

28.2%

Participation Rate

among BCPS 11th and 12th graders, a decrease of 2.6% from the previous year

59.0%

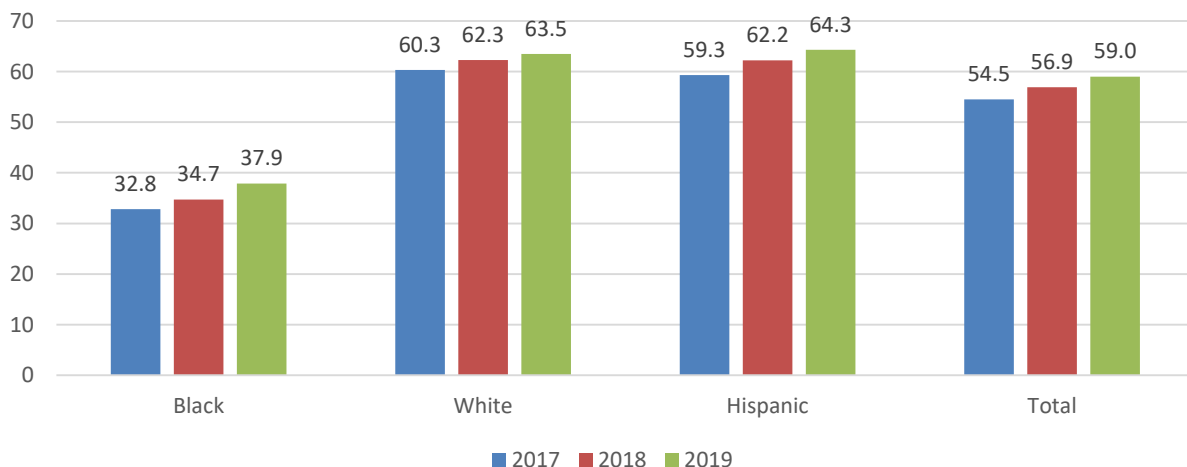
Exam Passing Rate

with students earning scores of 3 or higher, an increase of 2.1% over the previous year

AP at a Glance

- In 2018-19, 16,584 BCPS high school students completed 30,104 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 54.5%, 56.9%, and 59.0%. This marks five 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 fourth consecutive year.
- The percent of Hispanic students passing increased by 2.1 percentage points and the percent of Black students passing increased by 3.2 percentage points.
- Comparing last year to this year, the gap in passing rates between Black and White students decreased by 2.0 percentage points.
- Computer Science AP exam participation increased again from 1,765 students in 2017-18 to 2,154 students in 2018-19. Computer Science A exam accounted for 354 students and Computer Science Principles exam accounted for 1,800 students.
- Psychology continues as the most popular AP course, with 3,393 students testing on that exam.
- In 2018-19, the District had a total of 3,956 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, 2017-2019



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 20, 2019

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, 2016-17 THROUGH 2018-19**

The 2018-19 Advanced Placement (AP) results as of September 5, 2019 for Broward County Public Schools (BCPS) students are detailed in the attached Brief and appendices. Highlighted findings include:

- The passing rate increased by 2.1 percentage points during the 2018-19 school year, from 56.9% in 2017-18 to the current rate of 59.0%. This marks the fifth consecutive year the passing rate exceeded 50%.
- Computer Science Principles AP exam participation increased from 1,449 exams in 2017-18 to 1,800 exams in 2018-19. This is an increase of 351 exams, by far the largest increase of any other subject exam.
- AP exam participation in BCPS decreased for all grade levels from 2018 to 2019. This year 16,584 high school students completed 30,104 AP exams, averaging 1.8 exams per participant.
- The 2018-19 results show a 2.0 percentage point decrease in the gap between Black and White students. Passing rates have increased across the board for the three largest 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 2018-19 the District had a total of 3,956 students earn 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
Director, Charter School Support



Assessment Brief

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Number 195

Report from the Office of the Superintendent

September 2019

ADVANCED PLACEMENT PROGRAM ENROLLMENT AND RESULTS, 2016-17 THROUGH 2018-19

This Brief presents enrollment rates and exam results for Broward County Public Schools' (BCPS) Advanced Placement (AP) program as of September 5, 2019. 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, 2016-17 through 2018-19

Grade	High School Enrollment	AP Enrollment	AP Exams	AP Course Participation Rate
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
2018-19				
Total	78,346	17,367	30,104	22.2
9th	19,803	2,254	2,254	11.4
10th	19,535	4,110	5,958	21.0
11th	19,332	5,192	10,018	26.9
12th	19,676	5,811	11,873	29.5

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 **decreased** slightly by 351 (less than 1%) students since the 2017-18 school year, while AP participation **decreased** by 1,803 (9.4%) students. Twelfth grade has consistently maintained approximately a 30% participation rate, while the other three grades show a decline. The **decrease** in students participating in AP courses led to a **decrease** in the number of exams taken by 2,460 exams.

AP participants completed, on average, 1.8 AP exams in 2018-19. The average number of AP exams taken is unchanged for the third consecutive year (see Table 2). Asian participants completed more exams on average (2.3) than students of any other race/ethnicity. Black students tended to take slightly fewer exams (1.5) 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 1.9 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, 2016-17 through 2018-19

Race/ Ethnicity	2016-17			2017-18			2018-19		
	N Tested	n Exams	Avg. n Exams	N Tested	n Exams	Avg. n Exams	N Tested	N Exams	Avg. n Exams
Broward	18,084	33,059	1.8	17,727	32,564	1.8	16,584	30,104	1.8
Asian	1,357	3,209	2.4	1,358	3,291	2.4	1,380	3,237	2.3
Black	4,281	6,662	1.6	4,155	6,496	1.6	3,711	5,748	1.5
Hispanic	6,239	11,079	1.8	6,234	11,139	1.8	6,129	10,848	1.8
Multi-ethnic	547	1,054	1.9	575	1,066	1.8	533	1,001	1.9
Native American	62	122	2.0	77	161	2.1	64	125	2.0
White	5,597	10,932	2.0	5,313	10,390	2.0	4,767	9,145	1.9

Average scores and passing rates for the District's largest racial/ethnic groups

Figure 1 (next page) 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 2017 – 18 school year to the 2018 – 19 school year Black students' passing rate increased by 3.2 percentage points, White students' passing rate increased by 1.2 percentage points, and Hispanic students' passing rate increased by 2.1 percentage points.

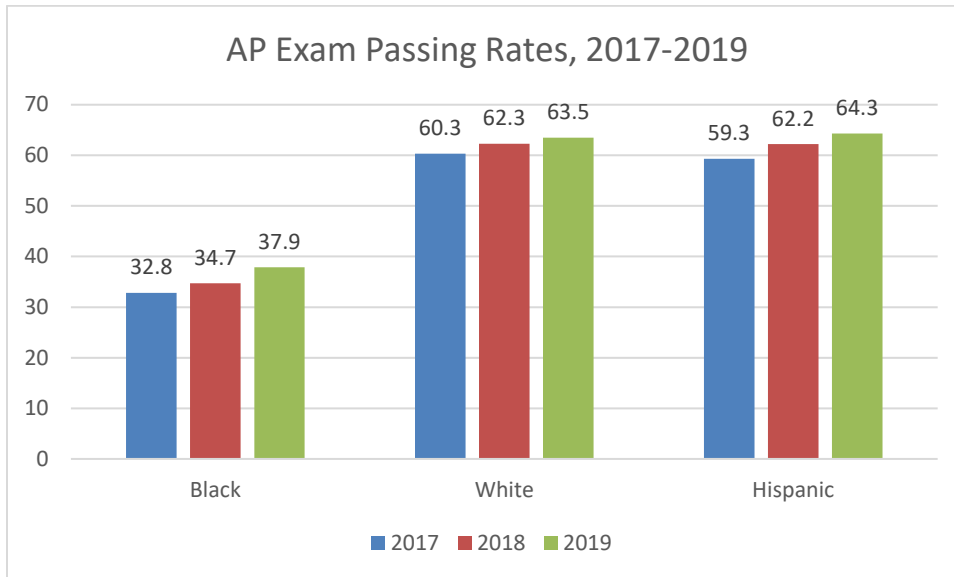


Figure 1. AP exam passing rates for three largest racial/ethnic groups, 2016 through 2018.

Table 3 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 3.2 percentage points over the past year, from 34.7 to 37.9 percent. Additionally, the mean score of Black students exceeded 2.0 for the third consecutive year and increased each year (2.09 in 2017, 2.17 in 2018, and 2.25 in 2019).

Table 3

AP Passing Rates and Mean Scores in BCPS by Race/Ethnicity, 2016-17 through 2018-19

Ethnicity	2016-17			2017-18			2018-19		
	<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	18,002	54.5	2.73	18,514	56.9	2.82	17,767	59.0	2.90
Asian	2,008	62.6	2.99	2,200	66.8	3.13	2,143	66.2	3.13
Black	2,187	32.8	2.09	2,251	34.7	2.17	2,179	37.9	2.25
Hispanic	6,571	59.3	2.89	6,931	62.2	3.01	6,974	64.3	3.06
Multi-ethnic Native American	588	55.8	2.73	563	52.8	2.69	587	58.6	2.82
White	60	49.2	2.54	87	54.0	2.80	77	61.6	2.83
	6,587	60.3	2.89	6,478	62.3	2.95	5,807	63.5	2.98

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 decreased by 2.0 percentage points.** The gap between Hispanic and White students continued to decrease resulting in Hispanic students outperforming White students on average (Table 4). Notably, the gap between Hispanic and White students changed from 0.1 to -0.8 percentage points from 2017-18 to 2018-19.

Table 4

Differences in Percent of AP Exams Scored 3 or Above in BCPS by Race/Ethnicity, 2016-17 through 2018-19

Group	Percent of Exams 3 or Above			Change in gap 2017-18 to 2018-19
	2016-17	2017-18	2018-19	
Black	32.8	34.7	37.9	
<i>Black and White Gap</i>	27.5	27.6	25.6	- 2.0
White	60.3	62.3	63.5	
<i>White and Hispanic Gap</i>	1.0	0.1	-0.8	-0.9
Hispanic	59.3	62.2	64.3	

Table 5 shows the gaps in the mean exam scores between Black, Hispanic, and White students. In 2018-19, **Hispanic students' mean AP exam score was slightly higher than White students', by .08 points.** Black students' mean score was .73 points lower than White students. **The Black-White score gap decreased by .05 points, while the Hispanic-White gap decreased by .02 points, in favor of the Hispanic students.**

Table 5

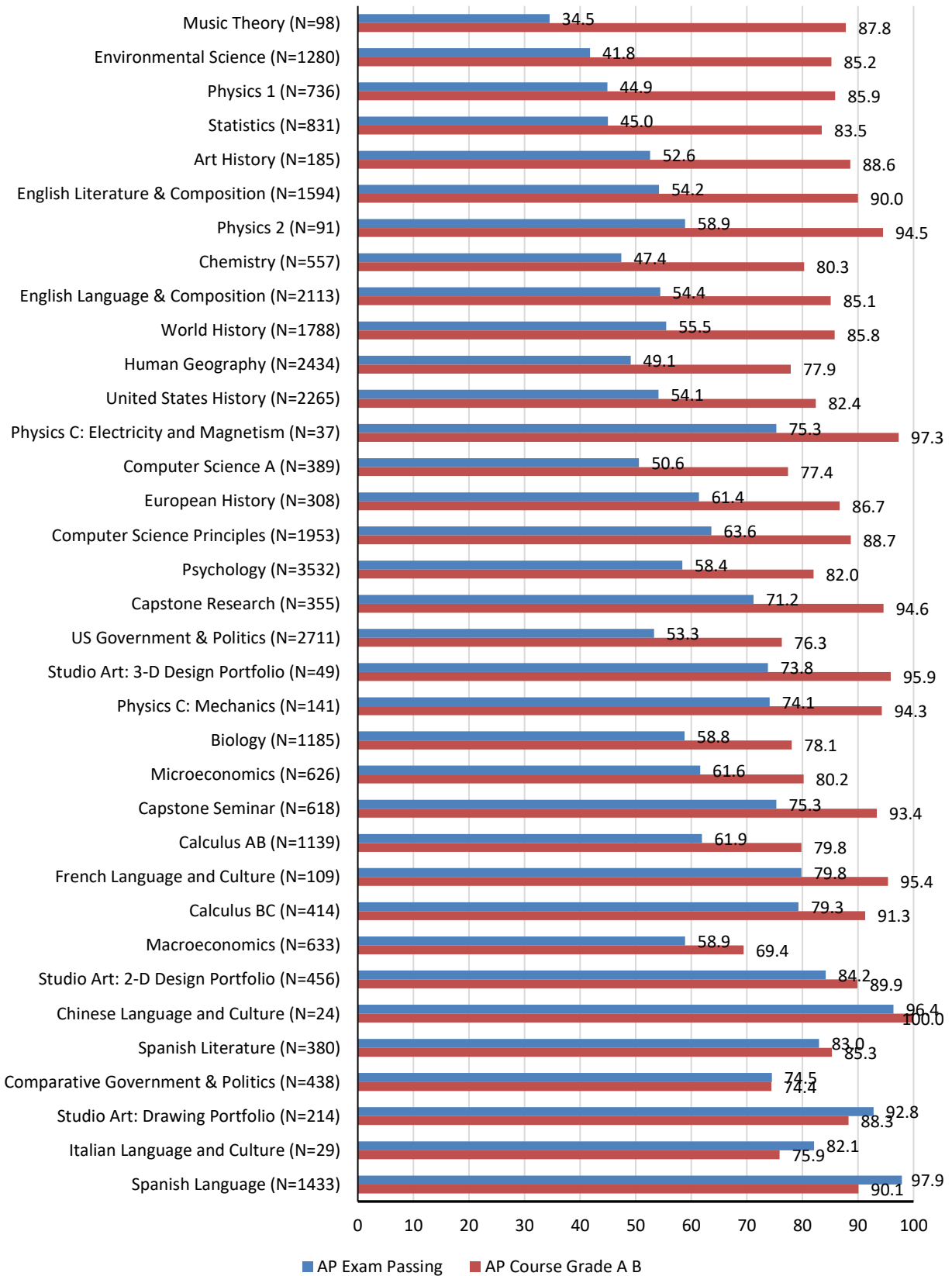
Differences in Mean AP Exam Scores in BCPS by Race/Ethnicity, 2016-17 through 2018-19

Group	Mean Exam Score			Change in gap 2017-18 to 2018-19
	2016-17	2017-18	2018-19	
Black	2.09	2.17	2.25	
<i>Black and White Gap</i>	.80	.78	.73	-.05
White	2.89	2.95	2.98	
<i>White and Hispanic Gap</i>	.00	-.06	-.08	-.02
Hispanic	2.89	3.01	3.06	

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 (Music Theory) discrepancy to the smallest (Spanish Language). Only subjects with more than 20 students who have exam scores and course grades are included.

Figure 2. AP Exam Passing Rates and Course Grades, 2018-19



There were 31 subject areas where course grades outpaced AP exam performance. This difference ranged from 2 to 53 percentage points. Course grades surpassed AP exam performance in twenty-one courses by at least 20 percentage points. Those courses were: Music Theory, Environmental Science, Physics 1, Statistics, Art History, English Literature & Composition, Physics 2, Chemistry, English Language & Composition, World History, Human Geography, United States History, Physics C: Electricity & Magnetism, Computer Science A, European History, Computer Science Principles, Psychology, Capstone Research, US Government & Politics, Studio Art: 3-D Design Portfolio, and Physics C: Mechanics. The large discrepancies between class grades and exam passing rates in these courses suggest expectations for these classes may not be aligned with the rigor of the exams. Conversely, four subject areas saw more students passing the AP exam than earning an A or B in coursework: Comparative Government & Politics, Studio Art: Drawing Portfolio, Italian Language & Culture, and Spanish Language.

The most popular AP subject areas based on exam participation were Psychology (3,532 students), US Government and Politics (2,711), Human Geography (2,434), US History (2,265), English Language and Composition (2,113), and Computer Science Principles (1,953). The subjects with the highest exam passing rates were Spanish Language (97.9%), Chinese Language & Culture (96.4%), Studio Art: Drawing Portfolio (92.8%), and Studio Art: 2-D Design Portfolio (84.2%). Conversely, the subjects with the lowest exam passing rates were Music Theory (34.5%), Environmental Science (41.8%), and Physics 1 (44.9%).

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 2018-19 the District had a total of 3,956 AP Scholars, with seven schools having more than 200 students recognized with this distinction. The schools with the most AP Scholars were: Cypress Bay High School (843 scholars), Marjory Stoneman Douglas High School (451 scholars) West Broward High School (314 scholars), Western High School (298 scholars), Nova High School (263 scholars), Cooper City High School (247 scholars), and Fort Lauderdale High School (231 scholars).

Summary

Across the three years examined, overall high school enrollment is unchanged while the number of students participating in AP testing decreased. 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 more than two percentage points this school year.

Twelfth grade has consistently maintained approximately a 30% participation rate, while the other three grades show a decline. The decrease in students participating in AP courses led to a decrease in the number of exams taken by 2,460 exams. Computer Science Principles AP exam participation increased from 1,449 exams in 2017-18 to 1,800 exams in 2018-19. This is an increase of 351 exams, by far the largest increase of any other subject exam.

The exam passing rate increased for the three main ethnic groups across the past three years, with 37.9 percent of Black students, 64.3 percent of Hispanic students, and 63.5 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 changed by 2.0 percentage points compared to the previous year, while the gap between Hispanic students and White students increased in favor of Hispanic students. Hispanic students' average score (3.06) surpassed that of White students (2.98).

Twenty-one 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 3,956 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 seven 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 2018-19 passing rates for each AP exam by school. Appendix C provides aggregate AP exam results by school over a three-year period.

Prepared by

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