

Massachusetts Comprehensive Assessment System

Results of Spring 2010

ELA (Gr.3-8 & 10) Mathematics (Gr.3-8 & 10),
Science (Gr. 5, 8, and high school)

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MCAS Results – Spring 2010 Report Summary

Background

- This report presents the results of the MCAS tests administered in 2010 in English Language Arts (ELA) grades 3-8 and 10; Mathematics grades 3-8 and 10; and Science and Technology/Engineering (STE) grades 5, 8, and high school.

English Language Arts

Changes from 2009:

- Both passing and proficiency rates are up substantially in grade 3. Eighty-two percent (82%) of 3rd graders passed the ELA test, up 5 points compared to last year; and 37% scored at the proficient level of higher, up 6 points compared to SY2008-09.
- Students in grades 4 and 10 also demonstrated gains in their passing rates; and 5th and 7th graders saw notable gains in their proficiency rates (3 and 4 points respectively). For the first time, a majority of 7th graders (52%) reached proficiency.
- Areas of concern include a 4-point drop in the passing rate for grade 5, down to 79%; and grades 6 and 8 which saw a one point drop each to 79% and 85% passing, respectively.
- The percentage of students who scored at the proficient level or above increased or remained constant across all grades except grades 8 and 10. Despite the 92% passing rate for 10th graders, there was a 4-point drop in their proficiency rate (60%).
- Black and Hispanic students saw gains in proficiency rates in grades 3, 5, 6, and 7. Black students also demonstrated a 1-point increase in the 8th grade proficiency rate. The 3rd grade gains are especially notable, with an 8-point increase for Black students (33% proficient or above), and a 7-point increase for Hispanic students (32% proficient or above).
- ELL students demonstrated gains in proficiency rates across all grades. ELLs saw a double-digit gain in the 3rd grade proficiency rate, from 22% to 33%. Similarly, ELLs in 8th grade saw a 10-point gain in the proficiency rate, from 25% to 35%. In grade 10, where the district as a whole saw a 4-point decline, ELL students experienced a 5-point increase in their proficiency rate.
- The percentage of students with disabilities scoring at the proficient level or above increased in grades 3, 6, and 7. However, the proficiency rates for this group of students remain below 20% across all grades.

Comparisons with State:

- The improvement in passing rates exceeded or equaled state gains in four of the seven grades tested (grades 3, 4, 7, and 10).
- Changes in the proficiency rates in three of the seven grades tested also exceeded or equaled state gains. (grades 3, 4, 5, and 7).

Mathematics

Changes from 2009:

- The percentage of students passing Math in 2010 increased in almost all grades. The only exception was grade 10, where the rate remained constant at 86%. Third and 8th graders saw an 8-point gain.
- The rise in proficiency rates is also substantial across all elementary and middle grades. Third and 7th grade proficiency rates increased by double digits. However, the 10th grade proficiency rate dropped 2 points to 60%.
- Black students saw gains in proficiency rates in grades 3, 5, 6, 7, and 8. Hispanic students saw gains across all grades, except grade 10. In grade 3, the proficiency rate for Hispanic students went up 12 percentage points, to 39%. Black students saw 9-point gains in grades 3, 7, and 8.
- ELL students saw gains in their proficiency rates across all grades except grade 10. Most notable were the 3rd grade gain of 15 points, and the 7th grade gain of 10 points.
- Students with disabilities also saw increases in their proficiency rates in grades 3, 5, 6, 7, and 8. The 3rd grade gain was 7 points, with 20% of SPED students scoring at the proficient level or above. They experienced a 1-point drop in 4th grade and a 3-point drop in 10th grade.

Comparisons with State:

- The one-year gains in passing rates in all of the seven grades tested exceeded or equaled state gains by three to five percentage points.
- Changes in proficiency rates for all but grade 10 also exceeded state gains by one to six percentage points .

Long Term Trends in Racial Achievement Gap:

- In 10th grade ELA, the gap in passing rates between Black and Hispanic students compared to White students has narrowed very significantly: from 35 points in 1998 to 5 points in 2010, with 90% or more students in every racial group passing the MCAS.
- The racial gap in proficiency rates is also smaller in 10th grade both compared to last year and compared to 1998. However at 25 percentage points, this gap remains large.
- In 10th grade Math, the gap in passing rates between Black and Hispanic students and their White peers has narrowed significantly since 1998, from 39 points to 9 points.
- As in ELA, the proficiency gap has also decreased in some grades: the gap between Black and Hispanic students and their White peers decreased in grades 6, 8, and 10. In 7th grade however, White students saw a 17 point gain in proficiency rate, which was not matched by the 9 and 8-point gains made by Black and Hispanic students respectively, thus increasing the gaps.

High School – Competency Determination

- To date, 66% of the class of 2012 (grade10 students in 2010) has already met or partially met the state graduation requirements by passing ELA, Mathematics, and Science. This represents an 8-point gain compared to the class of 2010 (57%) and a 1-point gain compared to the class of 2011 (65%).
- Forty-four (44%) of students in the class of 2012 have fully met the new CD standard by performing at the *Proficient* level or higher in both ELA and Math and by performing at the *Needs Improvement* level or higher in Science. This is the same percentage as the class of 2011, but higher than the 39% for the class of 2010.
- Results of the high school Science & Technology/Engineering tests show that a majority of students in the class of 2012 (73%) have already met their new STE competency determination requirement.


MCAS English Language Arts Results

Percent Difference in Passing, Proficient or Higher

2009 - 2010


English Language Arts % Passing (Needs Improvement or higher)

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 3	77%	82%	5	90%	93%	3
Grade 4	74%	75%	1	89%	89%	0
Grade 5	83%	79%	-4	92%	91%	-1
Grade 6	80%	79%	-1	90%	90%	0
Grade 7	84%	84%	0	93%	93%	0
Grade 8	86%	85%	-1	93%	94%	1
Grade 10	91%	92%	1	96%	96%	0

 Exceed or equal State gains

English Language Arts % Proficient & Advanced / Above Proficient

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 3	31%	37%	6	57%	63%	6
Grade 4	30%	30%	0	54%	54%	0
Grade 5	38%	41%	3	63%	63%	0
Grade 6	43%	44%	1	66%	69%	3
Grade 7	48%	52%	4	70%	72%	2
Grade 8	59%	58%	-1	78%	78%	0
Grade 10	64%	60%	-4	79%	78%	-1

 Exceed or equal State gains

**English Language Arts % Proficient & Advanced/Above Proficient
by Racial/Ethnic Group**

	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 3					
AA/Black	27%	24%	25%	33%	8
Asian	46%	50%	45%	46%	1
Latino/Hispanic	26%	23%	25%	32%	7
White	54%	48%	55%	64%	9
Grade 4					
AA/Black	26%	19%	25%	23%	-2
Asian	52%	44%	51%	47%	-4
Latino/Hispanic	23%	20%	26%	24%	-2
White	56%	46%	49%	54%	5
Grade 5					
AA/Black	32%	31%	32%	34%	2
Asian	60%	59%	60%	64%	4
Latino/Hispanic	35%	30%	31%	36%	5
White	61%	61%	59%	59%	0
Grade 6					
AA/Black	30%	37%	37%	38%	1
Asian	63%	71%	66%	66%	0
Latino/Hispanic	35%	38%	36%	40%	4
White	62%	60%	65%	62%	-3
Grade 7					
AA/Black	41%	39%	40%	42%	2
Asian	69%	70%	75%	73%	-2
Latino/Hispanic	41%	40%	39%	45%	6
White	72%	75%	68%	76%	8
Grade 8					
AA/Black	48%	49%	51%	52%	1
Asian	74%	76%	80%	81%	1
Latino/Hispanic	48%	51%	55%	52%	-3
White	80%	79%	82%	75%	-7
Grade 10					
AA/Black	40%	48%	56%	53%	-3
Asian	76%	80%	81%	80%	-1
Latino/Hispanic	43%	50%	59%	54%	-5
White	74%	79%	85%	78%	-7

English Language Arts % Proficient & Advanced/Above Proficient by other AYP Subgroups

	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 3					
Students w/ Disab	12%	10%	10%	14%	4
LEP/FLEP	26%	21%	22%	33%	11
Low Income	27%	25%	26%	32%	6
Grade 4					
Students w/ Disab	7%	6%	7%	6%	-1
LEP/FLEP	28%	18%	25%	27%	2
Low Income	26%	21%	25%	25%	0
Grade 5					
Students w/ Disab	11%	8%	11%	11%	0
LEP/FLEP	37%	29%	29%	34%	5
Low Income	36%	32%	33%	36%	3
Grade 6					
Students w/ Disab	9%	12%	12%	14%	2
LEP/FLEP	24%	30%	34%	37%	3
Low Income	35%	39%	38%	40%	2
Grade 7					
Students w/ Disab	10%	9%	11%	14%	3
LEP/FLEP	26%	16%	30%	38%	8
Low Income	43%	42%	41%	45%	4
Grade 8					
Students w/ Disab	18%	17%	21%	18%	-3
LEP/FLEP	18%	20%	25%	35%	10
Low Income	50%	51%	55%	53%	-2
Grade 10					
Students w/ Disab	12%	19%	23%	18%	-5
LEP/FLEP	23%	27%	23%	28%	5
Low Income	45%	54%	59%	54%	-5


MCAS Mathematics Results

Gains in Percent Passing, Proficient or Higher

2009-2010


Mathematics % Passing (Needs Improvement or higher)

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 3	68%	76%	8	85%	89%	4
Grade 4	75%	78%	3	89%	89%	0
Grade 5	67%	72%	5	83%	83%	0
Grade 6	64%	67%	3	84%	84%	0
Grade 7	60%	65%	5	79%	80%	1
Grade 8	56%	64%	8	76%	79%	3
Grade 10	86%	86%	0	93%	92%	-1

 Exceed or equal State gains

Mathematics % Proficient & Advanced / Above Proficient

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 3	33%	43%	10	60%	65%	5
Grade 4	27%	28%	1	48%	48%	0
Grade 5	33%	39%	6	54%	55%	1
Grade 6	33%	38%	5	57%	59%	2
Grade 7	28%	38%	10	49%	53%	4
Grade 8	28%	34%	6	48%	51%	3
Grade 10	62%	60%	-2	75%	75%	0

 Exceed or equal State gains

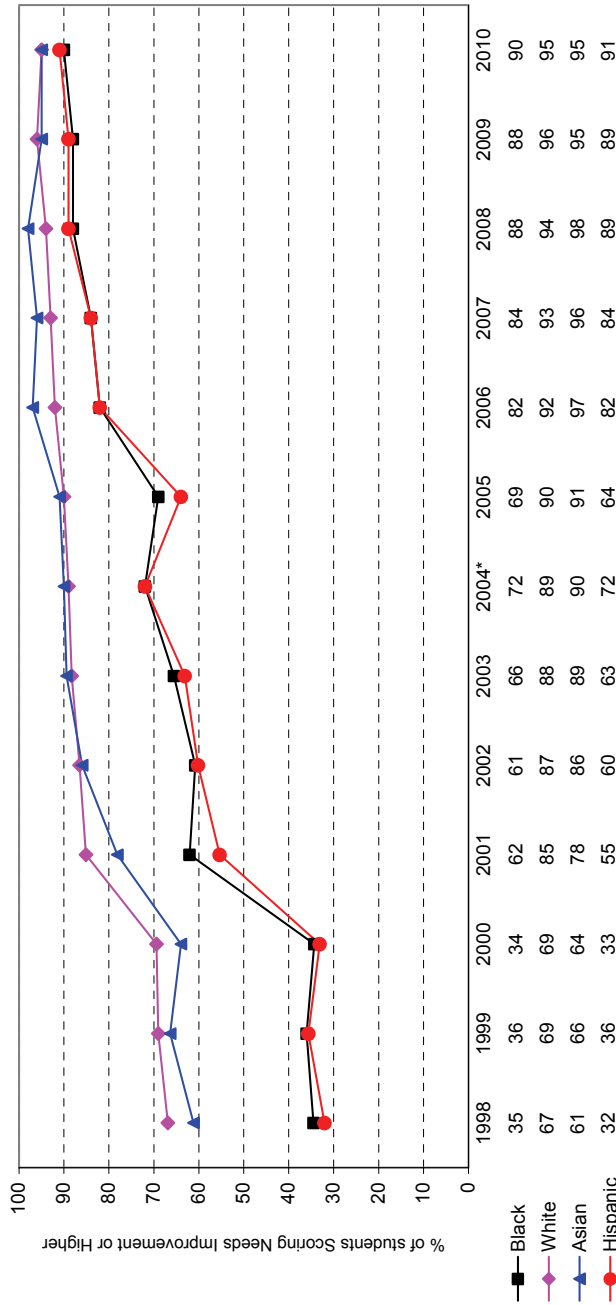
**Mathematics % Proficient & Advanced/Above Proficient
by Racial/Ethnic Group**

	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 3					
AA/Black	31%	29%	23%	32%	9
Asian	64%	69%	61%	73%	12
Latino/Hispanic	28%	29%	27%	39%	12
White	55%	55%	55%	70%	15
Grade 4					
AA/Black	18%	23%	21%	20%	-1
Asian	64%	63%	59%	56%	-3
Latino/Hispanic	21%	24%	22%	25%	3
White	52%	48%	46%	46%	0
Grade 5					
AA/Black	22%	23%	26%	30%	4
Asian	74%	72%	72%	76%	4
Latino/Hispanic	29%	25%	26%	33%	7
White	53%	55%	50%	59%	9
Grade 6					
AA/Black	17%	22%	21%	27%	6
Asian	73%	75%	74%	79%	3
Latino/Hispanic	23%	28%	27%	33%	6
White	51%	48%	57%	55%	-2
Grade 7					
AA/Black	16%	17%	16%	25%	9
Asian	63%	71%	69%	77%	8
Latino/Hispanic	19%	19%	21%	29%	8
White	45%	57%	46%	63%	17
Grade 8					
AA/Black	14%	22%	16%	25%	9
Asian	67%	74%	72%	78%	6
Latino/Hispanic	20%	26%	19%	26%	7
White	52%	57%	52%	54%	2
Grade 10					
AA/Black	45%	46%	51%	51%	0
Asian	89%	92%	92%	89%	-3
Latino/Hispanic	48%	54%	56%	54%	-2
White	74%	80%	82%	77%	-5

Mathematics % Proficient & Advanced/Above Proficient by other AYP Subgroups

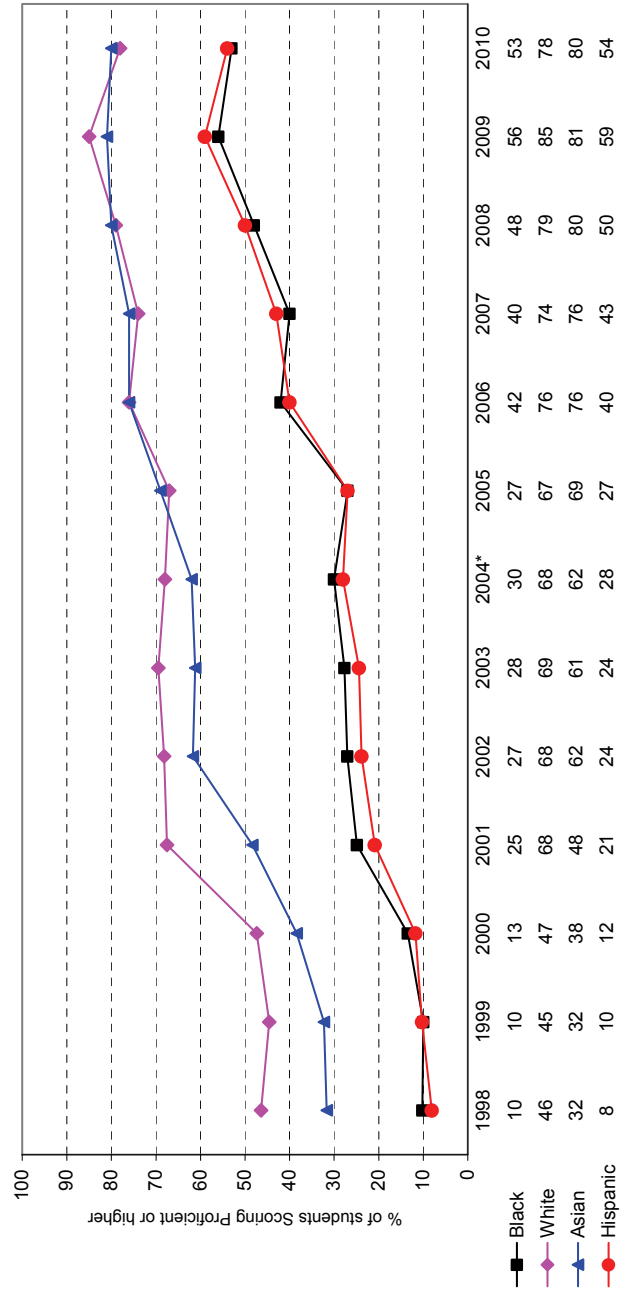
	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 3					
Students w/ Disab	16%	19%	13%	20%	7
LEP/FLEP	35%	33%	29%	44%	15
Low Income	33%	32%	27%	38%	11
Grade 4					
Students w/ Disab	10%	11%	9%	8%	-1
LEP/FLEP	29%	28%	26%	30%	4
Low Income	23%	26%	23%	24%	1
Grade 5					
Students w/ Disab	10%	10%	9%	12%	3
LEP/FLEP	37%	30%	30%	36%	6
Low Income	29%	30%	29%	34%	5
Grade 6					
Students w/ Disab	5%	8%	8%	12%	4
LEP/FLEP	21%	25%	31%	33%	2
Low Income	25%	29%	29%	34%	5
Grade 7					
Students w/ Disab	4%	4%	5%	9%	4
LEP/FLEP	16%	13%	21%	31%	10
Low Income	20%	22%	22%	31%	9
Grade 8					
Students w/ Disab	4%	6%	5%	6%	1
LEP/FLEP	12%	15%	16%	22%	6
Low Income	23%	28%	22%	29%	7
Grade 10					
Students w/ Disab	16%	19%	25%	22%	-3
LEP/FLEP	39%	47%	49%	43%	-6
Low Income	52%	57%	58%	56%	-2

MCAS Grade 10 ELA Results – Percent Needs Improvement or Higher by Race/Ethnicity



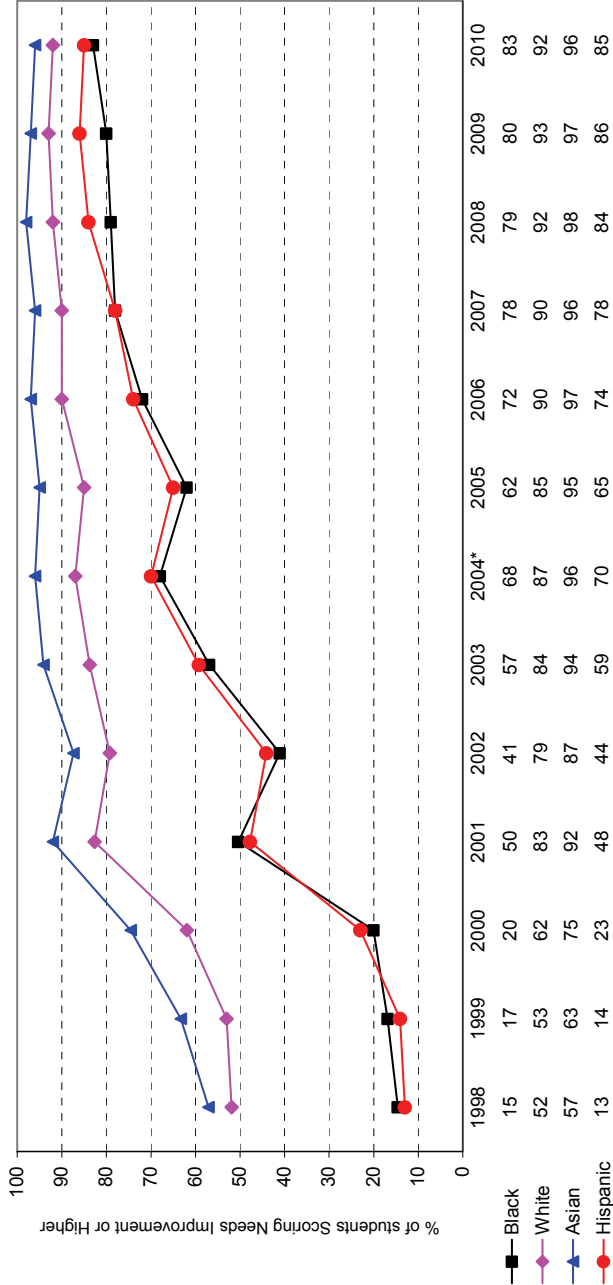
* Beginning with 2004, the race/ethnicity data are based on SIMS file

MCAS Grade 10 ELA Results – Percent Proficient and Advanced by Race/Ethnicity

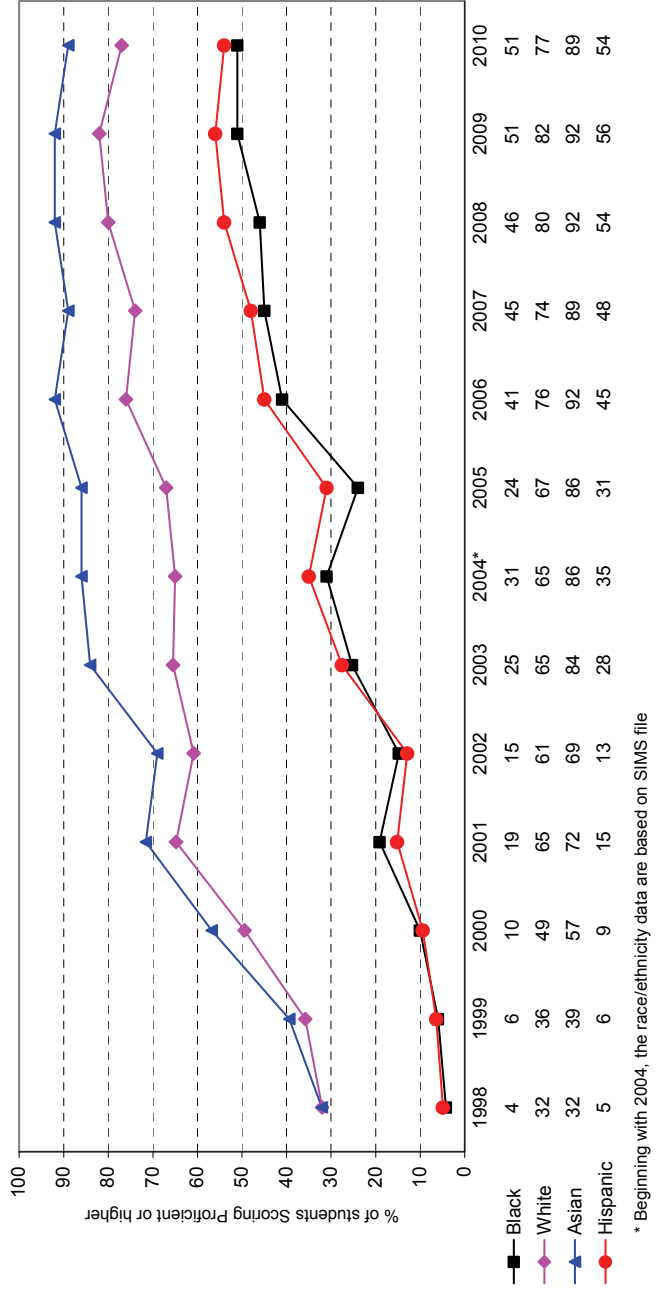


* Beginning with 2004, the race/ethnicity data are based on SIMS file

MCAS Grade 10 Math Results – Percent Needs Improvement or Higher by Race/Ethnicity



MCAS Grade 10 Math Results – Percent Proficient and Advanced by Race/Ethnicity



MCAS Science Results

Gains in Percent Passing, Proficient or Higher

2009 - 2010

Science and Technology / Engineering % Passing (Needs Improvement or higher)

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 5	65%	68%	3	88%	89%	1
Grade 8	49%	53%	4	79%	81%	2
Grade 10*	79%	80%	1	90%	93%	3

3 Exceed or equal State gains

* Grade 10 STE results are reported based on students' best performance on any STE test taken in grade 9 or grade 10; only students continuously enrolled in the same district from fall of grade 9 through spring of grade 10 are included.

Science and Technology / Engineering % Proficient & Advanced

	BPS			State		
	Percentage point Difference			Percentage point Difference		
	2009	2010	2010 - 2009	2009	2010	2010 - 2009
Grade 5	18%	21%	3	49%	53%	4
Grade 8	10%	10%	0	39%	40%	1
Grade 10*	34%	37%	3	61%	65%	4

3 Exceed or equal State gains

* Grade 10 STE results are reported based on students' best performance on any STE test taken in grade 9 or grade 10; only students continuously enrolled in the same district from fall of grade 9 through spring of grade 10 are included.

**Science & Tech/Eng % Proficient & Advanced
by Racial/Ethnic Group**

	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 5					
AA/Black	13%	10%	10%	13%	3
Asian	46%	42%	44%	50%	6
Latino/Hispanic	16%	11%	13%	17%	4
White	45%	39%	38%	41%	3
Grade 8					
AA/Black	4%	5%	6%	5%	-1
Asian	22%	28%	24%	30%	6
Latino/Hispanic	4%	5%	6%	6%	0
White	19%	24%	22%	22%	0
Grade 10*					
AA/Black	N/A	17%	22%	26%	4
Asian	N/A	66%	67%	65%	-2
Latino/Hispanic	N/A	17%	25%	28%	3
White	N/A	55%	63%	60%	-3

* Grade 10 STE results are reported based on students' best performance on any STE test taken in grade 9 or grade 10 only students continuously enrolled in the same district from fall of grade 9 through spring of grade 10 are included

**Science & Tech/Eng % Proficient & Advanced/Above Proficient
by other AYP Subgroups**

	2007	2008	2009	2010	Percentage point Difference 2010 - 2009
Grade 5					
Students w/ Disab	6%	4%	6%	7%	1
LEP/FLEP	21%	14%	14%	16%	2
Low Income	17%	13%	14%	17%	3
Grade 8					
Students w/ Disab	1%	1%	2%	1%	-1
LEP/FLEP	3%	3%	4%	5%	1
Low Income	5%	6%	7%	7%	0
Grade 10*					
Students w/ Disab	N/A	5%	7%	8%	1
LEP/FLEP	N/A	18%	12%	17%	5
Low Income	N/A	23%	27%	29%	2

* Grade 10 STE results are reported based on students' best performance on any STE test taken in grade 9 or grade 10 only students continuously enrolled in the same district from fall of grade 9 through spring of grade 10 are included

Competency Determination Results

Table below displays the cumulative percentages of all students and student subgroups in the class of 2012 who have already met or partially met the state's graduation requirements by performing at the Needs Improvement level or higher in ELA, Mathematics, and Science through the spring 2010 test administration.

Class of 2012: Percentage of Students Scoring Needs Improvement or Higher in ELA, Math, and STE through the Spring 2010 Administration

Subgroup	Class of 2012					Class of 2011*	Class of 2010*
	ELA	Math	ELA and Math	STE	All Three Tests	All Three Tests	All Three Tests
All Students	84%	80%	76%	73%	66%	65%	57%
Race/Ethnicity							
AA/Black	82%	76%	72%	69%	61%	59%	49%
Asian	90%	94%	90%	90%	85%	89%	86%
Latino/Hispanic	82%	78%	72%	69%	61%	60%	50%
White	91%	88%	86%	86%	81%	82%	75%
Other AYP Subgroups							
Students w/ Disab	64%	56%	49%	46%	35%	31%	22%
LEP/FLEP	61%	66%	51%	54%	42%	43%	34%
Low Income	83%	79%	74%	71%	63%	63%	56%

* Class of 2011 results were through the Spring 2009 administration,
Class of 2010 results were through the Spring 2008 Administration.

The following Table presents the number and cumulative percentage of students in the class of 2012 who have already fully met the CD standard by performing at the Proficient level or higher in both ELA and Mathematics and by performing at the Needs Improvement level or higher in STE through the spring 2010 test administration.

Class of 2012: Number and Percentage of Students Scoring Proficient or Higher in ELA and Mathematics and Needs Improvement or Higher in STE through the Spring 2010 Administration.

CD Requirement	Class of 2012		Class of 2011*	Class of 2010*
	Number	Percent	Percent	Percent
Earned CD	1,853	44%	44%	39%
ELA and Mathematics Proficient or Higher	1,898	45%	46%	42%
ELA Proficient or Higher	2,300	54%	58%	52%
Mathematics Proficient or Higher	2,341	55%	56%	52%
STE Needs Improvement or Higher	3,108	73%	73%	61%

* Class of 2011 results were through the Spring 2009 administration,
Class of 2010 results were through the Spring 2008 Administration.

High School Science by Subject, Graduating Class, and Grade

The following table displays the number and percent of students in the classes of 2011 to 2013 who took and passed a discipline-specific high school Science and Technology/Engineering test in grade 9 or grade 10.

**High School Science & Tech/Eng Tests:
% Passing STE in Grades 9 and 10: Classes of 2011 to 2013**

	Class of 2011	Class of 2012	Class of 2013
	% passing STE (n=total test takers)	% passing STE (n=total test takers)	% passing STE (n=total test takers)
Passed STE in Grade 9			
Biology	80% (1017)	82% (1004)	82% (1098)
Chemistry	14% (56)	11% (19)	0% (4)
Physics	58% (2370)	58% (2203)	63% (2213)
Tech/Eng	90% (146)	90% (125)	83% (147)
Passed STE in Grade 10			
Biology	47% (898)	42% (866)	-
Chemistry	23% (206)	30% (166)	-
Physics	82% (436)	86% (447)	-
Tech/Eng	43% (21)	43% (21)	-

- The percentage of students who took and passed Biology as 9th graders increased for the class of 2012 (82%) compared to the class of 2011 (80%), but remained the same for the class of 2013 (82%).
- The percentage of students who passed Physics as 9th graders was notably higher for the class of 2013 (63%) compared to the classes of 2011 and 2012.
- Compared to the class of 2011, the percent of the class of 2012 who took and passed Physics as 10th graders increased from 82% to 86%.
- The percentage of students passing Biology in 10th grade declined for the class of 2012 (42%), compared to the class of 2011 (47%).