

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

**TITLE:** Report on the Results of the 2010 Maryland School Assessment (MSA) **DATE:** September 23, 2010

**PRESENTER(S):** Jose Stevenson, Director of Student Assessment and Program Evaluation

**OVERVIEW:**

Howard County Public Schools System (HCPSS) students continue to perform well on the Maryland School Assessment according to the latest results released by the Maryland State Department of Education in July. In reading, despite some score fluctuations, elementary and middle school students continue to perform at least at the 90 percent proficient or advanced level. In mathematics, 89 percent of students in Grades 3 to 8 scored proficient or advanced. The improvement in Grades 3 and 5 marks the first time that students in elementary mathematics exceeded 90 percent proficient or advanced. In science, the percent of students scoring at proficient or advanced increased for students in the two tested grades, Grades 5 and 8.

Since the first full administration of the MSA in 2004, HCPSS students have made steady gains in reading and mathematics in every grade and student group, and notably the Hispanic, African American and special services student groups, bringing the schools closer to meeting the *No Child Left Behind* goal of having all students reach proficiency by 2014.

**RECOMMENDATION/FUTURE DIRECTION:**

While the performance of HCPSS students on the MSA is a cause for celebration, important to our current and future successes is the system's continuous commitment to ongoing analysis and reflection of curriculum, instruction, and programs for the benefit of all students. Staff in schools and Central Office will continue to apply the Plan, Do, Study, Act (PDSA) process to support improved academic performance for all students.

**Submitted  
by:**

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Theresa R. Alban  
Chief Operating Officer

**Approval/  
Concurrence:**

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Sydney L. Cousin  
Superintendent

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Jose Stevenson, Director  
Student Assessment and  
Program Evaluation

## Background

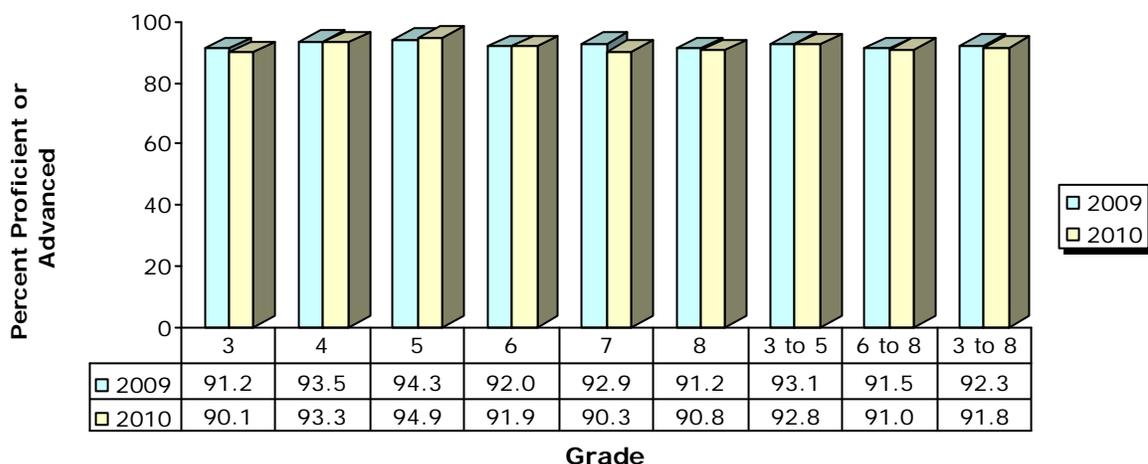
The annual Maryland School Assessment (MSA) in reading and mathematics provides measures for proficiency in these content areas to comply with student assessment mandates under the *No Child Left Behind (NCLB) Act*. All students in Grades 3 through 8 participate in MSA testing and all of their scores are reported to the school system and schools as basic, proficient, or advanced. The High School Assessments in English and Algebra provide evidence for proficiency for high school students. Some special education students who meet specific participation criteria based on their Individualized Education Plan (IEP) can take the Alternate MSA (Alt-MSA) or the Modified MSA (Mod-MSA). Students scoring at or above state standards on these tests are deemed proficient. Results from these tests are used in the calculation of whether schools meet the Adequate Yearly Progress targets under *NCLB*.

The MSA in science provides measures for proficiency to meet the student assessment requirement for science under *NCLB*. Results from this test, however, are not included in calculations of Adequate Yearly Progress. The science MSA is administered annually in Grades 5 and 8. The 2010 administration marks the third administration of this test.

The results presented in this report include performance on MSA, Alt-MSA and Mod-MSA combined. These results will not match those presented on the [www.mdreportcard.org](http://www.mdreportcard.org) web site of the Maryland State Department of Education. Those results include performance on MSA and Mod-MSA combined only.

## 2010 SYSTEMWIDE MSA READING RESULTS

Systemwide, Howard County Public School System (HCPSS) students in Grades 3 to 8 held MSA reading scores steady for 2010. Despite some minor fluctuations in the percentages of students who scored at proficient or advanced, students across all grades and grade bands continue to perform at least at the 90 percent proficient or advanced level. Overall, of the 22,194 students who participated in testing, 20,389 (91.8 percent) scored proficient or advanced in reading.



Elementary Student Groups. The 2010 performance of student groups in Grades 3 to 5 on the reading MSA showed fluctuations in comparison to 2009. Declines in the proficiency rates ranged from less than 1 percentage point for male and Asian students to 7.1 percentage points for special education students. The performance of female and White students remained unchanged. American Indian/Alaskan students, Hispanic students and students receiving Free and Reduced-Price Meals Services (FARMS) improved their proficiency rates. The performance of the American Indian/Alaskan group (a gain of 6.7 percentage points) needs to be interpreted with caution. Their small number (about 30 in 2009 and 2010) has a strong impact on calculations of percentage changes each year. Table 1 presents these data.

Table 1: Number and Percent of Students Achieving Proficiency in Reading MSA  
Grades 3–5, 2009 and 2010

Student Group	Number Tested		Number Proficient and Advanced		Percent Proficient and Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	10,713	10,695	9,974	9,925	93.1	92.8	-0.3
Male	5,628	5,582	5,155	5,080	91.6	91.0	-0.6
Female	5,085	5,113	4,815	4,842	94.7	94.7	0.0
Asian	1,737	1,833	1,659	1,745	95.5	95.2	-0.3
African American	2,385	2,395	2,042	2,012	85.6	84.0	-1.6
White	5,661	5,403	5,463	5,219	96.5	96.6	0.1
Hispanic	560	621	460	530	82.1	85.3	3.2
Am. Ind./Alaskan	30	29	28	29	93.3	100.0	6.7
Not Reported	340	414	317	391	93.2	94.4	1.2
ELL	439	446	322	319	73.3	71.5	-1.8
FARMS	1,569	1,870	1,236	1,494	78.8	79.9	1.1
Special Education	915	858	649	547	70.9	63.8	-7.1

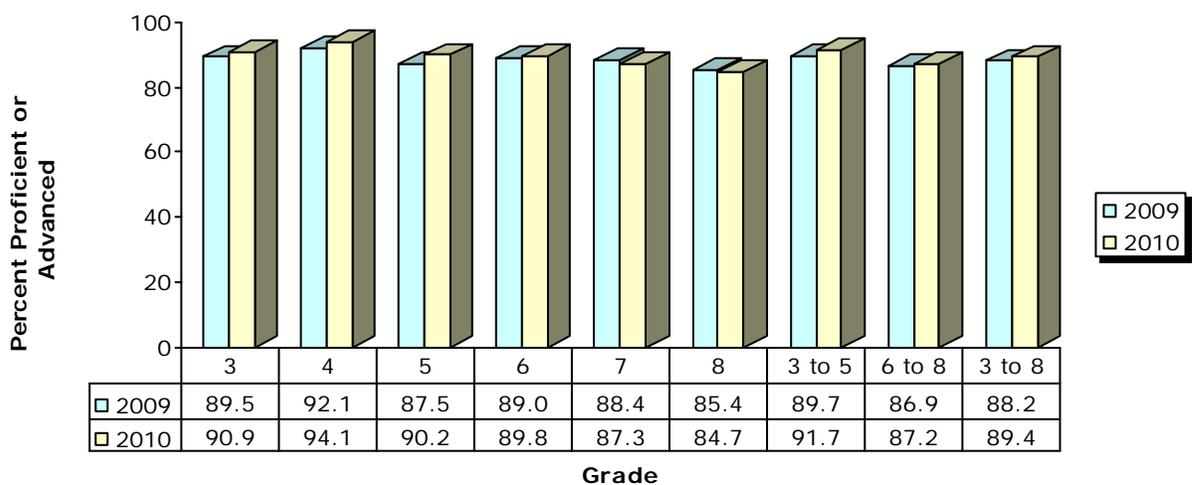
Middle Student Groups. Student groups in Grades 6 to 8 showed proficiency rate fluctuations similar to those of the elementary student groups. Proficiency rates declined by 1.5 percentage points or less for male, female, White, Hispanic and English Language Learners. The greatest decline came from the special education students (7.5 percentage points). Asian, African American, American Indian/Alaskan, and students receiving free and reduced meals services improved their performance in reading over 2009. Table 2 presents these data.

Table 2: Number and Percent of Students Achieving Proficiency in Reading MSA  
Grades 6–8, 2009 and 2010

Student Group	Number Tested		Number Proficient		Percent Proficient		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	11,732	11,499	10,735	10,464	91.5	91.0	-0.5
Male	6,153	5,933	5,495	5,263	89.3	88.7	-0.6
Female	5,579	5,566	5,244	5,199	94.0	93.4	-0.6
Asian	1,788	1,796	1,688	1,712	94.4	95.3	0.9
African American	2,565	2,640	2,106	2,183	82.1	82.7	0.6
White	6,551	6,208	6,256	5,848	95.5	94.2	-1.3
Hispanic	605	629	491	510	81.2	81.1	-0.1
Am. Ind./Alaskan	38	38	29	31	76.3	81.6	5.3
Not Reported	185	188	173	174	93.5	92.6	-0.9
ELL	305	186	177	105	58.0	56.5	-1.5
FARMS	1,551	1,868	1,123	1,388	72.4	74.3	1.9
Special Education	880	813	561	458	63.8	56.3	-7.5

## 2010 SYSTEMWIDE MSA MATHEMATICS RESULTS

Except for a slight decline in Grades 7 and 8 of about 1 percentage point, mathematics performance was on the rise at every grade level and grade band from the previous year. The improvement in Grades 3 and 5 marks the first time that students in elementary mathematics exceeded 90 percent proficient or advanced.



Overall, of the 22,300 students in Grades 3 to 8 who participated in testing, 19,929 (89.4 percent) scored proficient or advanced in mathematics, a gain of 1 percentage point over 2009.

Elementary Student Groups. Every student group in Grades 3 to 5 improved performance over 2009. Table 3 presents these data.

- African American and Hispanic students are now performing at least at the 81 percent proficient or advanced level for the first time, while ELL and students receiving FARMS are now performing at least at the 74 percent level.
- American Indian/Alaskan students had the largest gain (19.6 percentage points), reflecting the impact that their small numbers has on percentage changes each year. English Language Learners and students receiving free and reduced-price meals services increased by about 7 percentage points.
- Special education students and African American students gained 4.3 and 2.9 percentage points, respectively.
- Hispanic students also showed marked improvement of 9.2 percentage points.

Table 3: Number and Percent of Students Achieving Proficiency in Mathematics MSA Grades 3–5, 2009 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	10,761	10,748	9,653	9,856	89.7	91.7	2.0
Male	5,656	5,614	5,023	5,109	88.8	91.0	2.2
Female	5,105	5,134	4,625	4,749	90.6	92.5	1.9
Asian	1,770	1,865	1,690	1,792	95.5	96.1	0.6
African American	2,393	2,399	1,869	1,943	78.1	81.0	2.9
White	5,659	5,408	5,353	5,202	94.6	96.2	1.6
Hispanic	567	629	408	511	72.0	81.2	9.2
Am. Ind./Alaskan	31	32	23	30	74.2	93.8	19.6
Not Reported	341	415	304	384	89.1	92.5	3.4
ELL	488	499	331	373	67.8	74.7	6.9
FARMS	1,585	1,891	1,098	1,437	69.3	76.0	6.7
Special Education	913	857	541	545	59.3	63.6	4.3

Middle Student Groups. Student groups in Grades 6 to 8 maintained or improved their high levels of performance in mathematics over 2009, with some exceptions. Table 4 presents these results.

- The ELL and special education student groups decreased their percentage of students at proficient or advanced by 9.6 and 2.7 percentage points, respectively.
- Likewise, the performance of the American Indian/Alaskan student group declined by 10.9 percentage points, reflecting the impact that their small numbers has on percentage changes each year.
- Hispanic students had the greatest gain, 4.1 percentage points.

Table 4: Number and Percent of Students Achieving Proficiency in Mathematics MSA  
Grades 6–8, 2009 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	11,781	11,552	10,238	10,073	86.9	87.2	0.3
Male	6,179	5,960	5,295	5,149	85.7	86.4	0.7
Female	5,602	5,592	4,947	4,927	88.3	88.1	-0.2
Asian	1,815	1,825	1,742	1,756	96.0	96.2	0.2
African American	2,573	2,652	1,804	1,872	70.1	70.6	0.5
White	6,555	6,214	6,050	5,754	92.3	92.6	0.3
Hispanic	613	635	460	502	75.0	79.1	4.1
Am. Ind./Alaskan	39	38	33	28	84.6	73.7	-10.9
Not Reported	186	188	152	163	81.7	86.7	5.0
ELL	345	233	236	137	68.4	58.8	-9.6
FARMS	1,561	1,891	965	1,193	61.8	63.1	1.3
Special Education	885	815	481	421	54.4	51.7	-2.7

## 2010 SCHOOL-BY-SCHOOL MSA READING AND MATHEMATICS RESULTS

The 2010 MSA results indicate that HCPSS schools continue to show progress towards the 2014 goal of 100 percent proficiency in reading and mathematics for all of their students.

At the elementary level:

- In reading, every elementary school had 81 percent or more students scoring proficient or advanced. Of the 40 elementary schools, there were 29 (73 percent) with more than 90 percent of students scoring proficient or advanced. This number includes Cradlerock Lower School.
- In mathematics, every elementary school had more than 77 percent of students scoring proficient or advanced. There were 25 schools (63 percent) with more than 90 percent of students scoring proficient or advanced.

At the middle school level:

- In reading, every middle school had 80 percent or more students scoring proficient or advanced. Of the 19 middle schools, there were 11 (58 percent) with at least 90 percent of students scoring proficient or advanced. This number includes Cradlerock Upper School.
- In mathematics, every middle school had more than 73 percent of students scoring proficient or advanced. There were 10 schools (53 percent) with more than 90 percent of students scoring proficient or advanced.

Twenty-four elementary schools and 10 middle schools had 90 percent or more students scoring proficient or advanced in both reading and mathematics.

## 2004–2010 MSA READING AND MATHEMATICS TREND PERFORMANCE

The percentage of students in Grades 3 through 8 scoring proficient or advanced on the MSA has risen steadily since 2004. The greatest gains have occurred to students receiving special services and African American and Hispanic students in both reading and mathematics. Tables 5 and 6 present these trends.

Table 5: Student Proficiency in Reading MSA, Grades 3–8, 2004 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2004	2010	2004	2010	2004	2010	
Overall	22,749	22,194	19,701	20,374	86.6	91.8	5.2
Male	11,821	11,515	9,977	10,340	84.4	89.8	5.4
Female	10,905	10,679	9,716	10,038	89.1	94.0	4.9
Asian	2,652	3,629	2,400	3,458	90.5	95.3	4.8
African American	4,326	5,035	3,102	4,194	71.7	83.3	11.6
White	14,647	11,611	13,358	11,065	91.2	95.3	4.1
Hispanic	791	1,250	578	1,040	73.1	83.2	10.1
Am. Ind./Alaskan	46	67	39	60	84.8	89.6	4.8
Not Reported	264	602	216	565	81.8	93.9	12.1
ELL	447	632	234	424	52.3	67.1	14.8
FARMS	2,434	3,738	1,434	2,882	58.9	77.1	18.2
Special Education	1,908	1,671	956	1,004	50.1	60.1	10.0

Table 6: Student Proficiency in Mathematics MSA, Grades 3–8, 2004 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2004	2010	2004	2010	2004	2010	
Overall	22,754	22,300	17,407	19,936	76.5	89.4	12.9
Male	11,825	11,574	8,987	10,255	76.0	88.6	12.6
Female	10,906	10,726	8,419	9,675	77.2	90.2	13.0
Asian	2,654	3,690	2,367	3,550	89.2	96.2	7.0
African American	4,326	5,051	2,219	3,814	51.3	75.5	24.2
White	14,650	11,622	12,145	10,960	82.9	94.3	11.4
Hispanic	791	1,264	480	1,012	60.7	80.1	19.4
Am. Ind./Alaskan	46	70	27	58	58.7	82.9	24.2
Not Reported	264	603	171	547	64.8	90.7	25.9
ELL	447	732	236	510	52.8	69.7	16.9
FARMS	2,434	3,782	1,027	2,632	42.2	69.6	27.4
Special Education	1,908	1,672	681	966	35.7	57.8	22.1

The percentage of students in Grades 3 through 8 scoring at the advanced level has also risen steadily since 2004 on both the reading and the mathematics MSA. Particularly encouraging is the progress that students who receive special services have made in this regard. Tables 7 and 8 present these trends.

Table 7: Percentage of Students Scoring Advanced Proficiency, Reading MSA  
Grades 3–8, 2004 and 2010

Student Group	Number Tested		Number Advanced Proficiency		Percent Advanced Proficiency		Change in Advanced Proficiency (Percentage Points)
	2004	2010	2004	2010	2004	2010	
Overall	22,749	22,194	9,623	12,495	42.3	56.3	14.0
Male	11,821	11,515	4,480	5,873	37.9	51.0	13.1
Female	10,905	10,679	5,136	6,632	47.1	62.1	15.0
Asian	2,652	3,629	1,265	2,417	47.7	66.6	18.9
African American	4,326	5,035	947	1,813	21.9	36.0	14.1
White	14,647	11,611	7,104	7,536	48.5	64.9	16.4
Hispanic	791	1,250	199	403	25.2	32.2	7.0
Am. Ind./Alaskan	46	67	12	30	26.1	44.8	18.7
Not Reported	264	602	85	300	32.2	49.8	17.6
ELL	447	632	32	52	7.2	8.2	1.0
FARMS	2,434	3,738	309	968	12.7	25.9	13.2
Special Education	1,908	1,671	229	261	12.0	15.6	3.6

Table 8: Percentage of Students Scoring Advanced Proficiency, Mathematics MSA  
Grades 3–8, 2004 and 2010

Student Group	Number Tested		Number Advanced Proficiency		Percent Advanced Proficiency		Change in Advanced Proficiency (Percentage Points)
	2004	2010	2004	2010	2004	2010	
Overall	22,754	22,300	6,417	10,414	28.2	46.7	18.5
Male	11,825	11,574	3,453	5,405	29.2	46.7	17.5
Female	10,906	10,726	2,977	5,009	27.3	46.7	19.4
Asian	2,654	3,690	1,210	2,432	45.6	65.9	20.3
African American	4,326	5,051	372	1,091	8.6	21.6	13.0
White	14,650	11,622	4,688	6,322	32.0	54.4	22.4
Hispanic	791	1,264	93	277	11.8	21.9	10.1
Am. Ind./Alaskan	46	70	7	29	15.2	41.4	26.2
Not Reported	264	603	47	269	17.8	44.6	26.8
ELL	447	732	58	132	13.0	18.0	5.0
FARMS	2,434	3,782	117	613	4.8	16.2	11.4
Special Education	1,908	1,672	124	221	6.5	13.2	6.7

## 2010 MSA SCIENCE RESULTS

System results on the 2010 Science MSA (Table 9) show that the percent of students scoring proficient or advanced increased for Grades 5 and 8 over last year. At Grade 5, the percent of students scoring at proficient or advanced increased 2.2 percentage points, from 76.4 in 2009 to 78.6 in 2010. The percent of Grade 8 students scoring at proficient or advanced increased slightly, from 85.7 in 2009 to 86.4 in 2010.

Table 9: Number and Percent of Students Achieving Proficiency in Science MSA  
Grades 5 and 8, 2009 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Grade 5	3,755	3,552	2,869	2,793	76.4	78.6	2.2
Grade 8	4,075	3,899	3,492	3,370	85.7	86.4	0.7

Elementary Student Groups. Most student groups in Grade 5 improved their high levels of performance in science over 2009, with some exceptions (see Table 10).

- The ELL and special education student groups decreased their percentage of students at proficient or advanced by 8.5 and 3.3 percentage points, respectively.
- Hispanic students had the greatest gain, 11.2 percentage points.

Table 10: Number and Percent of Students Achieving Proficiency in Science MSA  
Grade 5, 2009 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	3,755	3,552	2,869	2,793	76.4	78.6	2.2
Male	1,926	1,883	1,473	1,482	76.5	78.7	2.2
Female	1,829	1,669	1,396	1,311	76.3	78.6	2.3
Asian	583	606	493	515	84.6	85.0	0.4
African American	848	828	456	473	53.8	57.1	3.3
White	2,023	1,805	1,744	1,603	86.2	88.8	2.6
Hispanic	206	204	98	120	47.6	58.8	11.2
Am. Ind./Alaskan*	8	8	5	7	62.5	87.5	25.0
Not Reported	87	101	73	76	83.9	75.2	-8.7
ELL	129	117	43	29	33.3	24.8	-8.5
FARMS	552	633	228	303	41.3	47.9	6.6
Special Education	301	284	118	102	39.2	35.9	-3.3

\*The performance associated with the performance of American Indian/Alaskan students are affected by the small numbers and, therefore, must be interpreted with caution.

Middle Student Groups. Student groups in Grade 8 maintained or improved their high levels of performance in mathematics over 2009, with one exception (see Table 11). The ELL student group decreased their percentage of students at proficient or advanced by 12.6 points.

Table 11: Number and Percent of Students Achieving Proficiency in Science MSA  
Grade 8, 2009 and 2010

Student Group	Number Tested		Number Proficient or Advanced		Percent Proficient or Advanced		Change in Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Overall	4,075	3,899	3,492	3,370	85.7	86.4	0.7
Male	2,135	2,033	1,838	1,757	86.1	86.4	0.3
Female	1,940	1,866	1,657	1,612	85.4	86.4	1.0
Asian	625	604	570	552	91.2	91.4	0.2
African American	882	868	588	600	66.7	69.0	2.3
White	2,319	2,160	2,159	2,024	93.1	93.7	0.6
Hispanic	188	215	127	152	67.6	70.7	3.1
Am. Ind./Alaskan	13	9	8	6	61.5	66.7	5.2
Not Reported	48	43	43	35	89.6	81.4	-8.2
ELL	110	59	53	21	48.2	35.6	-12.6
FARMS	523	613	272	349	52.0	56.9	4.8
Special Education	258	240	109	104	42.2	43.3	1.0

## Elementary School Results

The percentage of students scoring at proficient or advanced increased at most elementary schools from last year. Data indicate that:

- Twenty-six of the county's 40 elementary schools showed gains. This includes Deep Run, Stevens Forest, Talbott Springs, and Worthington, which experienced double-digit gains (14.5, 12.2, 21.5, and 10.4 percentage points, respectively). The total number of schools includes Cradlerock Lower.
- Nineteen elementary schools had at least 83 percent of their students scoring at proficient or advanced, including 11 that had 90 percent or more of their students scoring at this level in 2010.
- Thirty-three elementary schools saw an increase in the percentage of students at the **advanced** level over 2009. Six of these schools had increases of at least 13 percentage points or more (see Table 12).

Table 12: Grade 5 Students in Selected Schools Achieving Advanced Proficiency  
Science MSA, 2009 and 2010

School	Number Tested		Number Advanced Proficiency		Percent Advanced Proficiency		Change in Advanced Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Bushy Park	164	104	27	31	16.5	29.8	13.3
St. John's Lane	97	97	14	29	14.4	29.9	15.5
Stevens Forest	53	42	0	6	0.0	14.3	14.3
Triadelphia Ridge	87	86	15	31	17.2	36.0	18.8
Waverly	83	93	12	28	14.5	30.1	15.6
Worthington	79	57	11	19	13.9	33.3	19.4

### Middle School Results

At Grade 8, 11 of the 19 middle schools saw an increase in the percentage of students scoring at proficient or advanced from 2009. The total number of middle schools includes Cradlerock Upper. Additionally,

- Thirteen middle schools had at least 85 percent of their students scoring at proficient or advanced. This includes 9 schools that had more than 90 percent of their students scoring at this level in 2010.
- Twelve schools showed increases in the percentage of students scoring at the **advanced** level from 2009. Six of these schools had increases of at least 3 percentage points or more. These results are displayed in Table 13.

Table 13: Grade 8 Students in Selected Schools Achieving Advanced Proficiency  
Science MSA, 2009 and 2010

School	Number Tested		Number Advanced Proficiency		Percent Advanced Proficiency		Change in Advanced Proficiency (Percentage Points)
	2009	2010	2009	2010	2009	2010	
Burleigh Manor	232	231	65	76	28.0	32.9	4.9
Cradlerock Upper	134	145	7	12	5.2	8.3	3.1
Folly Quarter	203	177	41	50	20.2	28.2	8.0
Glenwood	225	218	34	41	15.1	18.8	3.7
Hammond	215	196	38	41	17.7	20.9	3.1
Patapsco	231	203	45	54	19.5	26.6	7.1

## **Summary of Results**

HCPSS elementary and middle schools continue to improve the performance of students on the MSA. Over 90 percent of students in Grades 3 to 8 scored proficient or advanced on the reading MSA. Almost the same percentage (89 percent) scored proficient or advanced on the mathematics MSA.

In 2010 HCPSS elementary and middle school students continued a trend that started in 2004 towards higher percentages of achieving students. This is especially true of students who receive special services and African American and Hispanic students. Achievement gains of this magnitude reflect the continuous success of school initiatives, student monitoring, parental involvement, professional development, and administrative support.

While this school and student performance is encouraging, the 2010 MSA results also showed that there are opportunities for improvement. Special education students and English Language Learners decreased their percentage of students who were proficient or advanced in reading and mathematics in middle school. On the other hand, students in these two groups saw progress in elementary mathematics.

Staff in schools and Central Office will continue to apply the Plan, Do, Study, Act (PDSA) process to support improved academic performance for all students.