



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

TITLE: 2012 Advanced Placement Participation and Performance **DATE:** October 18, 2012

PRESENTER(S) E. Grace Chesney, Chief Accountability Officer

Mark Stout, Coordinator, Advanced Programs and Secondary Social Studies

OVERVIEW:

In 2012, more than 28 percent of all Howard County Public School System (HCPSS) high school students, and more than half of all seniors, enrolled in at least one Advanced Placement (AP) course. More than 82 percent of students participating in AP courses also took the corresponding AP exam. HCPSS students took a total of 8,183 AP exams in 2012. Eighty-two percent of these exams were scored 3 or higher, and 56 percent were scored 4 or higher.

The AP program in the HCPSS is a coordinated effort among various curricular programs, student services, and school based staff. It is an integral part of an overall effort to provide students with experiences that help them graduate from the HCPSS college and career ready.

RECOMMENDATION/FUTURE DIRECTION:

The HCPSS is making progress in preparing students for college-level work. School staff will continue efforts to identify students with AP potential and to further increase participation and performance levels in all student groups.

Submitted by:

**Approval/
Concurrence:**

E. Grace Chesney
Chief Accountability Officer

Renee A. Foose, Ed. D.
Superintendent

Background

Advanced Placement courses provide the opportunity for students to participate in challenging coursework which allows them to fully pursue interest in a particular subject area. The HCPSS offers 30 AP courses and 32 exams in the subject areas of art, computer science, English, mathematics, music, science, social studies, and world languages. Each of these curricular areas provides curriculum, common course syllabi, resources, and professional development opportunities for the various courses.

The *Bulletin for AP Students and Parents*, published by the College Board, states that participation in the AP Program has three benefits for students:

- Builds confidence in the ability to perform college-level work by helping to improve study habits, improve writing skills, and problem-solving ability.
- Provides the potential to enter college having already earned college credit or advanced placement.
- Improves chances for college success since research has shown that AP success typically equates to improving college success.¹

AP exams are administered in the corresponding courses in May of each year. An AP exam is a measure of a student's mastery of college-level studies in specific academic content areas while still in high school. Scores are reported on a scale from 1 to 5 and reflect the degree to which a student may be qualified for college credit or placement. According to the College Board, which owns and administers the AP program, an exam score of 3 or higher is a strong predictor of a student's ability to succeed in college and earn a degree.² Many colleges and universities use AP exam scores to award credit to incoming students and/or place them in higher level courses.

As part of the HCPSS focus on college and career readiness, every sophomore and junior in the HCPSS takes the PSAT in the fall of each school year. Schools may then utilize the PSAT AP Potential Index to identify students who can be successful in AP courses. In addition, schools hold information nights for parents and students about the AP program offerings. Teachers are also encouraged to "talent-spot" students and to personally invite them to consider taking AP courses. Schools also have Professional Learning Communities to coordinate school-based efforts to improve AP participation and performance.

The Office of Advanced Programs and G/T provides funding for school based testing coordinators to facilitate AP tests each year. In addition, the Office coordinates the distribution of fee waivers for those families in financial need. Last year, over 400 fee waivers were granted to HCPSS students.

¹ *Bulletin for AP Students and Parents 2011-12* (2011). College Board. Princeton, NJ.

² Geiser, S. & Santelices, V. (2004). *The role of advanced placement and honors courses in college admissions*. Berkeley, California: Center for Studies in Higher Education.

This report provides an overview of AP course and exam participation and AP exam performance among the HCPSS high school students in 2012.

AP Course Enrollment

Through AP courses, HCPSS students are able to maximize their educational experiences by participating in rigorous coursework while also engaging in academic practices that will help prepare them for post-secondary education. Over the last five years, AP course enrollment has increased. In 2012, more than 28 percent of all high school students and half of all seniors were enrolled in at least one AP course (Table 1).

Table 1: AP Course Participation by Grade, 2008-2012

Grade	End of Year Enrollment					Percent Enrolled in AP				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
12	3,785	3,830	4,031	4,039	4,035	46.3	46.4	48.3	49.6	51.6
11	3,730	3,908	3,952	3,847	4,124	33.7	32.1	41.5	40.4	44.4
10	4,068	4,133	4,008	4,336	4,132	17.3	17.0	17.9	18.2	19.4
9	4,320	4,268	4,516	4,266	4,237	0.3	0.5	0.4	0.6	0.6
9-12	15,903	16,139	16,507	16,488	16,528	23.4	23.3	26.2	26.5	28.6

Among the racial/ethnic student groups, the percent of students enrolled who took AP courses ranged from 13.8 percent among Black or African American students to 43.9 percent among Asian students. Eighty-one percent of students enrolled in AP courses took AP exams, with participation rates ranging from 70.8 to 87.7 percent among the racial ethnic groups (Table 2).

Table 2: 2012 Participation in AP Courses and AP Exams by Student Group

Student Group	End-of-Year Enrollment		Number Enrolled in AP Course		Percent Enrolled in AP Course		Number Enrolled in Course Taking AP Exam		Percent of Course Participants Taking Exam		Percent of Enrollment Taking Exam	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
All Students	16,488	16,528	4,376	4,734	26.5	28.6	3,546	3,834	81.0	81.0	21.5	23.2
Asian	2,442	2,506	992	1,099	40.6	43.9	842	964	84.9	87.7	34.5	38.5
Black/African American	3,241	3,374	393	465	12.1	13.8	274	329	69.7	70.8	8.5	9.8
Hispanic/Latino	1,205	1,274	211	252	17.5	19.8	163	196	77.3	77.8	13.5	15.4
White	8,636	8,357	2,523	2,664	29.2	31.9	2,062	2,146	81.7	80.6	23.9	25.7
Two or More Races	909	956	251	236	27.6	24.7	200	186	79.7	78.8	22.0	19.5

Note: There are fewer than 10 students enrolled in AP courses in the American Indian or Alaskan Native and Native Hawaiian or Other Pacific Islander student groups. Data are suppressed to protect student confidentiality.

AP Exam Participation and Performance

HCPSS students took 8,183 AP exams in 2012. Eighty-two percent of exams taken by HCPSS students earned scores of 3 or higher in 2012, 56.4 percent earned scores of 4 or higher. These percentages have remained relatively steady since 2008 (Table 3).

Table 3: Exams Scores of 3 or Higher and 4 or Higher, 2008–2012

School Year	3 or Higher		4 or Higher	
	Number	Percent	Number	Percent
2008	5,111	82.3	3,453	55.6
2009	5,468	83.0	3,966	60.2
2010	5,791	81.1	3,970	55.6
2011	6,436	81.5	4,263	54.0
2012	6,710	82.0	4,615	56.4
5 Year Change	+1,599	-0.3	+1,162	+0.8

Table 4 displays the number of students who took an AP exam, the number of exams taken, the percent earning scores of 3 or higher, and the percent earning scores of 4 or higher, disaggregated by racial/ethnic group. The percentage of students scoring 3 or higher ranged from 70.4 percent among Black/African American students to 84.3 percent among students who identify as Two or More Races and 84 percent of White students.

Table 4: AP Exam Participation and Performance by Racial/Ethnic Group, 2011 and 2012

Student Group	Number of Test Takers		Number of Exams		Percent of Scores 3 or Higher		Percent of Scores 4 or Higher	
	2011	2012	2011	2012	2011	2012	2011	2012
All Students	3,688	3,831	7,895	8,183	81.5	82.0	54.0	56.4
Asian	866	952	2,162	2,428	82.0	82.2	57.9	58.6
Black/African American	270	317	488	574	67.2	70.4	35.9	39.2
Hispanic/Latino	178	194	329	373	78.1	72.7	46.5	46.9
White	2,161	2,166	4,489	4,381	83.2	84.0	54.5	58.3
Two or More Races	208	188	419	408	80.4	84.3	55.8	56.9

Note: There are fewer than 10 students enrolled in AP courses in the American Indian or Alaskan Native and Native Hawaiian or Other Pacific Islander student groups. Data are suppressed to protect student confidentiality.

AP Exam Participation and Performance by School

Table 5, below, displays the 2012 AP exam participation and performance by school. River Hill and Centennial had the most test takers with 550 and 435 students participating, respectively. These schools also had the highest number of exams taken, with 1331 exams taken at River Hill and 1076 taken at Centennial.

The high schools with the highest percentage of exams scored 3 or higher include Marriotts Ridge (92.1 percent), Centennial (89.2 percent), Wild Lake (89.1 percent), and Mt. Hebron (85.5 percent).

Table 5: 2012 AP Participation and Performance by School

	Test Takers	Exams	Number of Exams Receiving a Score of:					Percent Exams Scored 3 or Higher
			1	2	3	4	5	
Atholton HS	305	691	32	75	185	190	209	84.5
Centennial HS	435	1076	28	88	244	303	413	89.2
Glenelg HS	291	575	20	77	181	162	135	83.1
Hammond HS	211	399	54	91	107	79	68	63.7
Howard HS	432	971	101	196	304	238	132	69.4
Long Reach HS	169	293	16	48	89	72	68	78.2
Marriotts Ridge HS	349	673	10	43	134	208	278	92.1
Mt. Hebron HS	339	754	40	69	132	211	302	85.5
Oakland Mills HS	198	365	42	81	112	72	58	66.3
Reservoir HS	331	663	35	83	195	194	156	82.2
River Hill HS	550	1331	54	146	335	399	397	85.0
Wilde Lake HS	211	367	14	26	72	91	164	89.1
All Schools	3,831	8,183	446	1,023	2,090	2,219	2,380	82.0

Additional information is provided in the appendices, as detailed below:

Appendix A: AP exam participation by high school, 2008 through 2012

Appendix B: AP exam performance by high school, 2008 through 2012

Appendix C: 2012 AP exam participation and performance by racial/ethnic group for each high school

Summary

HCPSS will continue its commitment to offer rigorous and challenging courses and other curricular opportunities for all students in order to support their preparation for academic achievement and success.

Appendix A

Table A1: AP Exam Participation by High School, 2008 through 2012

	Number of Test Takers						Number of Exams Taken					
	2008	2009	2010	2011	2012	5-Year Change	2008	2009	2010	2011	2012	5-Year Change
Atholton	237	241	255	287	305	68	505	508	571	696	691	186
Centennial	408	421	422	443	435	27	980	1097	1,040	1,079	1,076	96
Glenelg	264	250	258	296	291	27	525	484	468	612	575	50
Hammond	148	157	168	188	211	63	289	291	315	361	399	110
Howard	240	248	348	387	432	192	474	517	762	882	971	497
Long Reach	147	135	159	166	169	22	257	224	297	303	293	36
Marriotts Ridge	301	287	340	337	349	48	650	561	626	620	673	23
Mt. Hebron	248	286	336	335	339	91	536	660	752	788	754	218
Oakland Mills	132	121	142	165	198	66	263	240	266	304	365	102
Reservoir	229	231	276	333	331	102	452	478	522	638	663	211
River Hill	392	449	479	523	550	158	874	1,101	1,171	1,200	1,331	457
Wilde Lake	226	217	193	228	211	-15	405	427	350	412	367	-38

Appendix B

Table B1: AP Exam Performance by High School, 2008 through 2012

	Percentage of Scores 3 or Higher						Percentage of Scores 4 or Higher					
	2008	2009	2010	2011	2012	5-Year Change	2008	2009	2010	2011	2012	5-Year Change
Atholton	82.6	83.7	85.5	87.6	84.5	1.9	52.7	60.2	57.6	61.8	57.7	5.0
Centennial	87.7	91.2	90.2	88.5	89.2	1.5	66.3	72.8	69.7	66.7	66.5	0.2
Glenelg	79.0	77.7	75.2	78.1	83.1	4.1	42.5	47.5	41.2	44.1	51.7	9.2
Hammond	81.3	68.0	67.6	67.9	63.7	-17.6	53.3	45.0	40.3	40.4	36.8	-16.5
Howard	65.6	77.0	71.1	67.8	69.4	3.8	36.9	48.9	39.5	38.2	38.1	1.2
Long Reach	73.2	71.9	75.1	76.2	78.2	5.0	40.5	53.1	44.8	46.9	47.8	7.3
Marriotts Ridge	81.8	84.7	86.4	88.2	92.1	10.3	57.1	61.7	62.5	59.8	72.2	15.1
Mt. Hebron	90.5	90.3	87.1	88.1	85.5	-5.0	72.2	69.8	67.7	62.6	68.0	-4.2
Oakland Mills	80.6	76.7	77.1	77.6	66.3	-14.3	52.1	50.8	53.4	47.0	35.6	-16.5
Reservoir	80.1	78.9	77.0	78.5	82.2	2.1	50.2	53.6	50.2	49.1	52.8	2.6
River Hill	87.1	84.8	80.4	83.9	85.0	-2.1	61.1	63.6	55.3	55.5	59.8	-1.3
Wilde Lake	82.2	81.0	82.3	81.1	89.1	6.9	56.0	56.9	60.0	57.0	69.5	13.5

Appendix C

Table C1: 2012 AP Exam Participation and Performance by Racial/Ethnic Group for Each High School

School Name	Student Group	# Test Takers	# Exams Taken	Exams 3 or Higher (%)	Exams 4 or Higher (%)
Atholton	All Students	305	691	84.5	57.7
Atholton	Asian	86	231	84.4	58.0
Atholton	Black or African American	20	42	88.1	45.2
Atholton	Hispanic/Latino of any race	12	27	74.0	62.9
Atholton	White	174	359	85.5	59.6
Atholton	Two or more races	12	31	77.4	45.1
Centennial	All Students	435	1,076	89.2	66.5
Centennial	Asian	189	520	87.9	66.5
Centennial	Black or African American	6	14	99.9	78.5
Centennial	Hispanic/Latino of any race	15	36	97.2	63.9
Centennial	White	204	453	90.1	66.2
Centennial	Two or more races	20	51	90.2	70.6
Glenelg	All Students	291	575	83.1	51.7
Glenelg	Asian	29	50	62.0	28.0
Glenelg	Black or African American	14	33	84.8	51.5
Glenelg	Hispanic/Latino of any race	6	9	99.9	66.6
Glenelg	White	228	454	85.2	54.2
Glenelg	Two or more races	13	28	78.5	46.4
Hammond	All Students	211	399	63.7	36.8
Hammond	Asian	29	73	68.5	38.4
Hammond	Black or African American	50	73	45.2	17.8
Hammond	Hispanic/Latino of any race	11	24	58.3	20.8
Hammond	White	109	207	68.6	46.9
Hammond	Two or more races	12	22	68.2	18.2
Howard	All Students	432	971	69.4	38.1
Howard	Asian	60	158	58.2	27.2
Howard	Black or African American	50	103	69.9	33.0
Howard	Hispanic/Latino of any race	25	62	64.5	30.6
Howard	White	266	583	71.7	42.0
Howard	Two or more races	28	62	80.6	45.2

* When the number of test takers is fewer than 10, the results are suppressed to protect student confidentiality.

Appendix C

Table C1: 2012 AP Exam Participation and Performance by Racial/Ethnic Group for Each High School (continued)

School Name	Student Group	# Test Takers	# Exams Taken	Exams 3 or Higher (%)	Exams 4 or Higher (%)
Long Reach	All Students	169	293	78.2	47.8
Long Reach	Asian	30	52	86.5	65.4
Long Reach	Black or African American	28	48	79.2	43.7
Long Reach	Hispanic/Latino of any race	15	23	78.2	52.2
Long Reach	White	88	160	75.0	41.9
Long Reach	Two or more races	7	9	88.8	66.6
Marriotts Ridge	All Students	349	673	92.1	72.2
Marriotts Ridge	Asian	109	245	89.4	68.2
Marriotts Ridge	Black or African American	8	11	99.9	81.7
Marriotts Ridge	Hispanic/Latino of any race	8	14	85.7	71.4
Marriotts Ridge	White	205	362	93.6	74.0
Marriotts Ridge	Two or more races	17	39	94.8	79.5
Mt. Hebron	All Students	339	754	85.5	68.0
Mt. Hebron	Asian	118	293	80.9	63.5
Mt. Hebron	Black or African American	20	44	86.3	63.6
Mt. Hebron	Hispanic/Latino of any race	15	25	76.0	64.0
Mt. Hebron	White	167	355	89.3	72.7
Mt. Hebron	Two or more races	17	35	91.4	68.6
Oakland Mills	All Students	198	365	66.3	35.6
Oakland Mills	Asian	20	46	71.7	36.9
Oakland Mills	Black or African American	37	64	42.2	15.6
Oakland Mills	Hispanic/Latino of any race	29	43	34.9	18.6
Oakland Mills	White	106	200	77.5	45.5
Oakland Mills	Two or more races	6	12	99.9	33.3
Reservoir	All Students	331	663	82.2	52.8
Reservoir	Asian	60	134	73.9	41.8
Reservoir	Black or African American	43	72	72.2	41.7
Reservoir	Hispanic/Latino of any race	26	43	79.1	48.8
Reservoir	White	186	382	88.5	60.5
Reservoir	Two or more races	13	25	68.0	40.0

* When the number of test takers is fewer than 10, the results are suppressed to protect student confidentiality.

Appendix C

2012 AP Exam Participation and Performance by Racial/Ethnic Group for Each High School

School Name	Student Group	# Test Takers	# Exams Taken	Exams 3 or Higher (%)	Exams 4 or Higher (%)
River Hill	All Students	550	1,331	85.0	59.8
River Hill	Asian	191	558	86.9	63.3
River Hill	Black or African American	17	33	69.7	48.5
River Hill	Hispanic/Latino of any race	19	47	83.0	57.4
River Hill	White	296	627	84.7	57.6
River Hill	Two or more races	27	66	80.3	59.1
Wilde Lake	All Students	211	367	89.1	69.5
Wilde Lake	Asian	20	44	79.5	63.6
Wilde Lake	Black or African American	24	37	83.8	45.9
Wilde Lake	Hispanic/Latino of any race	13	20	80.0	55.0
Wilde Lake	White	139	239	91.2	73.6
Wilde Lake	Two or more races	15	27	100	85.2

* When the number of test takers is fewer than 10, the results are suppressed to protect student confidentiality.