

Report from Student Assessment & Research

September 2021

27.2%

**Participation Rate** 

among BCPS 11<sup>th</sup> and 12<sup>th</sup> graders, a decrease of 0.4% from the previous year

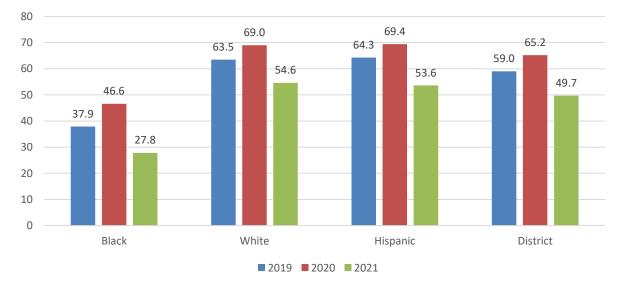
# **49.7%**

## **Exam Passing Rate**

with students earning scores of 3 or higher, a decrease of 15.3% over the previous year

### AP at a Glance

- In 2020-21, 15,397 BCPS high school students completed 27,965 AP tests, an average of 1.8 exams per participant.
- The AP exam passing rate for the District decreased dramatically over the past year from 65.0% to 49.7% for the 2020-21 school year.
- The passing rate for each of the three largest racial/ethnic groups, Black, White and Hispanic students, decreased for the first time in five years.
- The percent of Black students passing decreased by 18.8 percentage points, the percent of Hispanic students passing decreased by 14.4 percentage points, and the percent of White students passing decreased by 15.8 percentage points.
- Comparing last year to this year, the gap in passing rates between Black and White students increased by 4.4 percentage points.
- Psychology continues as the most popular AP course, with 3,009 students testing on that exam.
- In 2020-21, the District had a total of 3,167 high school AP Scholars, with 984 students recognized with distinction. AP Scholar Awards are granted to students who receive scores of 3 or higher on three or more AP exams.



AP Exam Passing Rates, 2019-2021

#### Additional Resources

A detailed report and data tables specific to AP in Broward County may be accessed at: <u>https://www.browardschools.com/sar</u>

For further information on the AP program, see: https://apcentral.collegeboard.org



#### DANIEL GOHL, CHIEF ACADEMIC OFFICER OFFICE OF ACADEMICS

Signatures on File

September 24, 2021

- 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, 2018-19 THROUGH 2020-21

The 2020-21 Advanced Placement (AP) results as of August 23, 2021 for Broward County Public Schools (BCPS) students are detailed in the attached Brief and appendices.

A reminder that caution must be taken when comparing this year's results with last year's results. The 2019-20 school year proved to be unique due to the global health pandemic related to the coronavirus. College board surveyed students and based on the results of the survey adjusted the method and type of Advanced Placement exams. College Board developed online free-response exams for each course. As stated on College Board's Website, "To be fair to all students, some of whom have lost more instructional time than others, the exam will only include topics and skills most AP teachers and students have already covered in class by early March. Like many college-level exams, 2019-20 AP Exams were open book/open note. Students were allowed to take exams on any device they had access to—computer, tablet, or smartphone. They were able to either type and upload their responses or write responses by hand and submit a photo via their cell phone."

College Board provided alternative method(s) to complete AP exams for the 2020-21 school year. College Board provided three separate administrations of AP exams. The first administration was limited to in school with paper and pencil along with traditional exams. The second and third administrations allowed in school traditional exams along with in home digital exams. Digital AP Exams were as long as paper and pencil exams and tested the same knowledge and skills. Digital exams started automatically at the same time worldwide, at 12 p.m. or 4 p.m. Eastern Daylight Time (EDT). The exam timing was controlled by the digital testing app, not by student, the AP coordinator, or a proctor. Only Windows and Mac computers, and school-managed Chromebooks were allowed to be used for testing. Digital AP Exams were not allowed to be taken on personal Chromebooks, smartphones, or tablets. In addition, for security reasons, digital exams did not allow students to move back to previous questions or review questions already answered. If a question was skipped ahead, the student was not able to go back.



AP Program Enrollment and Results, 2018-19 through 2020-21 September 24, 2021 Page 2

The findings related to the 2020-21 AP results include:

- AP exam participation in BCPS increased by 196 for grades 9, 10, 11, and 12 from 2019-20 to 2020-21. For the 2020-21 year, 15,397 high school students completed 27,965 AP exams, averaging 1.8 exams per participant.
- 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 2020-21 the District had a total of 3,167 high school AP Scholars, with 984 students recognized with distinction. AP Scholar with Distinction is granted to students who receive an average score of at least 3.5 on all AP Exams taken.
- The passing rate decreased by 15.3 percentage points in the 2020-21 school year compared to 2019-20, from 65.0% in 2019-20 to the current rate of 49.7%.
- The 2020-21 results show a 4.4 percentage point increase in the gap between Black and White students. Passing rates have decreased across the board for the three largest racial/ethnic groups (Hispanic, Black, and White).

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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**Report from the Office of the Superintendent** 

#### ADVANCED PLACEMENT PROGRAM ENROLLMENT AND RESULTS, 2018-19 THROUGH 2020-21

This Brief presents enrollment rates and exam results for Broward County Public Schools' (BCPS) Advanced Placement (AP) program as of August 23, 2021. 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.<sup>1</sup>

#### Student participation rates, overall and by race/ethnicity

Table 1High School Enrollment<sup>2</sup> and AP Exam Participation in BCPS, 2018-19 through 2020-21

	High School	AP		AP Course Participation
Grade	Enrollment	Enrollment	AP Exams	Rate
		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
		2019-20		
Total	77,994	16,979	27,774	21.8
9th	20,052	2,287	2,271	11.4
10th	19,705	4,156	5,603	21.1
11th	18,799	5,414	9,790	28.8
12th	19,438	5,122	10,092	26.4
		2020-21		
Total	78,910	16,813	27,970	21.3
9th	20,301	2,227	2,242	11.0
10th	20,000	4,093	5,840	20.5
11th	19,229	5,279	9,328	27.5
12th	19,380	5,214	10,555	26.9



Number 206 September 2021

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

<sup>&</sup>lt;sup>2</sup> Enrollment calculated using BCPS benchmark day enrollment data which is recorded on the 20<sup>th</sup> day of school.

As shown in Table 1, BCPS' total high school enrollment increased by 916 (1.2%) students since the 2019-20 school year, while AP participation decreased by 166 (less than 1%) students. The decrease in students participating in AP courses did not lead to a corresponding decrease in the number of exams taken. AP exams increased in the 2020-21 school year by 196 exams compared to the 2019-20 school year.

AP participants completed, on average, 1.8 AP exams in 2020-21. The average number of AP exams taken is unchanged for the fourth consecutive year (see Table 2). Asian participants completed more exams on average (2.3) than students of any other race/ethnicity. Black students increased slightly from 1.5 to 1.6. Hispanic students participated at the District average of 1.8 exams per student, while White students participated just above the District 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

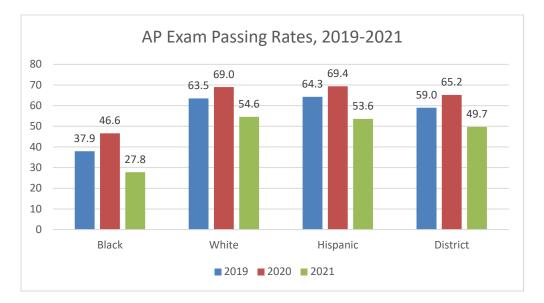
Number of AP Students Tested, Number of AP Examinations, and Average Number of Exams by Race/Ethnicity in Broward County, 2018-19 through 2020-21

	2018-19			2019-20				2020-21		
Race/	N	n	Avg. n	N	n	Avg. n	Ν	Ν	Avg. n	
Ethnicity	Tested	Exams	Exams	Tested	Exams	Exams	Tested	Exams	Exams	
Broward	16,584	30,104	1.8	15,563	27,774	1.8	15,397	27,970	1.8	
Asian	1,380	3,237	2.3	1,344	3,064	2.3	1,357	3,139	2.3	
Black	3,711	5,748	1.5	3,338	5,108	1.5	3,330	5,225	1.6	
Hispanic	6,129	10,848	1.8	5,813	10,084	1.7	5,876	10,288	1.8	
Multi-ethnic	533	1,001	1.9	537	970	1.9	465	931	2.0	
Native										
American	64	125	2.0	55	107	1.9	52	105	2.0	
White	4,767	9,145	1.9	4,476	8,441	1.9	4,317	8,282	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 decreased their passing rate for 2020-21. The largest decrease of 18.8 percentage points occurred in Black students' passing rate down to 27.8% in 2020-21, Hispanic students' passing rate decreased by 15.8 percentage points, and White students' passing rate decreased by 14.4 percentage points.





*Figure 1. AP exam passing rates for three largest racial/ethnic groups, 2018-19 through 2020-21.* 

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 decreased dramatically by 18.8 percentage points over the past year, from 46.6 to 27.8 percent. Additionally, most other racial/ethnic groups had a decrease in passing percentage by at least 12 percentage points except Native American which had a decrease of 7.4 percentage points.

AP Passing Rates	and Mea	n Scores	in BCPS	by Race/Et	thnicity,	2018-19	through	2020-21	
	2	2018-19		2	019-20			2020-21	
_	n	%		n	%		n	%	
	Exams	Exams	Mean	Exams	Exams	Mean	Exams	Exams	Mean
Ethnicity	3+	3+	Score	3+	3+	Score	3+	3+	Score
Broward	17,767	59.0	2.90	18,060	65.0	3.04	13910	49.7	2.61
Asian	2,143	66.2	3.13	2,219	72.4	3.28	1891	60.2	2.92
Black	2,179	37.9	2.25	2,373	46.6	2.47	1450	27.8	1.97
Hispanic	6,974	64.3	3.06	6,967	69.1	3.19	5516	53.6	2.74
Multi-ethnic	587	58.6	2.82	624	64.3	2.97	473	50.8	2.62
Native									
American	77	61.6	2.83	65	60.7	2.91	56	53.3	2.66
White	5,807	63.5	2.98	5,812	68.9	3.14	4524	54.6	2.74

Table 3AP Passing Rates and Mean Scores in BCPS by Race/Ethnicity, 2018-19 through 2020-21

Performance gaps between Black and Hispanic students and their White peers have been a longstanding concern. Comparing last year to this year, the gap in passing rates between Black and



White students increased by 4.4 percentage points. The gap between Hispanic and White students increased for the first time in three years resulting in White students outperforming Hispanic students on average (Table 4). Notably, the gap between Hispanic and White students changed from -0.2 to 1.0 percentage points from 2019-20 to 2020-21.

Differences in Percent of AP Exams Scored 3 or Above in BCPS by Race/Ethnicity, 2018-19 through 2020-21

	Percent	of Exams 3 d	Change in gap	
Group	2018-19	2019-20	2020-21	2019-20 to 2020-21
Black	37.9	46.5	27.8	
Black and White Gap	25.6	22.4	26.8	4.4
White	63.5	68.9	54.6	
White and Hispanic Gap	-0.8	-0.2	1.0	1.2
Hispanic	64.3	69.1	53.6	

Table 5 shows the gaps in the mean exam scores between Black, Hispanic, and White students. In 2020-21, Hispanic students' mean AP exam score was the same as White students' mean AP exam score. Black students' mean score was .77 points lower than White students' mean AP exam score. The Black-White score gap increased by .10 points, while the Hispanic-White gap increased by .05 points.

#### Table 5

Table 4

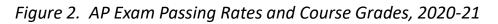
Differences in Mean AP Exam Scores in BCPS by Race/Ethnicity, 2018-19 through 2020-21

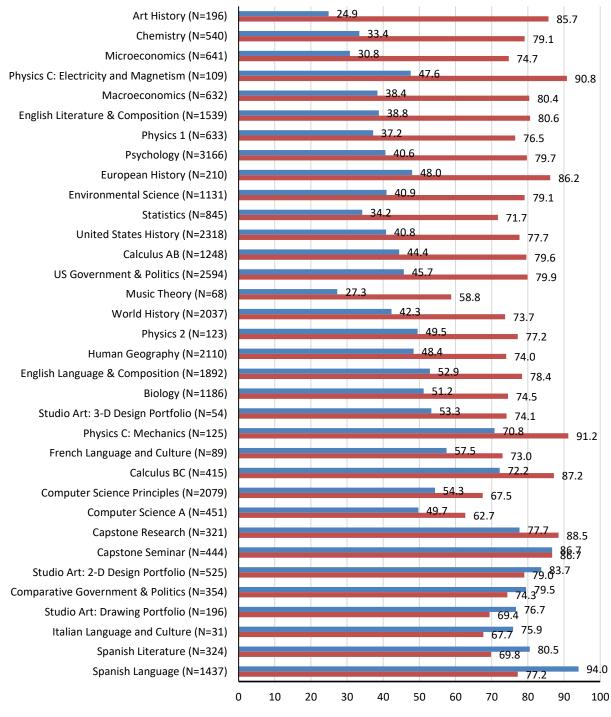
	M	lean Exam Sco	Change in gap		
Group	2018-19	2019-20	2020-21	2018-19 to 2019-20	
Black	2.25	2.47	1.97		
Black and White Gap	.73	.67	.77	.10	
White	2.98	3.14	2.74		
White and Hispanic Gap	08	05	0	.05	
Hispanic	3.06	3.19	2.74		

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







AP Exam Passing AP Course Grade A B

There were 27 subject areas where course grades outpaced AP exam performance. This difference ranged from 10 to 61 percentage points. Course grades surpassed AP exam performance in twenty-two courses by at least 20 percentage points. Those courses were: Art History, Chemistry, Microeconomics, Macroeconomics, English Literature & Composition, Physics

1, Psychology, European History, Environmental Science, Statistics, United States History, Calculus AB, US Government & Politics, Music Theory, World History, Physics 2, Physics C: Electricity & Magnetism, Human Geography, English Language & Composition, Biology, 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, six subject areas saw more students passing the AP exam than earning an A or B in coursework: Studio Art: 2-D Design Portfolio, Comparative Government & Politics, Studio Art: Drawing Portfolio, Italian Language & Culture, Spanish Literature, and Spanish Language.

The most popular AP subject areas based on exam participation were Psychology (3,009 students), US Government and Politics (2,428), US History (2,209), Human Geography (1,992), World History (1,893), English Language & Composition (1,804) and Computer Science Principles (1,676). The subjects with the highest exam passing rates were Spanish Language (94.0%), Capstone Seminar (86.4%), Studio Art: 2-D Drawing Portfolio (83.7%), and Spanish Literature (80.5%). The subjects with the lowest exam passing rates were Art History (24.9%), Music Theory (27.3%), Microeconomics (30.8%), Chemistry (33.4%), Statistics (34.2%), and Physics 1 (37.2%).

#### **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 2020-21 the District had a total of 3,167 AP Scholars, with 984 students recognized with distinction. The schools with the most AP Scholars were: Cypress Bay High School (278 Scholars, 118 Scholars with Honor, and 275 Scholars with Distinction), Marjory Stoneman Douglas High School (201 Scholars, 69 Scholars with Honor, and 124 Scholars with Distinction), West Broward High School (111 Scholars, 40 Scholars with Honor, and 49 Scholars with Distinction).



#### 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 decreased across all race/ethnicity groups this school year.

District participation rate has been consistent, while the grade level participation has fluctuated. Although there was a decrease in students participating in AP courses, this did not lead to a corresponding decrease in the number of exams taken.

The exam passing rate decreased for the three main ethnic groups. The comparison to 2019-20 results is not directly relatable to 2020-21 results. The COVID-19 pandemic caused College Board to change the method and type of AP Exams for all subjects. The 2019-20 school year found AP Exams to be all essay with restricted topics and skills. Students were able to submit responses through a variety of devices. While passing scores decreased for all three groups, the gap between Black students and White students increased to 4.4 percentage points compared to the previous year. The gap between Hispanic students and White students increased 1.2 percentage points in to favor of White students. This is the first time in two years the White students outperformed their Hispanic counterparts.

Twenty-two 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 3,167 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.

#### 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 2020-21 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., Research Specialist, Student Assessment and Research

#### The School Board of Broward County, Florida

Dr. Rosalind Osgood, Chair Laurie Rich Levinson, Vice Chair Lori Alhadeff Patricia Good Debra Hixon Donna P. Korn, Sarah Leonardi Ann Murray Nora Rupert Dr. Vickie L. Cartwright, Interim Superintendent of Schools

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