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INFORMATION

Office of Shared Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

October 6, 2011

MEMORANDUM

To: High School Principals

From: Adrian B. Talley, Associate Superintendent 

Subject: INFORMATION: Successful Completion of Algebra 2 with a C or Higher by Grade 11

This memorandum provides data about Grade 11 students in Montgomery County Public Schools (MCPS) who have completed Algebra 2 with a C or higher by Grade 11. The attainment of a C or higher in Algebra 2 by Grade 11 is Key 5 of the Seven Keys to College Readiness. Research, nationally and within MCPS, indicates that high school students who successfully complete Algebra 2 are less likely to need remediation upon entry to college and more likely to enroll in college, remain in college, and earn a bachelor's degree. Also, research studies have indicated a correlation between Algebra 2 content knowledge and the SAT mathematics section. More importantly, the successful completion of Algebra 2 is one of the minimum qualifications for admission in the University System of Maryland.

The Algebra 2 M-Stat process was first created in the 2009–2010 school year; the 2010–2011 school year was the first year that MCPS monitored the Algebra 2 data point and the Algebra 2 performance targets were set for school years 2010–2011 through 2012–2013. For the 2010–2011 school year, the performance target for successful completion of Algebra 2 by Grade 11 was set at 55.0 percent and all students exceeded the target by 4.8 percentage points. From 2010 to 2011, the rate for successful completion of Algebra 2 by the end of Grade 11 increased about 6.0 percentage points (Figure 1).

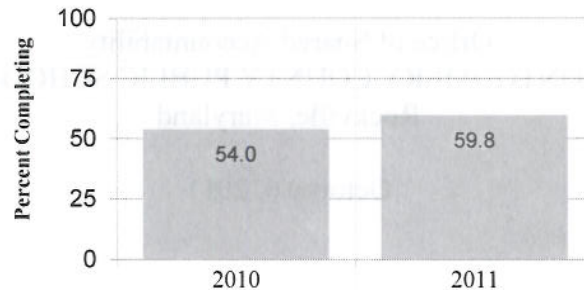


Figure 1. Successful Algebra 2 completion rates for Grade 11 students for 2010 and 2011.

Between 2010 and 2011, the successful Algebra 2 completion rate for all racial/ethnic groups increased at least 4.0 percentage points (Table 1). Of particular note, Black or African American and Hispanic/Latino students improved more than 5.0 percentage points; a similar increase was found for Asian and White students from 2010 to 2011.

Table 1
Algebra 2 Completion Rate by Race/Ethnicity

Racial/Ethnic Group	Algebra 2 with C or Higher by Grade 11		
	2010	2011	Difference
Asian	73.4	78.7	5.3
Black or African American	34.2	39.4	5.2
Hispanic/Latino	32.6	37.9	5.3
White	69.6	74.7	5.1
Two or More Races	61.3	65.3	4.0

The successful Algebra 2 completion rates for male and female students increased 6.4 and 5.3 percentage points, respectively (Table 2). Among students receiving special services, those who received Free and Reduced-price Meals System (FARMS) services showed the greatest gains from 2010 to 2011.

Table 2
Algebra 2 Completion Rate by Gender and Service Group

Gender/Service Group	Algebra 2 with C or Higher by Grade 11		
	2010	2011	Difference
Male	49.8	56.2	6.4
Female	58.2	63.5	5.3
Special Education	18.3	20.2	1.9
ESOL	16.9	16.2	-0.7
FARMS	28.5	32.6	4.1

The attached table indicates that 14 out of 25 comprehensive high schools met the Algebra 2 performance target for all students in 2011. Between 2010 and 2011, 22 out of 25 high schools improved their Algebra 2 completion rates. The table also contains detailed information about students' Algebra 2 attainment of a C or higher by Grade 11 by high school, race/ethnicity, gender, and special services. The table presents data for 2010 and 2011 for the purpose of displaying trend data.

If you have any questions, please contact Dr. Vasuki Rethinam, supervisor, Applied Research Unit, Office of Shared Accountability, at 301-279-3564.

ABT:sl

Attachment

Copy to:

Executive Staff

Mrs. Collins

Mrs. Green

Mrs. Liu

Dr. Rethinam

Dr. Steinberg

Dr. Mugge

Approved:


Frieda K. Lacey, Deputy Superintendent of Schools

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
All High Schools	10725	10091	5787	6033	54.0	59.8
Asian	1555	1543	1141	1214	73.4	78.7
Black or African American	2400	2119	820	834	34.2	39.4
Hispanic/Latino	2302	2124	750	805	32.6	37.9
White	4115	3964	2862	2963	69.6	74.7
Two or More Races	326	317	200	207	61.3	65.3
Male	5437	5111	2709	2872	49.8	56.2
Female	5288	4980	3078	3161	58.2	63.5
Special Education	1225	1061	224	214	18.3	20.2
ESOL	599	476	101	77	16.9	16.2
FARMS	2466	2287	704	745	28.5	32.6
James Hubert Blake, Paint Branch, Sherwood, Springbrook Clusters						
James Hubert Blake	430	413	221	258	51.4	62.5
Asian	38	39	26	34	68.4	87.2
Black or African American	186	168	74	73	39.8	43.5
Hispanic/Latino	62	66	28	43	45.2	65.2
White	129	129	83	102	64.3	79.1
Two or More Races	14	11	9	6	64.3	54.5
Male	196	185	98	110	50.0	59.5
Female	234	228	123	148	52.6	64.9
Special Education	39	35	13	10	33.3	28.6
ESOL	5	5	0	1	0.0	20.0
FARMS	97	109	28	45	28.9	41.3
Paint Branch	464	376	199	204	42.9	54.3
Asian	85	80	51	57	60.0	71.3
Black or African American	223	171	77	82	34.5	48.0
Hispanic/Latino	48	50	14	17	29.2	34.0
White	89	63	49	41	55.1	65.1
Two or More Races	16	12	7	7	43.8	58.3
Male	207	168	76	81	36.7	48.2
Female	257	208	123	123	47.9	59.1
Special Education	48	31	1	3	2.1	9.7
ESOL	2	1	--	--	--	--
FARMS	117	96	32	40	27.4	41.7
Sherwood	521	475	288	305	55.3	64.2
Asian	52	43	32	37	61.5	86.0
Black or African American	92	73	27	30	29.3	41.1
Hispanic/Latino	64	56	19	16	29.7	28.6
White	295	293	199	215	67.5	73.4
Two or More Races	18	9	11	6	61.1	66.7
Male	279	254	144	152	51.6	59.8
Female	242	221	144	153	59.5	69.2
Special Education	36	35	2	8	5.6	22.9
ESOL	41	27	6	3	14.6	11.1
FARMS	76	59	17	17	22.4	28.8

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
Springbrook	444	366	196	166	44.1	45.4
Asian	72	64	45	48	62.5	75.0
Black or African American	188	155	71	67	37.8	43.2
Hispanic/Latino	124	102	35	20	28.2	19.6
White	51	39	36	26	70.6	66.7
Two or More Races	9	6	9	5	100.0	83.3
Male	228	185	94	73	41.2	39.5
Female	216	181	102	93	47.2	51.4
Special Education	53	32	1	6	1.9	18.8
ESOL	29	19	4	2	13.8	10.5
FARMS	186	141	57	43	30.6	30.5
Winston Churchill, Richard Montgomery, Poolesville, Rockville, Thomas S. Wootton Clusters						
Winston Churchill	501	530	397	425	79.2	80.2
Asian	109	114	95	103	87.2	90.4
Black or African American	33	40	15	18	45.5	45.0
Hispanic/Latino	33	45	21	32	63.6	71.1
White	305	318	248	262	81.3	82.4
Two or More Races	20	13	17	10	85.0	76.9
Male	238	285	182	220	76.5	77.2
Female	263	245	215	205	81.7	83.7
Special Education	65	64	34	30	52.3	46.9
ESOL	0	0	--	--	--	--
FARMS	24	24	12	5	50.0	20.8
Richard Montgomery	481	490	280	315	58.2	64.3
Asian	124	130	93	100	75.0	76.9
Black or African American	85	64	27	25	31.8	39.1
Hispanic/Latino	82	89	32	38	39.0	42.7
White	180	193	120	141	66.7	73.1
Two or More Races	9	13	7	10	77.8	76.9
Male	240	222	120	134	50.0	60.4
Female	241	268	160	181	66.4	67.5
Special Education	41	38	3	6	7.3	15.8
ESOL	29	35	7	8	24.1	22.9
FARMS	77	87	29	33	37.7	37.9
Poolesville	274	267	220	218	80.3	81.6
Asian	57	66	54	61	94.7	92.4
Black or African American	8	17	4	8	50.0	47.1
Hispanic/Latino	16	20	13	11	81.3	55.0
White	174	154	134	129	77.0	83.8
Two or More Races	18	10	14	9	77.8	90.0
Male	144	119	111	87	77.1	73.1
Female	130	148	109	131	83.8	88.5
Special Education	22	17	9	4	40.9	23.5
ESOL	0	0	--	--	--	--
FARMS	20	9	10	2	50.0	22.2

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
Rockville	334	295	139	133	41.6	45.1
Asian	43	33	25	18	58.1	54.5
Black or African American	55	50	12	15	21.8	30.0
Hispanic/Latino	95	81	30	30	31.6	37.0
White	119	120	61	66	51.3	55.0
Two or More Races	20	10	10	4	50.0	40.0
Male	175	173	56	71	32.0	41.0
Female	159	122	83	62	52.2	50.8
Special Education	52	71	9	7	17.3	9.9
ESOL	24	9	4	1	16.7	11.1
FARMS	82	75	17	12	20.7	16.0
Thomas S. Wootton	614	579	492	491	80.1	84.8
Asian	197	211	176	201	89.3	95.3
Black or African American	28	33	15	16	53.6	48.5
Hispanic/Latino	40	41	26	27	65.0	65.9
White	328	273	261	229	79.6	83.9
Two or More Races	20	18	13	16	65.0	88.9
Male	333	286	261	239	78.4	83.6
Female	281	293	231	252	82.2	86.0
Special Education	63	29	24	13	38.1	44.8
ESOL	13	12	4	3	30.8	25.0
FARMS	40	19	20	8	50.0	42.1
Clarksburg, Northwest, Quince Orchard, Seneca Valley Clusters						
Clarksburg	404	410	195	229	48.3	55.9
Asian	58	61	45	51	77.6	83.6
Black or African American	130	118	42	44	32.3	37.3
Hispanic/Latino	72	81	30	34	41.7	42.0
White	140	133	78	91	55.7	68.4
Two or More Races	2	17	--	9	--	52.9
Male	185	208	80	111	43.2	53.4
Female	219	202	115	118	52.5	58.4
Special Education	40	51	7	8	17.5	15.7
ESOL	25	14	3	2	12.0	14.3
FARMS	115	102	34	34	29.6	33.3
Northwest	481	443	274	294	57.0	66.4
Asian	79	69	67	61	84.8	88.4
Black or African American	138	120	52	60	37.7	50.0
Hispanic/Latino	98	82	48	43	49.0	52.4
White	148	157	95	120	64.2	76.4
Two or More Races	17	14	11	9	64.7	64.3
Male	240	225	118	137	49.2	60.9
Female	241	218	156	157	64.7	72.0
Special Education	55	52	11	14	20.0	26.9
ESOL	0	0	--	--	--	--
FARMS	102	102	38	50	37.3	49.0

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
Quince Orchard	462	400	269	244	58.2	61.0
Asian	61	52	44	40	72.1	76.9
Black or African American	74	52	22	16	29.7	30.8
Hispanic/Latino	101	89	33	31	32.7	34.8
White	211	195	160	148	75.8	75.9
Two or More Races	13	11	8	9	61.5	81.8
Male	249	225	138	133	55.4	59.1
Female	213	175	131	111	61.5	63.4
Special Education	75	52	20	7	26.7	13.5
ESOL	33	15	5	2	15.2	13.3
FARMS	94	75	26	19	27.7	25.3
Seneca Valley	313	262	96	109	30.7	41.6
Asian	30	25	17	13	56.7	52.0
Black or African American	95	70	16	21	16.8	30.0
Hispanic/Latino	99	58	23	16	23.2	27.6
White	76	93	36	52	47.4	55.9
Two or More Races	12	15	4	6	33.3	40.0
Male	168	126	49	49	29.2	38.9
Female	145	136	47	60	32.4	44.1
Special Education	39	28	5	0	12.8	0.0
ESOL	32	19	4	2	12.5	10.5
FARMS	96	77	18	18	18.8	23.4
Montgomery Blair, Albert Einstein, John F. Kennedy, Northwood Clusters						
Montgomery Blair	640	630	383	362	59.8	57.5
Asian	110	115	88	91	80.0	79.1
Black or African American	181	167	77	69	42.5	41.3
Hispanic/Latino	154	156	55	52	35.7	33.3
White	170	164	139	135	81.8	82.3
Two or More Races	25	25	24	14	96.0	56.0
Male	323	329	183	178	56.7	54.1
Female	317	301	200	184	63.1	61.1
Special Education	28	39	3	10	10.7	25.6
ESOL	55	67	10	10	18.2	14.9
FARMS	201	212	72	68	35.8	32.1
Albert Einstein	358	345	118	139	33.0	40.3
Asian	22	31	12	18	54.5	58.1
Black or African American	86	75	33	18	38.4	24.0
Hispanic/Latino	177	135	37	40	20.9	29.6
White	58	91	34	57	58.6	62.6
Two or More Races	14	11	2	5	14.3	45.5
Male	175	141	50	42	28.6	29.8
Female	183	204	68	97	37.2	47.5
Special Education	50	40	3	2	6.0	5.0
ESOL	34	20	7	1	20.6	5.0
FARMS	157	125	43	31	27.4	24.8

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
John F. Kennedy	360	388	135	135	37.5	34.8
Asian	30	50	17	28	56.7	56.0
Black or African American	158	140	63	47	39.9	33.6
Hispanic/Latino	132	156	31	40	23.5	25.6
White	27	30	18	15	66.7	50.0
Two or More Races	12	11	6	5	50.0	45.5
Male	176	191	60	59	34.1	30.9
Female	184	197	75	76	40.8	38.6
Special Education	37	40	3	2	8.1	5.0
ESOL	36	40	3	9	8.3	22.5
FARMS	161	179	48	54	29.8	30.2
Northwood	322	290	118	128	36.6	44.1
Asian	23	17	11	13	47.8	76.5
Black or African American	100	92	28	28	28.0	30.4
Hispanic/Latino	116	94	30	33	25.9	35.1
White	72	83	42	52	58.3	62.7
Two or More Races	10	3	7	--	70.0	--
Male	176	148	50	65	28.4	43.9
Female	146	142	68	63	46.6	44.4
Special Education	46	35	6	7	13.0	20.0
ESOL	28	15	4	1	14.3	6.7
FARMS	109	116	26	43	23.9	37.1
Bethesda-Chevy Chase, Walter Johnson, Wheaton, Walt Whitman Clusters						
Bethesda-Chevy Chase	428	415	302	327	70.6	78.8
Asian	28	30	20	25	71.4	83.3
Black or African American	76	52	37	32	48.7	61.5
Hispanic/Latino	67	54	35	31	52.2	57.4
White	247	271	202	233	81.8	86.0
Two or More Races	7	7	6	6	85.7	85.7
Male	216	210	142	162	65.7	77.1
Female	212	205	160	165	75.5	80.5
Special Education	35	25	9	10	25.7	40.0
ESOL	16	14	2	2	12.5	14.3
FARMS	45	39	17	18	37.8	46.2
Walter Johnson	500	532	309	377	61.8	70.9
Asian	72	60	51	50	70.8	83.3
Black or African American	40	56	11	21	27.5	37.5
Hispanic/Latino	91	92	42	53	46.2	57.6
White	279	292	199	232	71.3	79.5
Two or More Races	16	31	5	21	31.3	67.7
Male	235	277	132	193	56.2	69.7
Female	265	255	177	184	66.8	72.2
Special Education	86	67	20	20	23.3	29.9
ESOL	24	23	10	11	41.7	47.8
FARMS	42	30	8	13	19.0	43.3

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
Wheaton	274	301	83	86	30.3	28.6
Asian	39	31	21	13	53.8	41.9
Black or African American	65	72	19	21	29.2	29.2
Hispanic/Latino	142	181	32	44	22.5	24.3
White	25	17	11	8	44.0	47.1
Two or More Races	3	0	--	--	--	--
Male	163	180	45	52	27.6	28.9
Female	111	121	38	34	34.2	28.1
Special Education	27	35	4	6	14.8	17.1
ESOL	44	53	3	6	6.8	11.3
FARMS	149	201	40	56	26.8	27.9
Walt Whitman	477	450	370	358	77.6	79.6
Asian	52	48	41	37	78.8	77.1
Black or African American	19	21	5	8	26.3	38.1
Hispanic/Latino	33	48	25	33	75.8	68.8
White	363	318	289	268	79.6	84.3
Two or More Races	10	14	10	12	100.0	85.7
Male	255	224	195	169	76.5	75.4
Female	222	226	175	189	78.8	83.6
Special Education	58	40	21	17	36.2	42.5
ESOL	24	17	15	5	62.5	29.4
FARMS	9	10	4	3	44.4	30.0
Damascus, Gaithersburg, Col. Zadok Magruder, Watkins Mill Clusters						
Damascus	337	317	182	186	54.0	58.7
Asian	14	21	10	13	71.4	61.9
Black or African American	25	28	6	11	24.0	39.3
Hispanic/Latino	45	34	20	14	44.4	41.2
White	245	222	141	139	57.6	62.6
Two or More Races	8	12	5	9	62.5	75.0
Male	179	153	103	80	57.5	52.3
Female	158	164	79	106	50.0	64.6
Special Education	48	38	6	4	12.5	10.5
ESOL	0	1	--	--	--	--
FARMS	40	34	11	12	27.5	35.3
Gaithersburg	459	388	201	192	43.8	49.5
Asian	51	39	36	29	70.6	74.4
Black or African American	121	100	42	42	34.7	42.0
Hispanic/Latino	140	122	34	39	24.3	32.0
White	142	112	86	73	60.6	65.2
Two or More Races	4	11	--	8	--	72.7
Male	229	195	92	83	40.2	42.6
Female	230	193	109	109	47.4	56.5
Special Education	58	57	8	8	13.8	14.0
ESOL	49	30	5	4	10.2	13.3
FARMS	137	125	38	41	27.7	32.8

(continued)

Number and Percentage of MCPS Grade 11 Students
Who Successfully Completed Algebra 2 with a C or Higher
from 2010 to 2011 by High School and Demographic Group

Cluster/ School/Group	N of Students Enrolled		N Completing Algebra 2 with a C or Higher		% Completing Algebra 2 with a C or Higher	
	2010	2011	2010	2011	2010	2011
Col. Zadok Magruder	447	424	202	232	45.2	54.7
Asian	69	73	43	51	62.3	69.9
Black or African American	70	74	16	31	22.9	41.9
Hispanic/Latino	119	101	18	35	15.1	34.7
White	181	157	123	105	68.0	66.9
Two or More Races	6	19	1	10	16.7	52.6
Male	223	235	90	128	40.4	54.5
Female	224	189	112	104	50.0	55.0
Special Education	41	42	0	10	0.0	23.8
ESOL	20	18	0	1	0.0	5.6
FARMS	126	109	20	36	15.9	33.0
Watkins Mill	400	305	118	120	29.5	39.3
Asian	40	41	21	22	52.5	53.7
Black or African American	124	111	29	31	23.4	27.9
Hispanic/Latino	152	91	39	33	25.7	36.3
White	61	47	18	24	29.5	51.1
Two or More Races	23	14	11	10	47.8	71.4
Male	205	167	40	64	19.5	38.3
Female	195	138	78	56	40.0	40.6
Special Education	83	68	2	2	2.4	2.9
ESOL	36	22	4	3	11.1	13.6
FARMS	164	132	39	44	23.8	33.3

Note. American Indian and Native Hawaiian or Other Pacific Islander students are included with all students but are not reported separately. Results are not reported (--) for groups with fewer than five students enrolled. FARMS = Free and Reduced-price Meals System; ESOL = English for Speakers of Other Languages.

Algebra 2 status is based on Grade 11 students at the end of school year who earned a course grade of C or higher in both semesters 1 and 2 by the end of Grade 11.