

**BOARD OF EDUCATION OF HOWARD COUNTY  
MEETING AGENDA ITEM**

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**TITLE:** SAT Results for the Class of 2009 **DATE:** September 24, 2009  
**PRESENTER(S):** Jose Stevenson, Director of Student Assessment and Program Evaluation

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**OVERVIEW:**

Students in the graduating Class of 2009 achieved noteworthy performance on the SAT. The mean SAT composite score of 1641 is about 138 points higher than the composite scores of the state and the nation. Over time, HCPSS has maintained a sizable lead overall, by gender, and by race/ethnicity over the national and statewide scores on all sections of the test.

Howard County Public School System student test-takers' results may vary from those published by College Board because those results are based on student self-reported data, which may include errors in demographics and school information and omissions. For this reason, the 2009 and trend results for HCPSS students are based on an internal analysis which has corrected errors and confirmed records of student test-takers. Results for the nation and Maryland are extracted from the results published by the College Board.


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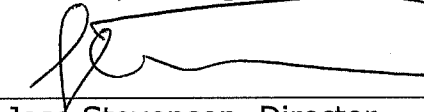
**RECOMMENDATION/FUTURE DIRECTION:**

Average scores for African American students rose on all SAT sections, while Hispanic students improved in critical reading and writing. While the graduating Class of 2009 performed remarkably beyond the state and national averages, differences in performance among racial/ethnic groups still exist. Staff members will continue to examine the data and to design and implement improvement initiatives to improve scores among all student groups.


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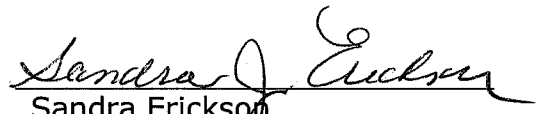
**Submitted by:**

  
Theresa R. Alban  
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**Approval/  
Concurrence:**

  
Sydney L. Cousin  
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## **Background**

Published by the College Board and scored by the Educational Testing Service, the SAT is a standardized test designed to measure high-school level knowledge in critical reading, writing, and mathematics. Each of these sections is scored on a scale that ranges from 200 (lowest) to 800 (highest). The maximum total score is 2400. Colleges and universities use SAT scores, in addition to other student information, to evaluate students' readiness for college work.

In 2005, the College Board re-centered the score scales for all sections of the SAT and introduced some changes in order to re-align its content with contemporary high school test-takers, curriculum, and practices. The verbal section, for example, was renamed "Critical Reading," shorter reading passages were added to the existing long reading passages, and analogies were eliminated. Quantitative comparisons were eliminated in the mathematics section. Finally, a new writing section was added.

Nationally, a record 1.53 million students took the SAT in 2009, an increase of about one percent from last year. In Maryland, 46,562 students took the SAT in 2009, a one percent decrease from 2008. National and state scores on all three sections have declined or remained flat in recent years, a trend attributed to the record number of students now taking the test.<sup>1</sup>

## **About this Report**

This report presents scores on the SAT for the Howard County Public School System (HCPSS) students from the Class of 2009. The trend performance begins with the Class of 2006, the first year in which writing scores became available.

The HCPSS participation and performance results presented in this report may vary from those published by the College Board for at least two reasons. First, the College Board results are based on student self-reported demographic data, which may contain errors that are difficult for the College Board to recognize or correct. The 2009 results by racial/ethnic group help to illustrate this point.

- Some students report a race other than the traditional African American, Asian, Hispanic, American Indian, or White categories. For the Class of 2009, 95 students selected "Other" as their racial/ethnic designation. The average score of students in this group was 558 on the critical reading, 553 on the mathematics, and 553 on the writing sections of the SAT.
- Some students do not respond to the question regarding their race. For the Class of 2009, 82 students did not respond. The average score of students in this group was 564 on the verbal, 565 on the mathematics, and 553 on the writing sections of the SAT.

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<sup>1</sup> College Board, SAT Trends. Background on the 1,530,128 SAT Takers in the Class of 2009.

Secondly, the College Board data often contain duplicate records, errors in school of attendance, and omissions. Comparisons of College Board scores received throughout the year and those from the end-of-year summary report showed that a number of students with legitimate SAT scores who finished Grade 12 in HCPSS were not on the summary data. Likewise, there were some students on the College Board summary data who were not members of the HCPSS graduating Class of 2009.

For these reasons, the 2009 and trend results contained in this report are based on an internal analysis which has corrected errors and omissions and confirmed records of HCPSS test-takers. Results for the nation and Maryland are extracted from the results published by the College Board.

### **HCPSS Participation in SAT**

A total of 2,820 students took the SAT in HCPSS, representing 72 percent of the district’s 2009 graduates. While overall participation declined slightly from last year, the participation of Asian, African American, and Hispanic students slightly increased in 2009 relative to 2008. This is the first decline in overall participation rates in the period extending from 2006 to 2009. Table 1 presents these data.

Table 1. Demographic Summary of HCPSS SAT Takers, 2006–2009

	2006	2007	2008	2009
Overall	2,739	2,815	2,834	2,820
Male	1,312	1,368	1,350	1,330
Female	1,427	1,447	1,484	1,490
Asian	428	468	454	459
African American	419	447	470	471
White	1,809	1,819	1,836	1,784
Hispanic	78	76	63	94

The number of American Indian students who participated in SAT testing is omitted because fewer than 10 students are included in this group across the trend years.

## Overall Results for the Graduating Class of 2009

Average SAT scores for the most recent graduating class improved two points in critical reading (542 vs. 540) and one point in mathematics (558 vs. 557). Average scores declined three points in writing (541 vs. 544). With these average scores, students achieved a composite score of 1641 of a possible 2400.

Despite the small dip in writing, the 2009 scores not only top national and statewide results by wide margins, but also depart from the national and state trends toward declining or stable scores. This performance is consistent with results from previous years.

Figure 1 and Table 2 present these data.

Figure 1. 2009 Mean SAT Scores – HCPSS, Maryland, and the Nation

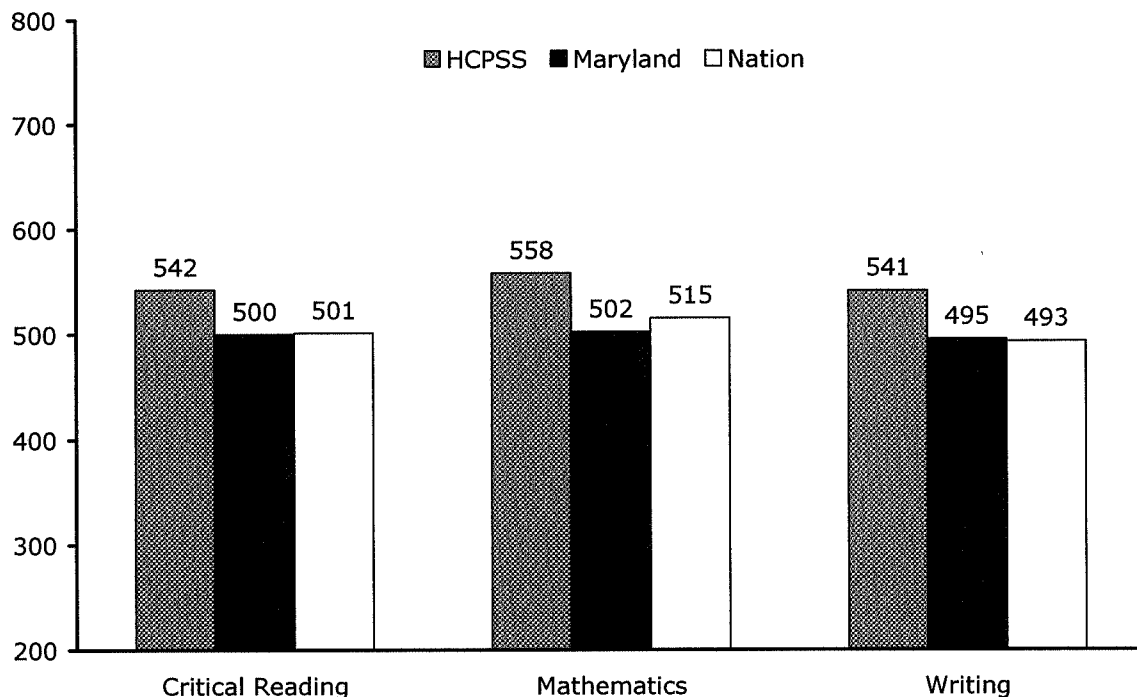


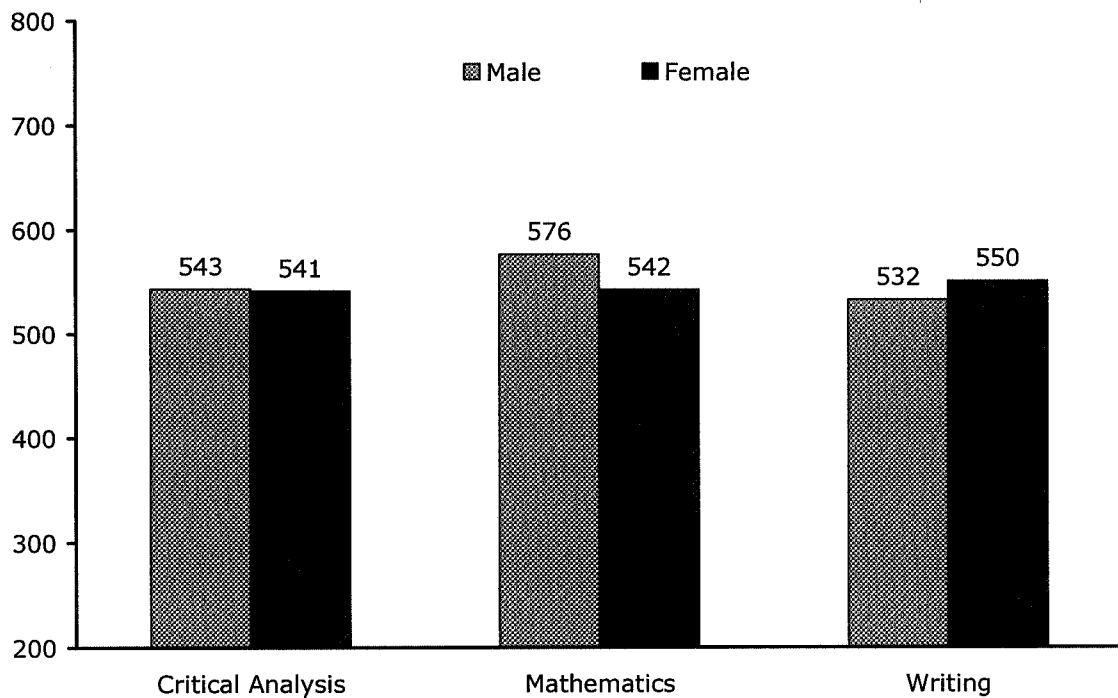
Table 2. Mean SAT Scores, 2006–2009

		2006	2007	2008	2009
Critical Reading	HCPSS	537	537	540	542
	Maryland	503	500	499	500
	Nation	503	502	502	501
Mathematics	HCPSS	557	556	557	558
	Maryland	509	502	502	502
	Nation	518	515	515	515
Writing	HCPSS	536	537	544	541
	Maryland	499	496	497	495
	Nation	497	494	494	493

*Results by Gender*

Male and female students improved their performance on all three sections of the SAT over 2008. Male students, on average, scored five points higher than females on the critical reading section (547 vs. 542) and 34 points higher on the math test (579 vs. 545), but female students outscored their counterparts on the writing test (554 vs. 537). Figure 2 presents these data.

Figure 2. Mean SAT Scores by Gender – HCPSS Class of 2009



Between 2006 and 2009, HCPSS average SAT scores by gender show male students outperforming female students in critical reading and mathematics, with the largest difference on the mathematics section. Female students, on the other hand, outscored male students on the writing section. These differences in performance have remained relatively stable over time and paralleled state and national results.

HCPSS results for male and female students far outpaced the averages for the state and the nation on all sections of the SAT in the 2006 to 2009 period. Table 3 presents these data.

Table 3. Mean SAT Scores by Gender, 2006–2009

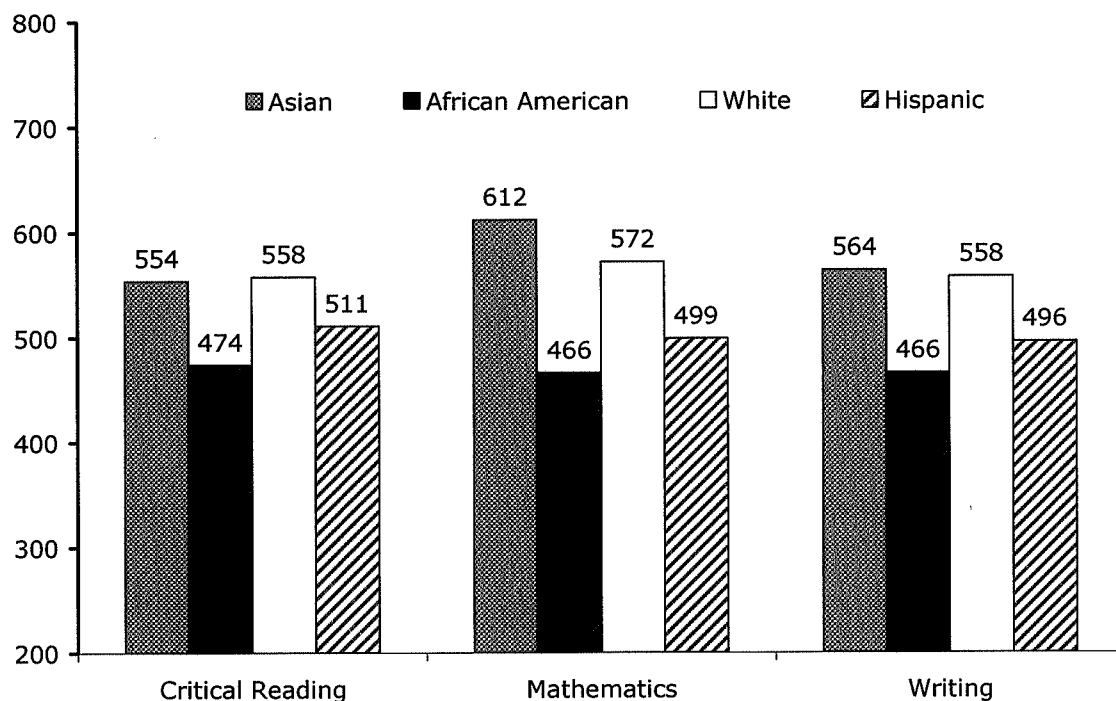
			<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Critical Reading	HCPSS	Male	539	532	544	547
		Maryland	505	503	501	501
		Nation	505	504	504	503
	HCPSS	Female	539	542	537	542
		Maryland	502	498	497	498
		Nation	502	502	500	498
Mathematics	HCPSS	Male	576	567	578	579
		Maryland	527	522	521	520
		Nation	536	533	533	534
	HCPSS	Female	543	547	538	545
		Maryland	493	488	487	487
		Nation	502	499	500	499
Writing	HCPSS	Male	529	524	535	537
		Maryland	493	490	489	487
		Nation	491	489	488	486
	HCPSS	Female	545	551	552	554
		Maryland	504	502	504	502
		Nation	502	500	501	499

### Results by Race/Ethnicity

While differences in performance among racial/ethnic groups exist (Figure 3), the 2009 results show notable progress for African American and Hispanic students from 2008.

- African American students averaged 474 on the critical reading section, up 15 points, 466 on the mathematics section, up 15 points, and 466 on the writing section, up three points.
- Hispanic students gained 13 points to 511 on the critical reading section, and one point to 496 on the writing section.

Figure 3. Mean SAT Scores by Race/Ethnicity, HCPSS Class of 2009



Trend data from 2006 to 2009 shows that, on average, the scores of HCPSS Asian, African American, White, and Hispanic students consistently surpassed the nation and the state scores. Table 4 presents these data.

Table 4. 2006–2009 Mean SAT Scores by Race/Ethnicity

			2006	2007	2008	2009	
Critical Reading	Asian	HCPSS	543	543	559	554	
		Maryland	528	528	531	538	
		Nation	510	514	513	516	
	African American	HCPSS	469	462	459	474	
		Maryland	430	428	423	427	
		Nation	434	433	430	429	
	White	HCPSS	553	555	558	558	
		Maryland	539	540	540	540	
		Nation	527	527	528	528	
	Hispanic	HCPSS	505	479	498	511	
		Maryland	487	478	476	480	
		Nation	456	458	455	454	
	Mathematics	Asian	HCPSS	613	613	615	612
			Maryland	585	582	584	591
			Nation	578	578	581	587
African American		HCPSS	465	459	451	466	
		Maryland	418	415	411	414	
		Nation	429	429	426	426	
White		HCPSS	567	568	571	572	
		Maryland	548	545	547	546	
		Nation	536	534	537	536	
Hispanic		HCPSS	504	494	504	499	
		Maryland	488	481	479	477	
		Nation	463	463	461	461	
Writing		Asian	HCPSS	555	555	570	564
			Maryland	533	530	538	545
			Nation	512	513	516	520
	African American	HCPSS	466	460	463	466	
		Maryland	427	425	423	422	
		Nation	428	425	424	421	
	White	HCPSS	549	554	561	558	
		Maryland	535	535	536	534	
		Nation	519	518	518	517	
	Hispanic	HCPSS	503	477	495	496	
		Maryland	481	474	475	475	
		Nation	451	450	447	447	



## Results by School

The vast majority of HCPSS high schools exceeded the national and state averages on all sections of the test. All of the high schools outdistanced the national and state composite scores. Table 5 presents these data.

Table 5. 2009 Mean SAT Participation and Mean Scores by School

	Number Tested	Critical Reading	Mathematics	Writing	Composite
HCPSS	2,820	542	558	541	1641
Maryland	46,562	500	502	495	1497
Nation	1,530,128	501	515	493	1509
Atholton	280	562	588	567	1717
Centennial	311	571	607	576	1754
Glenelg	218	545	566	550	1660
Hammond	161	529	525	515	1569
Howard	263	525	529	525	1580
Long Reach	204	497	509	497	1504
Marriotts Ridge	160	557	572	551	1680
Mount Hebron	262	544	567	543	1654
Oakland Mills	179	517	520	507	1543
Reservoir	246	515	529	509	1553
River Hill	284	573	592	581	1746
Wilde Lake	252	539	547	535	1621

## Summary of Results

The graduating Class of 2009 HCPSS students, as have their preceding classes, achieved noteworthy performance on the SAT. The mean SAT composite score of 1641 is about 138 points higher than the state and the nation composite scores. Over time, HCPSS has maintained a sizable lead overall, by gender, and by race/ethnicity over the national and statewide scores on all sections of the test.

While these results are remarkable, curriculum and instructional efforts will continue to focus on an area that remains an opportunity for improvement. Average scores for African American students rose on all SAT sections, while Hispanic students improved in critical reading and writing. But differences in performance among racial/ethnic groups still exist. On average, the SAT critical reading, mathematics, and writing scores of Asian American and White students were about 80 points higher than those of African American and Hispanic students. The greatest difference was in mathematics (109 points); the smallest difference was in critical reading (63 points).