

Trends in ACT and SAT Testing Taking: 2006 to 2008

by

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In 2008, ACT participation in Montgomery County Public Schools (MCPS) reached an historic high of 23.7 percent (Table 1). In 2008, 20.1 percent of graduates took the ACT and the SAT, and 3.6 percent took the ACT only. In 2008, SAT participation decreased to 73.7 percent of graduates, a decline from the historic high of 79.0 percent for the Class of 2007. Only 53.5 percent of graduates took the SAT and not the ACT, a decrease of about 9 percentage points compared with the prior two graduating classes.

Table 1
Number and Percentage of Graduates in the
MCPS Classes of 2006 to 2008 Who Took the SAT and/or ACT

College Entrance Exam	N Took			% Took		
	2006	2007	2008	2006	2007	2008
ACT	1,454	1,737	2,342	15.3	17.9	23.7
SAT	7,191	7,660	7,274	75.8	79.0	73.7
ACT and SAT	1,253	1,599	1,986	13.2	16.5	20.1
ACT Only	201	138	356	2.1	1.4	3.6
SAT Only	5,938	6,061	5,288	62.6	62.5	53.5

Note. The sums of percentages of test taken by groups may differ by ± 0.1 point from the total percentage of test takers for the SAT or ACT because of rounding.

Between 2006 and 2008, ACT participation increased for students of all races/ethnicities (Table 2). However, the relative percentages of test takers in each racial/ethnic group were different for the ACT and SAT. In 2008, 33.3 percent of White students took the ACT compared with 18.8 percent and 15.7 percent of African American and Asian American students, respectively, and 9.9 percent of Hispanic students. In 2008, 85.5 percent of Asian American and 78.9 percent of White students took the SAT compared with 68.3 percent of African American and 54.1 percent of Hispanic students. Discussion about the relative performance of MCPS students on the ACT and SAT should consider differences in populations of students who took each test.

Table 2
 Percentage of Graduates in the MCPS Classes of 2006 to 2008
 Who Took the ACT and/or SAT by Race/Ethnicity

Race/Ethnicity	% Took ACT			% Took SAT		
	2006	2007	2008	2006	2007	2008
All Students	15.3	17.9	23.7	75.8	79.0	73.7
African American	13.2	15.1	18.8	65.9	71.6	68.3
Asian American	10.3	11.8	15.7	87.8	89.3	85.5
Hispanic	7.9	7.1	9.9	53.0	57.0	54.1
White	19.9	24.6	33.3	82.1	85.7	78.9

Note. Some students took both exams.

Comparisons of SAT and ACT test scores are problematic because the scores are not statistically equivalent. Three of the factors that contribute to score nonequivalence are differences in the range of possible scores, test content, and differences in correlations of the subtest scores.

Score Ranges. Combined SAT scores are reported in increments of 10 on a scale of 600 to 2400, a total of 181 possible score points. ACT composite scores are reported in increments of 1 on a scale of 1 to 36, a total of 36 possible score points. The scale for the SAT combined score has more score points than the scale for the ACT, therefore a single ACT composite score concords to a range of SAT scores.

Content Differences. The SAT measures critical reading, writing, and mathematical reasoning skills that are developed over time both inside and outside of school. The ACT is more closely linked to the high school curriculum and measures English, mathematics, reading, and science achievement. Students may perform slightly better on either the SAT or ACT because the content is more matched to their academic strengths.

Test Correlations. Although the correlations of the SAT total score and ACT composite score are about 0.9, correlations of SAT and ACT subtest scores are lower. Comparisons of results for the SAT and ACT subtest scores are not appropriate.

MCPS is not yet able to develop a local set of concordance tables because the number of students who take both tests is insufficient to provide adequate comparisons. Although more students are taking both tests, more scores are needed to conduct statistical analyses that take into account the score distributions, and the sparseness of scores at the extremes of the distribution.

One way of comparing relative performance is to examine standard deviation (SD) differences in group mean scores on the ACT (SD = 5) and SAT (SD = 300). Between 2006 and 2008, similar patterns in the racial/ethnic gaps in the

performance of Asian American and White students compared with African American and Hispanic students were observed for both the ACT and SAT (Table 3). On the ACT, White students performed an average of 7 points (1.4 SD) higher than African American students. On the SAT, White students performed at least 375 points (1.3 SD) higher, on average, than African American students.

Table 3
Mean ACT and SAT Scores of the MCPS Classes of 2006 to 2008

College Entrance Exam	Mean ACT Composite Score			Mean SAT Combined Score		
	2006	2007	2008	2006	2007	2008
All Students	23	24	24	1634	1624	1616
African American	18	18	18	1360	1357	1336
Asian American	25	26	26	1710	1706	1720
Hispanic	20	21	21	1410	1418	1401
White	25	25	25	1735	1736	1740

Note. A 300 point difference (1 SD) in performance for the SAT combined score is approximately equivalent to a 5 point difference (1 SD) in performance for the ACT composite score.

Table A1
College Entrance Examination Participation of the MCPS Classes of 2006 to 2008
by Demographic Group

Demographic Group	N Took ACT			% Took ACT			N Took SAT			% Took SAT		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
All	1454	1737	2342	15.3	17.9	23.7	7191	7660	7274	75.8	79.0	73.7
Male	533	711	1023	11.5	14.6	20.9	3398	3738	3475	73.4	76.9	71.0
Female	921	1026	1319	19.0	21.2	26.5	3793	3922	3799	78.2	81.1	76.2
African Am.	249	306	395	13.2	15.1	18.8	1240	1453	1433	65.9	71.6	68.3
Asian Am.	161	179	237	10.3	11.8	15.7	1366	1359	1294	87.8	89.3	85.5
Hispanic	103	104	159	7.9	7.1	9.9	691	837	867	53.0	57.0	54.1
White	940	1146	1542	19.9	24.6	33.3	3884	3995	3656	82.1	85.7	78.9
FARMS ^a	101	112	167	9.4	9.3	11.4	578	737	846	54.0	60.9	57.6
Special Education	81	107	149	10.0	14.8	18.8	371	334	319	45.9	46.1	40.3
ESOL ^b	11	5	9	4.0	1.6	2.8	99	121	145	35.7	39.3	45.2

Note. Some students took both the ACT and the SAT.

^a Students who received Free and Reduced-price Meals System services during Grade 12.

^b Students who received English for Speakers of Other Languages services during Grade 12.

Table A2
College Entrance Examination Participation of the MCPS Classes of 2006 to 2008
by Exam Taking Pattern and Demographic Group

High School	N			%			N			%			N			%		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
All	1253	1599	1986	13.2	16.5	20.1	5938	6061	5288	62.6	62.5	53.5	201	138	356	2.1	1.4	3.6
Male	449	650	857	9.7	13.4	17.5	2949	3088	2618	63.7	63.5	53.5	84	61	166	1.8	1.3	3.4
Female	804	949	1129	16.6	19.6	22.6	2989	2973	2670	61.6	61.5	53.6	117	77	190	2.4	1.6	3.8
African Am.	206	261	323	10.9	12.9	15.4	1034	1192	1110	54.9	58.7	52.9	43	45	72	2.3	2.2	3.4
Asian Am.	145	173	214	9.3	11.4	14.1	1221	1186	1080	78.5	78.0	71.4	16	6	23	1.0	0.4	1.5
Hispanic	74	96	121	5.7	6.5	7.6	617	741	746	47.4	50.5	46.6	29	8	38	2.2	0.5	2.4
White	827	1067	1319	17.5	22.9	28.5	3057	2928	2337	64.7	62.8	50.5	113	79	223	2.4	1.7	4.8
FARMS ^a	73	89	128	6.8	7.4	8.7	505	648	718	47.2	53.6	48.9	28	23	39	2.6	1.9	2.7
Special Education	57	75	96	7.0	10.3	12.1	314	259	223	38.8	35.7	28.2	24	32	53	3.0	4.4	6.7
ESOL ^b	6	1	8	2.2	0.3	2.5	93	120	137	33.6	39.0	42.7	5	4	1	1.8	1.3	0.3

Note. The sums of percentages of test taking groups may differ by ± 0.1 point from the total percentage of test takers for the SAT or ACT because of rounding.

^a Students who received Free and Reduced-price Meals System services during Grade 12.

^b Students who received English for Speakers of Other Languages services during Grade 12.

Table A3
College Entrance Examination Participation of the MCPS Classes of 2006 to 2008 by High School

High School	N Took ACT			% Took ACT			N Took SAT			% Took SAT		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
All ^a	1454	1737	2342	15.3	17.9	23.7	7191	7660	7274	75.8	79.0	73.7
B-CC	105	114	156	27.3	27.8	38.8	312	339	327	81.0	82.7	81.3
Blair	69	97	119	10.3	14.7	18.3	522	533	502	78.3	81.0	77.2
Blake	48	67	115	11.0	16.7	26.0	346	340	327	79.5	84.8	74.0
Churchill	125	173	210	23.9	33.0	42.3	478	484	411	91.2	92.4	82.7
Clarksburg ^b	0	0	39	--	--	15.8	0	0	115	--	--	46.6
Damascus	44	55	73	9.7	12.4	20.3	294	320	252	64.9	72.4	70.2
Einstein	41	28	32	12.4	7.3	10.1	234	262	223	70.9	68.4	70.1
Gaithersburg	70	58	88	16.4	13.6	18.4	311	326	310	72.8	76.2	64.7
Kennedy	42	40	37	14.0	12.0	12.3	194	227	227	64.9	68.0	75.2
Magruder	65	101	126	13.2	21.7	26.1	367	364	334	74.7	78.1	69.2
Northwest	31	51	59	7.9	11.9	13.4	301	349	323	76.8	81.2	73.4
Northwood ^b	0	0	57	--	--	19.4	0	0	178	--	--	60.5
Paint Branch	25	38	42	6.3	9.6	11.6	318	310	271	79.9	78.3	74.7
Poolesville	81	68	96	44.8	35.4	44.2	134	155	165	74.0	80.7	76.0
Quince Orchard	92	120	105	21.7	27.7	26.8	350	341	294	82.5	78.8	75.0
R. Montgomery	56	64	91	13.1	14.4	21.1	337	353	313	79.1	79.5	72.5
Rockville	18	20	32	7.8	7.2	12.0	172	202	166	74.8	72.7	62.4
Seneca Valley	27	42	44	8.6	12.6	15.2	212	227	175	67.3	68.0	60.3
Sherwood	114	109	157	22.9	21.2	31.6	316	416	397	63.6	80.8	79.9
Springbrook	43	49	58	10.4	11.2	15.5	296	340	268	71.3	77.6	71.7
Walter Johnson	118	113	142	26.1	28.2	31.6	360	331	373	79.6	82.5	83.1
Watkins Mill	28	51	50	7.3	12.8	14.2	259	269	232	67.4	67.3	66.1
Wheaton	18	25	39	6.9	8.3	16.1	163	225	187	62.9	75.0	77.3
Whitman	70	95	156	15.6	21.7	33.9	409	402	404	90.9	91.8	87.8
Wootton	122	156	217	22.4	27.3	38.5	499	529	495	91.6	92.5	87.9

Note. Some students took both the ACT and SAT. Results are not reported (--) for groups with fewer than five test takers.

^a Includes students enrolled in special schools.

^b Clarksburg and Northwood High Schools did not have graduating classes in 2006 or 2007.

Table A4
College Entrance Examination Participation of the MCPS Classes of 2006 to 2008 by Exam Taking Pattern and High School

High School	N			%			N			%			N			%		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
All ^a	1253	1599	1986	13.2	16.5	20.1	5938	6061	5288	62.6	62.5	53.5	201	138	356	2.1	1.4	3.6
B-CC	89	102	139	23.1	24.9	34.6	223	237	188	57.9	57.8	46.8	16	12	17	4.2	2.9	4.2
Blair	61	86	112	9.1	13.1	17.2	461	447	390	69.1	67.9	60.0	8	11	7	1.2	1.7	1.1
Blake	42	63	96	9.7	15.7	21.7	304	277	231	69.9	69.1	52.3	6	4	19	1.4	1.0	4.3
Churchill	115	158	172	21.9	30.2	34.6	363	326	239	69.3	62.2	48.1	10	15	38	1.9	2.9	7.6
Clarksburg ^b	0	0	24	--	--	9.7	0	0	91	--	--	36.8	0	0	15	--	--	6.1
Damascus	37	49	68	8.2	11.1	18.9	257	271	184	56.7	61.3	51.3	7	6	5	1.5	1.4	1.4
Einstein	34	25	25	10.3	6.5	7.9	200	237	198	60.6	61.9	62.3	7	3	7	2.1	0.8	2.2
Gaithersburg	58	53	79	13.6	12.4	16.5	253	273	231	59.3	63.8	48.2	12	5	9	2.8	1.2	1.9
Kennedy	33	34	34	11.0	10.2	11.3	161	193	193	53.8	57.8	63.9	9	6	3	3.0	1.8	1.0
Magruder	52	96	109	10.6	20.6	22.6	315	268	225	64.2	57.5	46.6	13	5	17	2.6	1.1	3.5
Northwest	27	48	52	6.9	11.2	11.8	274	301	271	69.9	70.0	61.6	4	3	7	1.0	0.7	1.6
Northwood ^b	0	0	41	--	--	13.9	0	0	137	--	--	46.6	0	0	16	--	--	5.4
Paint Branch	25	35	34	6.3	8.8	9.4	293	275	237	73.6	69.4	65.3	0	3	8	0.0	0.8	2.2
Poolesville	67	66	90	37.0	34.4	41.5	67	89	75	37.0	46.4	34.6	14	2	6	7.7	1.0	2.8
Quince Orchard	83	112	88	19.6	25.9	22.4	267	229	206	63.0	52.9	52.6	9	8	17	2.1	1.8	4.3
R. Montgomery	49	57	74	11.5	12.8	17.1	288	296	239	67.6	66.7	55.3	7	7	17	1.6	1.6	3.9
Rockville	18	18	18	7.8	6.5	6.8	154	184	148	67.0	66.2	55.6	0	2	14	0.0	0.7	5.3
Seneca Valley	22	38	32	7.0	11.4	11.0	190	189	143	60.3	56.6	49.3	5	4	12	1.6	1.2	4.1
Sherwood	87	100	136	17.5	19.4	27.4	229	316	261	46.1	61.4	52.5	27	9	21	5.4	1.7	4.2
Springbrook	31	44	45	7.5	10.0	12.0	265	296	223	63.9	67.6	59.6	12	5	13	2.9	1.1	3.5
Walter Johnson	107	105	121	23.7	26.2	26.9	253	226	252	56.0	56.4	56.1	11	8	21	2.4	2.0	4.7
Watkins Mill	23	46	44	6.0	11.5	12.5	236	223	188	61.5	55.8	53.6	5	5	6	1.3	1.3	1.7
Wheaton	17	23	30	6.6	7.7	12.4	146	202	157	56.4	67.3	64.9	1	2	9	0.4	0.7	3.7
Whitman	63	89	131	14.0	20.3	28.5	346	313	273	76.9	71.5	59.3	7	6	25	1.6	1.4	5.4
Wootton	111	150	191	20.4	26.2	33.9	388	379	304	71.2	66.3	54.0	11	6	26	2.0	1.0	4.6

Note. Results are not reported (--) for groups with fewer than five test takers.

^a Includes students enrolled in special schools.

^b Clarksburg and Northwood High Schools did not have graduating classes in 2006 or 2007.

Table A5
College Entrance Examination Participation and Performance of the MCPS Classes of 2006 to 2008 by High School

High School	N Took ACT			Mean ACT Composite Score			N Took SAT			Mean SAT Combined Score		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
All ^a	1454	1737	2342	23	24	24	7191	7660	7274	1634	1624	1616
B-CC	105	114	156	24	24	26	312	339	327	1784	1745	1751
Blair	69	97	119	22	24	25	522	533	502	1628	1679	1672
Blake	48	67	115	21	21	21	346	340	327	1556	1559	1490
Churchill	125	173	210	26	26	27	478	484	411	1827	1821	1820
Clarksburg ^b	0	0	39	--	--	21	0	0	115	--	--	1547
Damascus	44	55	73	23	22	22	294	320	252	1606	1570	1602
Einstein	41	28	32	21	23	23	234	262	223	1459	1454	1475
Gaithersburg	70	58	88	22	22	23	311	326	310	1498	1469	1514
Kennedy	42	40	37	17	19	18	194	227	227	1420	1427	1342
Magruder	65	101	126	22	24	23	367	364	334	1615	1584	1602
Northwest	31	51	59	20	22	23	301	349	323	1547	1522	1527
Northwood ^b	0	0	57	--	--	19	0	0	178	--	--	1401
Paint Branch	25	38	42	20	21	21	318	310	271	1548	1498	1489
Poolesville	81	68	96	23	26	25	134	155	165	1639	1736	1674
Quince Orchard	92	120	105	22	24	23	350	341	294	1603	1627	1635
R. Montgomery	56	64	91	24	23	26	337	353	313	1760	1781	1797
Rockville	18	20	32	22	24	21	172	202	166	1514	1579	1571
Seneca Valley	27	42	44	20	20	19	212	227	175	1516	1475	1466
Sherwood	114	109	157	22	23	23	316	416	397	1607	1608	1576
Springbrook	43	49	58	20	20	20	296	340	268	1549	1533	1479
Walter Johnson	118	113	142	26	24	26	360	331	373	1754	1733	1765
Watkins Mill	28	51	50	20	20	20	259	269	232	1468	1451	1408
Wheaton	18	25	39	18	19	17	163	225	187	1313	1326	1314
Whitman	70	95	156	27	26	27	409	402	404	1884	1880	1876
Wootton	122	156	217	26	27	26	499	529	495	1796	1785	1784

Note. Some students took the ACT and SAT. Results are not reported (--) for groups with fewer than five test takers.

^a Includes students enrolled in special schools.

^b Clarksburg and Northwood High Schools did not have graduating classes in 2006 or 2007.