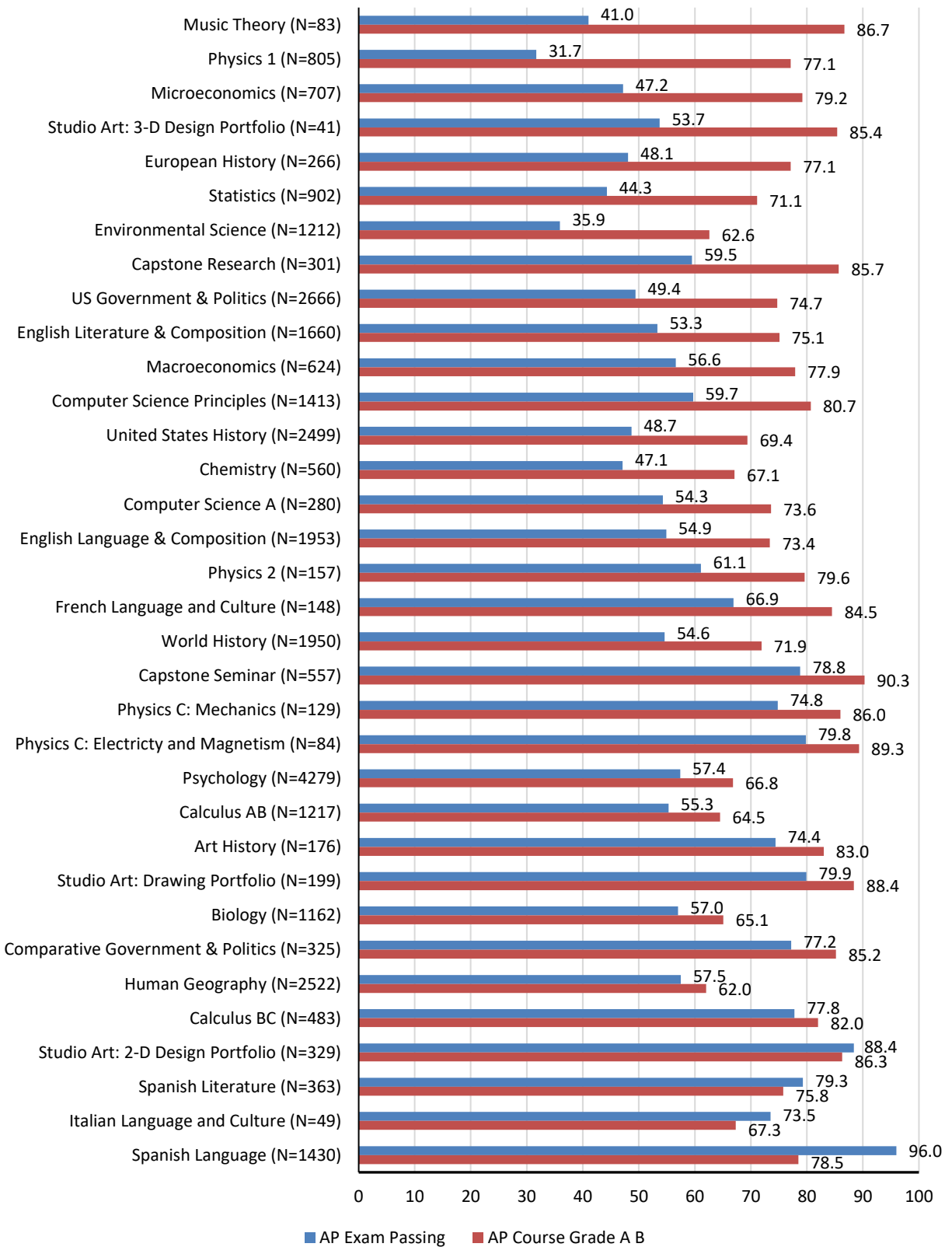


Figure 2: AP Exam Passing Rates and Course Grades of A or B, 2017-18.

The most popular AP subjects – based on exam participation – were Psychology (4,279 students), US Government and Politics (2,666), Human Geography (2,522), US History (2,499), English Language and Composition (1,953), and World History (1,950). The subjects with the highest exam passing rates were Spanish Language (96.0%), Studio Art: 2-D Design Portfolio (88.4%), and Studio Art: Drawing Portfolio (79.9%). Conversely, the subjects with the lowest exam passing rates were Physics 1 (31.7%), Environmental Science (35.9%), and Music Theory (41.0%).

AP Scholars

The AP Scholar Awards recognize high school students who have demonstrated praiseworthy college-level achievement on AP exams. These awards are academic distinctions for students to cite among their credentials. The AP Scholar designation is granted to students who receive scores of 3 or higher on three or more AP Exams and is based on all exams taken this year and in previous years. In school year 2017-18 the District had a total of 3,943 AP Scholars, with eight schools having more than 200 students recognized with this distinction. The schools with the most AP Scholars were Cypress Bay High School (847 scholars), Marjory Stoneman Douglas High School (401 scholars) West Broward High School (331 scholars), Nova High School (266 scholars), Western High School (263 scholars), Cooper City High School (249 scholars), Fort Lauderdale High School (217 scholars), and Pompano Beach Institute of International Studies (209 scholars).

Summary

Across the three years examined, overall high school enrollment increased while the number of students participating in AP testing decreased slightly. The average number of exams taken by a student was unchanged, and the proportion of exams passed with a score of 3 or higher increased by about two percentage points each year.

Eleventh grade consistently had the highest participation, followed by twelfth grade. Computer Science Principles AP exam participation increased from 804 exams in 2016-17 to 1,449 exams in 2017-18. This is an increase of 645 exams, by far the largest increase of all exams.

The exam passing rate increased for the three main ethnic groups across the past three years, with 34.7 percent of Black students, 62.2 percent of Hispanic students, and 62.3 percent of White students achieving a score of 3 or higher on AP exams. While passing scores went up for all three groups, the gap between Black students and White students was virtually unchanged compared to the previous year, while the gap between Hispanic students and White students decreased. Hispanic students' average score actually surpassed that of White students.

Fourteen courses showed a discrepancy of twenty percentage points or more between students earning an A or B in the course and those passing the corresponding AP exam. This may suggest a misalignment of classroom expectations with exam knowledge requirements in those courses.

The District had a total of 3,943 AP Scholars this school year. The AP Scholar designation is given to students who receive scores of 3 or higher on three or more AP Exams. At eight schools this honor was bestowed on more than 200 students.

Appendices

Additional school- and exam-level data are provided in the appendices. Appendix A provides three years of districtwide passing rates by AP exam. Appendix B provides 2017-18 passing rates for each AP exam by school. Appendix C provides aggregate AP exam results by school over a three-year period.

Prepared by

Michael J. Jernigan, Ph.D., Database Researcher II, Student Assessment and Research

The School Board of Broward County, Florida

Nora Rupert, Chair

Heather P. Brinkworth, Vice Chair

Robin Bartleman

Abby M. Freedman

Patricia Good

Donna P. Korn

Laurie Rich Levinson

Ann Murray

Dr. Rosalind Osgood

Robert W. Runcie, Superintendent of Schools

The School Board of Broward County, Florida prohibits any policy or procedure that results in discrimination on the basis of age, color, disability, gender, national origin, marital status, race, religion, or sexual orientation.