

Participation and Performance of the Montgomery County Public Schools Class of June 2006 on the New SAT

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Background

The Class of 2006 is the first graduating class to take the new SAT (College Board, 2004). As with the old SAT, subtest scores are reported in increments of 10 on scales that range from 200 to 800. However, the new SAT differs from the old SAT in several ways. The old verbal subtest was replaced with a new critical reading subtest that added shorter reading passages and eliminated the analogies items. The math subtest content was expanded to include Algebra 2 and eliminated quantitative comparisons. In addition, the new SAT has a writing subtest that includes an essay in response to a prompt and multiple choice items that measure how well students use standard written English (College Board, 2004).

Since the first administration of the new SAT in March 2005, mean scores on the new SAT have been lower than for the old SAT (College Board, 2006a). One explanation may be that students are retesting less frequently (College Board, 2006a; Von Secker, 2006). A large decrease in repeat test taking could account for a decline of several points in average SAT scores for the Class of 2006 (College Board, 2006a).

Differences in the content, length, and score distributions on the old and new versions of the SAT have led college admissions officers and the public to raise questions about the comparability of the old and new versions of the SAT (Marklein, 2006a, 2006b; Matthews, 2006). Given the issues related to the new SAT, the Montgomery County Public Schools (MCPS) set a new baseline for monitoring improvements in SAT participation and performance.

Methodology

SAT participation and performance are reported for the 9,483 MCPS-verified students who graduated in June 2006. The SAT critical reading, math, and writing subtest scores were obtained from students' most recent SAT administrations. Mean combined

SAT scores may differ by one point from the sum of the subtest scores because of rounding.

School system and high school SAT results reported in Tables A1 to A3 describe baseline participation and performance of males, females, students of different races/ethnicities, and students who received Free and Reduced-price Meals System (FARMS), special education, or English Language Learner (ELL) services.

SAT results reported by the College Board for non-verified MCPS graduates, Maryland, and the nation are provided in Table A4. The College Board results for MCPS differ slightly from official MCPS records because College Board enrollment and graduation information are self-reported when students take the SAT. In addition, the College Board results for the Class of 2006 include students who withdrew from MCPS after they took the SAT and test takers who did not graduate. SAT participation and performance for Maryland and the nation are drawn from College Board publications (College Board, 2006b, 2006c).

Results

MCPS, Maryland, and National SAT Performance

The SAT combined score of 1634 for the MCPS Class of 2006 is statistically significantly higher than the mean SAT combined scores for Maryland (1511) and the nation (1518). On average, MCPS outperformed all test takers in Maryland and the nation—including private school students—by 123 and 116 points, respectively. Compared with last year, the differentials in combined critical reading and math performance for MCPS compared with Maryland and the nation were 9 points and 2 points higher, respectively, in 2006.

The MCPS Class of 2006 outperformed Maryland and the nation on each SAT subtest as well as overall. The MCPS critical reading, math, and writing scores

were about 40 points higher than those for Maryland or the nation (Figure 1).

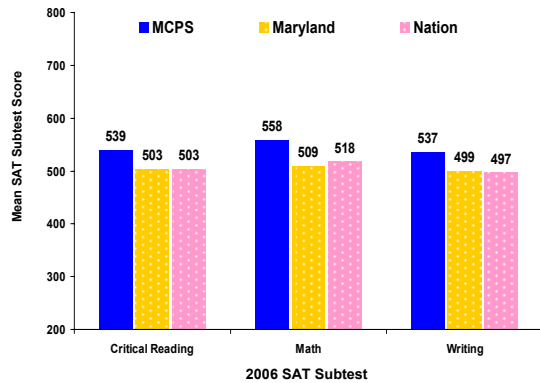


Figure 1. Mean SAT critical reading, math, and writing scores for the Class of 2006.

MCPS SAT Participation and Performance

High Schools

The MCPS Class of 2006 SAT participation rate at every high school was 60% or higher. Of the 23 MCPS high schools with graduating classes, 18 (78%) attained mean SAT combined scores higher than 1500; 6 (26%) attained mean SAT combined scores higher than 1650; and 2 (9%) attained SAT mean combined scores higher than 1800 (Table A2).

Gender

About three fourths (75.8%) of the MCPS Class of 2006 took the new SAT (Table 1). This rate was not significantly different from the historic high of 76.5% set by the MCPS Class of 2005. Overall, SAT participation of females (78.2%) was 4.8 percentage points higher than for males (73.4%).

Test Group	N Graduates	N Took SAT	% Took SAT
All Students	9483	7191	75.8
Males	4632	3398	73.4
Females	4851	3793	78.2

The mean SAT combined score for males (1648) was 27 points higher than the mean combined SAT score for females (1621). On average, males performed better than females on the critical reading (5 points) and math (33 points) subtests (Figure 2). However,

females performed an average of 11 points better than males on the writing subtest (Figure 2).

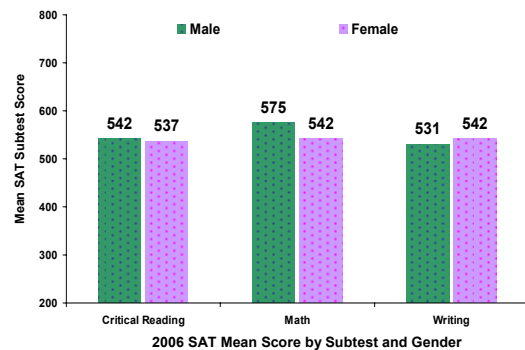


Figure 2. SAT performance for the MCPS Class of 2006, by gender.

Race/Ethnicity

Asian American (87.8%) and White (82.1%) students took the SAT at rates more than 16 percentage points higher than the rate for African American (65.9%) students and more than 29 points higher than the rate for Hispanic (53.0%) students (Table 2).

Test Group	N Graduates	N Took SAT	% Took SAT
African Am.	1882	1240	65.9
Asian Am.	1556	1366	87.8
Hispanic	1303	691	53.0
White	4728	3884	82.1

Note: Data are not reported separately for Am. Indian students.

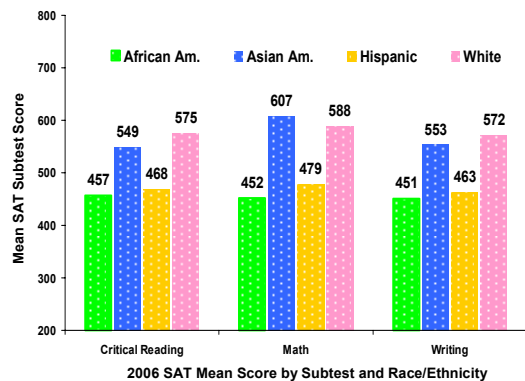


Figure 3. SAT performance for the MCPS Class of 2006, by race/ethnicity.

The mean SAT combined scores for African American (1360), Asian American (1710), Hispanic

(1410), and White (1735) students differed by more than 300 points. On average, the SAT critical reading, math, and writing scores of Asian American and White students (Figure 3) were more than 100 points higher than those of African American and Hispanic students.

Service Group

About one half of students in the MCPS Class of 2006 who received FARMS services (54.0%) took the new SAT. Less than one half of students who received special education (45.9%) or ELL (35.7%) services took the new SAT (Table 3).

Table 3
Participation of the MCPS Class of 2006 on the New SAT by Service Group

Test Group	N Graduates	N Took SAT	% Took SAT
All MCPS	9483	7191	75.8
FARMS	1071	578	54.0
Special Ed.	809	371	45.9
ELL	277	99	35.7

The mean SAT combined scores for students who received FARMS (1316), special education (1383), and ELL (1148) services were about 250 to 490 points lower than the mean combined scores of all students in the MCPS Class of 2006 (Figure 4). On average, the SAT critical reading, math, and writing scores of students who received FARMS, special education, and ELL services were more than 75 points lower than the MCPS average.

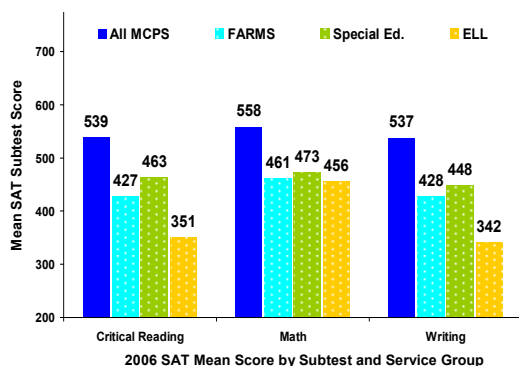


Figure 4. SAT participation and performance for the MCPS Class of 2006, by race/ethnicity.

Discussion

The mean SAT scores of the MCPS Class of 2006 were statistically significantly higher than the mean scores for Maryland or the nation. On average, MCPS students who took the new SAT scored about 40 points higher on each subtest and about 120 points higher overall than public and private school test takers in Maryland or the nation.

Demographic differences in SAT participation and performance were similar to those observed on the old SAT (Von Secker, 2005). On average, females were more likely to take the SAT, but male students had higher average SAT combined scores. However, among African American students, females had a higher participation rate and a higher average SAT combined score than males.

Asian American and White students took the SAT at rates about 26 percentage points higher than African American and Hispanic students. On average, the combined SAT critical reading, math, and writing scores of Asian American and White students were about 300 points higher than those of African American or Hispanic students.

Less than half of the students in the MCPS class of 2006 who received FARMS, special education, or ELL services took the SAT. Among those students, scores were significantly lower than the district averages.

The SAT results for the Class of 2006 will be used by MCPS to set targets for the SAT participation and performance of future graduating classes. MCPS Department of Shared Accountability and the College Board are working together to conduct investigations that will reveal some of the sources of demographic differences in SAT participation and performance.

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Table A1
SAT Participation and Mean Most Recent SAT Scores of the MCPS Class of 2006^a by Demographic Group

Demographic Group	N Graduates	SAT Participation		Combined Score	Mean Most Recent SAT Scores		
		N Took SAT	% Took SAT		Critical Reading	Math	Writing
All MCPS	9483	7191	75.8	1634	539	558	537
Male	4632	3398	73.4	1648	542	575	531
Female	4851	3793	78.2	1621	537	542	542
African Am.	1882	1240	65.9	1360	457	452	451
Male	849	515	60.7	1347	451	460	437
Female	1033	725	70.2	1368	461	447	461
Asian Am.	1556	1366	87.8	1710	549	607	553
Male	805	694	86.2	1723	554	620	550
Female	751	672	89.5	1695	545	594	556
Hispanic	1303	691	53.0	1410	468	479	463
Male	615	297	48.3	1433	473	499	461
Female	688	394	57.3	1393	464	464	464
White	4728	3884	82.1	1735	575	588	572
Male	2353	1885	80.1	1737	573	603	561
Female	2375	1999	84.2	1733	577	574	582
FARMS	1071	578	54.0	1316	427	461	428
Special Ed.	809	371	45.9	1383	463	473	448
ELL	277	99	35.7	1148	351	456	342

^a Class of 2006 includes June graduates only. SAT data are not reported for students who graduated in August 2005 or January 2006.

Note: The combined score may differ by one point from the sum of the subtest scores because of rounding.

Table A2
SAT Participation and Mean Most Recent SAT Scores of the MCPS Class of 2006^a by High School

High School	N Graduates	SAT Participation		Mean Most Recent SAT Scores			
		N Took SAT	% Took SAT	Combined Score	Critical Reading	Math	Writing
MCPS	9483	7191	75.8	1634	539	558	537
B-CC	385	312	81.0	1784	595	598	592
Blair	667	522	78.3	1628	543	548	537
Blake	435	346	79.5	1556	523	520	513
Churchill	524	478	91.2	1827	595	628	603
Damascus	453	294	64.9	1606	528	557	521
Einstein	330	234	70.9	1459	487	489	484
Gaithersburg	427	311	72.8	1498	500	512	486
Kennedy	299	194	64.9	1420	472	478	470
Magruder	491	367	74.7	1615	537	555	523
Northwest	392	301	76.8	1547	514	522	511
Paint Branch	398	318	79.9	1548	511	534	503
Poolesville	181	134	74.0	1639	541	565	534
Quince Orchard	424	350	82.5	1603	523	553	527
R. Montgomery	426	337	79.1	1760	584	599	576
Rockville	230	172	74.8	1514	503	520	491
Seneca Valley	315	212	67.3	1516	496	508	512
Sherwood	497	316	63.6	1607	525	553	529
Springbrook	415	296	71.3	1549	512	528	509
W. Johnson	452	360	79.6	1754	577	601	575
Watkins Mill	384	259	67.4	1468	479	505	483
Wheaton	259	163	62.9	1313	437	447	429
Whitman	450	409	90.9	1884	622	639	623
Wootton	545	499	91.6	1796	580	627	589
Special Schools ^b	104	7	6.7	1533	509	533	491

^a Class of 2006 includes June graduates only. SAT data are not reported for students who graduated in August 2005 or January 2006.

^b In 2006, special school enrollment includes 58 night school students who enrolled in MCPS high schools for one day in June in order to graduate.

Note: The combined score may differ by one point from the sum of the subtest scores because of rounding.

Table A3
Number of Test Takers and Mean Most Recent SAT Combined Scores of the MCPS Class of 2006^a
by High School and Demographic Group

	<u>All</u>		<u>Male</u>		<u>Female</u>		<u>African Am.</u>		<u>Asian Am.</u>		<u>Hispanic</u>		<u>White</u>		<u>FARMS</u>		<u>Spec. Ed</u>		<u>ELL</u>	
	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT	N Took	Mean SAT
All	7191	1634	3398	1648	3793	1621	1240	1360	1366	1710	691	1410	3884	1735	578	1316	371	1383	99	1148
B-CC	312	1784	147	1785	165	1784	48	1374	19	1755	16	1495	228	1893	12	1245	17	1459	1	n/r
Blair	522	1628	253	1679	269	1580	154	1249	105	1887	74	1311	189	1917	75	1217	22	1519	20	942
Blake	346	1556	137	1577	209	1542	97	1375	27	1558	24	1447	198	1657	15	1346	16	1230	3	n/r
Churchill	478	1827	243	1828	235	1825	16	1409	112	1898	26	1680	323	1837	4	n/r	36	1527	0	n/r
Damascus	294	1606	140	1586	154	1623	20	1412	30	1718	12	1436	231	1618	10	1304	8	1273	1	n/r
Einstein	234	1459	98	1457	136	1461	55	1320	42	1400	54	1300	83	1685	50	1253	14	1217	4	n/r
Gaithersburg HS	311	1498	152	1508	159	1489	66	1353	44	1517	49	1294	152	1622	39	1262	15	1246	11	1103
Kennedy	194	1420	87	1384	107	1449	77	1294	39	1474	29	1363	48	1622	31	1331	13	1135	2	n/r
Magruder	367	1615	180	1663	187	1568	48	1384	92	1624	27	1544	198	1674	26	1414	22	1393	2	n/r
Northwest	301	1547	135	1532	166	1559	76	1376	62	1593	22	1441	140	1642	27	1257	11	1150	0	n/r
Paint Branch	318	1548	158	1558	160	1538	109	1421	88	1629	20	1420	101	1638	21	1464	8	1224	1	n/r
Poolesville	134	1639	50	1617	84	1653	7	1350	8	1783	6	1542	113	1652	5	1518	9	1321	0	n/r
Quince Orchard	350	1603	163	1592	187	1613	37	1322	77	1678	24	1249	212	1665	14	1373	26	1253	1	n/r
R. Montgomery	337	1760	141	1698	196	1804	37	1496	90	1851	40	1488	170	1832	34	1443	13	1243	15	1274
Rockville	172	1514	87	1532	85	1496	23	1269	27	1600	35	1333	86	1628	31	1264	7	1270	1	n/r
Seneca Valley	212	1516	91	1525	121	1509	51	1416	35	1527	18	1411	108	1576	20	1340	10	1280	2	n/r
Sherwood	316	1607	152	1619	164	1595	42	1444	33	1532	14	1619	226	1649	16	1419	12	1489	4	n/r
Springbrook	296	1549	168	1579	128	1510	120	1381	79	1654	25	1441	72	1751	30	1370	7	1443	2	n/r
W. Johnson	360	1754	189	1746	171	1762	29	1523	57	1791	27	1676	247	1781	8	1430	38	1478	6	1400
Watkins Mill	259	1468	108	1531	151	1423	75	1328	41	1595	41	1338	101	1566	40	1322	10	1139	4	n/r
Wheaton	163	1313	64	1342	99	1295	33	1223	29	1416	69	1290	32	1363	61	1268	5	990	5	1076
Whitman	409	1884	215	1889	194	1879	6	1425	46	1932	23	1742	334	1896	2	n/r	23	1587	9	1452
Wootton	499	1796	236	1815	263	1780	12	1601	183	1836	15	1558	289	1792	7	1490	29	1633	5	1144
Special Schools	7	1533	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r

^a Class of 2006 includes June graduates only. SAT data are not reported for American Indian students or for groups with fewer than 5 test takers.

^b In 2006, special school enrollment includes 58 night school students who enrolled in MCPS high schools for one day in June in order to graduate.

Note: Mean scores are not reported (n/r) for subgroups with fewer than 5 test takers.

Table A4
Number of Test Takers and Mean Most Recent SAT Subtest Scores for the Class of 2006
as Reported by MCPS and the College Board

Demographic Group	MCPS- Graduates in the June Class of 2006 ^a (MCPS status verified by MCPS)				College Board College-Bound Seniors in the Class of 2006											
	N Took SAT	Critical Reading	Math	Writing	MCPS ^b (Not verified by MCPS)				Maryland (Includes public and private schools)				Nation (Includes public and private schools)			
					N Took SAT ^c	Critical Reading	Math	Writing	N Took SAT ^c	Critical Reading	Math	Writing	N Took SAT ^c	Critical Reading	Math	Writing
All	7191	539	558	537	7961	538	557	535	45231	503	509	499	1,465,744	503	518	497
Male	3398	542	575	531	3826	539	574	528	20806	505	527	493	674242	505	536	491
Female	3793	537	542	542	4135	537	542	541	24425	502	493	504	791502	502	502	502
African Am.	1240	457	452	451	1234	459	455	452	10834	430	418	427	150643	434	429	428
Asian Am.	1366	549	607	553	1407	545	609	548	3255	528	585	533	138303	510	578	512
Hispanic	691	468	479	463	768	478	488	473	1831	487	488	481	151761	456	463	451
White	3884	575	588	572	3517	574	588	571	23380	539	548	535	825921	527	536	519
Other ^c	0				410	526	538	530	1424	515	516	512	54469	494	513	493
Unreported ^c	0				598	559	565	549	4285	428	472	468	135346	487	506	482

^a The MCPS Class of 2006 are students who graduated in June 2006. All test takers took the new SAT.

^b The College Board report includes SAT test takers who withdrew from MCPS after they took the SAT and non-graduates.

^c N took critical reading and mathematics tests on the old or new versions of the SAT. About 6% of test takers reported by the College Board did not take the SAT writing test.

Note: MCPS does not report results separately for American Indian students because that population is so small. The race/ethnicity and gender of all MCPS-verified students is known. Some test takers did not report race/ethnicity to the College Board.