

# Spring 2016 MCAS/PARCC Results

For School Committee Meeting 10/5/2016

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#### Notes about the data

- In school year 2015-16, Milton Public Schools students participated in the Science MCAS in grades 5, 8, and 9.
- Grade 9 science MCAS is reported out by the state Department of Elementary and Secondary Education (DESE) a year later when students are in grade 10.
- The MCAS was also given to grade 10 students in ELA and Math, a high school graduation requirement.
- Additionally, in grades 3 to 8, students took the computer-based PARCC tests in ELA and Math.
- It is important to note that the state changed the ELA and Math assessments from MCAS to PARCC in 2014-15 for grades 3-8. Although PARCC remained in 2015-16, it is slightly different than the previous year, in that it was shortened from two sittings to one.
- In 2016-17 and going forward, the state will change the test again to MCAS 2.0, which will be a combination of MCAS, PARCC, and new items.



#### Notes about the data

- As this is designed to be a district level presentation, please note that district MCAS/PARCC results encompass all students assigned to the district, including any out-of-district placements.
- MCAS Warning/Failing category includes MCAS-Alt students regardless of their individual achievement level (Incomplete, Awareness, Emerging, or Progressing).
- However, these MCAS-Alt students will still receive Composite Performance Index (CPI) points.
  - Incomplete = 25 CPI, Awareness = 50 CPI, Emerging = 75 CPI, and Progressing = 100 CPI
  - For certain disabilities, a score of Progressing may result in 75 CPI.
- DESE is not reporting out state results for PARCC this year, due to a majority of students (72% this year vs. 54% last year) taking PARCC over MCAS.



#### **Accountability Determinations**

- All Massachusetts districts and schools with sufficient data are classified into one of five accountability and assistance levels, with the highest performing in Level 1 and lowest performing in Level 5.
- In general, a district is classified into the level of its lowest performing school, unless the district was classified into Level 4 or 5 as a result of action by the Board of Elementary and Secondary Education.
- Massachusetts uses the Progress and Performance Index (PPI) to assess
  the improvement of each district and school toward its own targets. The
  PPI combines information about narrowing proficiency gaps, growth, and
  graduation and dropout rates into a single number.
- For a district or school to be considered to be making progress toward narrowing proficiency gaps, the cumulative PPI for both the "all students" group and "high needs" group must be 75 or higher.



## 2016 MPS Accountability

District Information						
District:	Milton (01890000)					
Region:	Greater Boston					
Title I Status:	Yes					

Accountability I	Information	About the Data					
Accountability a	and Assistance Level						
Level 2	One or more schools in the district classified into Level 2						
This district's de	This district's determination of need for special education technical assistance or intervention						
Meets Requirem	Meets Requirements-At Risk (MRAR)						

This district's progress toward nar	rowing proficiency gaps (Cumula	tive Progress and Perl	formance Index: 1-10	0)
Student Group (Click group to view subgroup	On Target =	75 or higher -	View Detailed 2016 Data	
data)	Less progress		More progress	
All students			66	Did Not Meet Target
High needs			50	Did Not Meet Target
Econ. Disadvantaged				-
ELL and Former ELL			68	Did Not Meet Target
Students w/disabilities			60	Did Not Meet Target
Amer. Ind. or Alaska Nat.				-
<u>Asian</u>			87	Met Target
Afr. Amer./Black			53	Did Not Meet Target
Hispanic/Latino			71	Did Not Meet Target
Multi-race, Non-Hisp./Lat.			<del></del> 85	Met Target
Nat. Haw. or Pacif. Isl.				-
<u>White</u>			86	Met Target

School Accountability Information Abou									
School	School Type	Title I Status	Accountability and Assistance Level						
Collicot	Elementary School	Non-Title I School (NT)	Level 1						
Cunningham School	Elementary School	Non-Title I School (NT)	Level 2						
Glover	Elementary School	Non-Title I School (NT)	Level 2						
Tucker	Elementary School	Title I School (TA)	Level 2						
Charles S Pierce Middle	Middle School	Non-Title I School (NT)	Level 2						
Milton High	High School	Non-Title I School (NT)	Level 2 5						



#### MPS Accountability Over Time

	Prog	ress and Perfor	mance Index (P	PI) Accounta	bility
	2011-12	2012-13	2013-14	2014-15	2015-16
	MCAS	MCAS	MCAS	PARCC	PARCC
District	Level 1	Level 2	Level 2	Level 2	Level 2
					Level 1 (Held
Collicot	Level 1 (87)	Level 1 (90)	Level 1 (93)	Level 1 (95)	Harmless) (92)
Cunningham	Level 1 (86)	Level 2 (86)	Level 2 (81)	Level 2 (79)	Level 2 (80)
Glover	Level 1 (87)	Level 1 (90)	Level 2 (90)	Level 2 (87)	Level 2 (88)
Tucker	Level 1 (64)	Level 1 (68)	Level 2 (62)	Level 2 (66)	Level 2 (59)
Pierce	Level 1 (77)	Level 2 (72)	Level 2 (68)	Level 2 (66)	Level 2 (68)
MHS	Level 1 (60)	Level 1 (72)	Level 2* (79)	Level 1 (78)	Level 2** (80)

<sup>(80) =</sup> percentile ranking indicating the school's overall performance relative to other schools that serve the same or similar grades in the state

<sup>\*</sup>due to MCAS participation rate of less than 95% of AfAm/Black students in Science

<sup>\*\*</sup>due to MCAS participation rate of less than 95% of students with disabilities



## Looking at Overall Performance: Defining CPI

- **CPI:** The Composite Performance Index (CPI) is a 100-point index that assigns 100, 75, 50, 25, or 0 points to each student participating in MCAS and MCAS-Alternate Assessments (MCAS-Alt) based on their performance.
  - The total points assigned to each student are added together and the sum is divided by the total number of students assessed. The result is a number between 0 and 100, which constitutes a district, school or group's CPI for that subject and student group.
- The CPI is a measure of the extent to which students are progressing toward proficiency. A CPI of 100 means that all students are proficient or above.
- CPI measures the aggregate performance of a group of students and takes into account those who are proficient or above as well as those who are not yet proficient.



#### Understanding the Achievement Gap

Example: Take a group of G10 Students in ELA

**Proficiency Goal**: CPI = 100 for

the group

A CPI of 100 would mean that all students in this group taking the G10 ELA MCAS are proficient or higher.

DESE has established a goal of reducing all proficiency gaps in half by 2017 based on 2011 CPI for all students and all subgroups.

**Achievement Gap Goal**: to reduce the CPI gap between subgroups and their counterparts.

Subgroup	Counterpart	Achievement (CPI) Gap
Econ Disadv CPI = 70	Non Econ Disadv CPI = 90	90 – 70 = 20 pts
SWD CPI = 60	Non SWD CPI = 90	90 – 60 = 30 pts
AfAm CPI = 80	White CPI = 95	95 –80 = 15 pts

**Example:** Econ Disadv group increases its CPI to 80 by moving a lot of students from Warning into Needs Improvement and Proficient. But its counterpart, Non Econ Disadv, also increases its CPI to 100 by moving all students from Needs Improvement into Proficient. The gap between this particular subgroup is still 20.

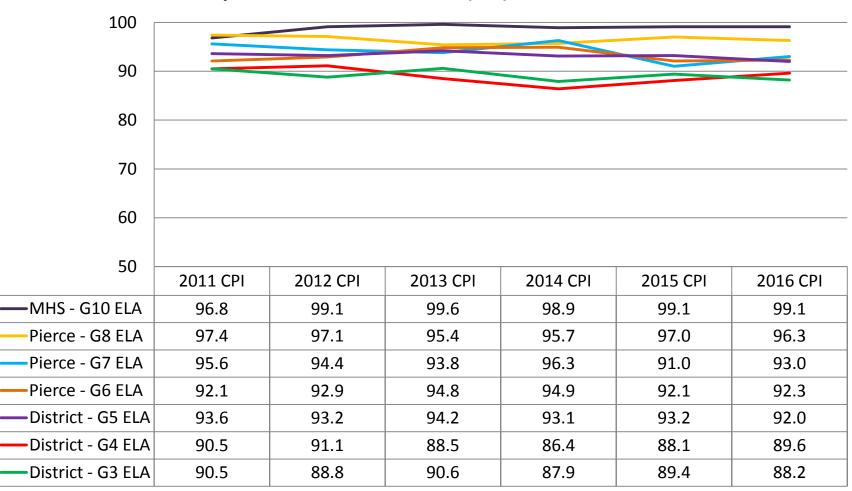
Since we're only looking at the gap, even if a subgroup makes improvement, if that improvement doesn't outpace the performance of the counterpart group, the gap won't necessarily close.

## **ELA TEST RESULTS**



#### How did MPS perform in ELA over time?

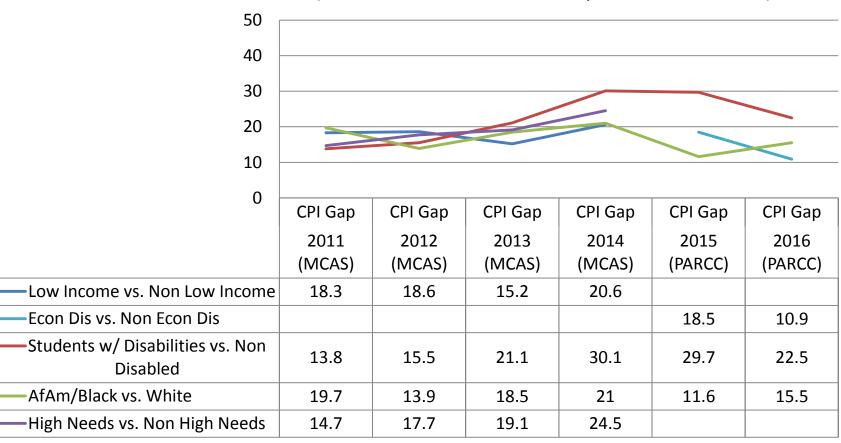
#### **Composite Performance Index (CPI) Over Time: ELA**





#### District G3 ELA Achievement Gap

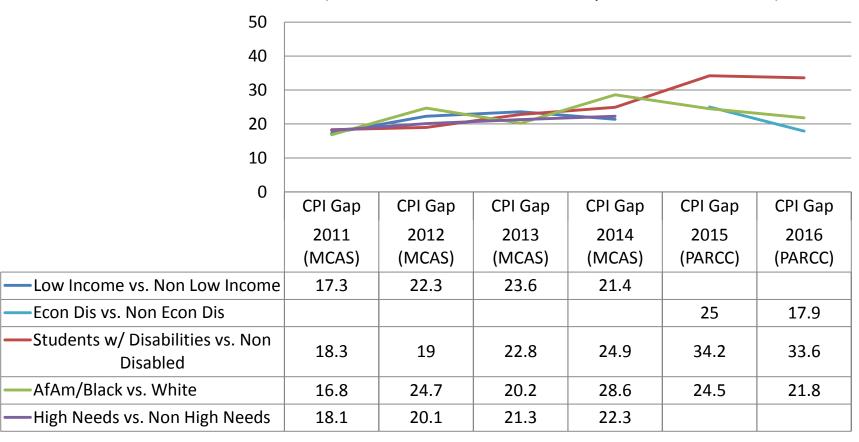
## District G3 ELA: Difference in Performance of Subgroups and Their Counterparts





#### District G4 ELA Achievement Gap

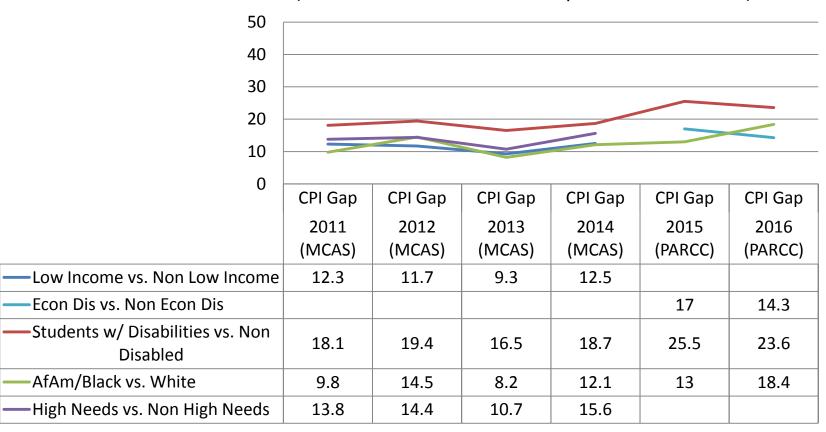
## District G4 ELA: Difference in Performance of Subgroups and Their Counterparts





#### District G5 ELA Achievement Gap

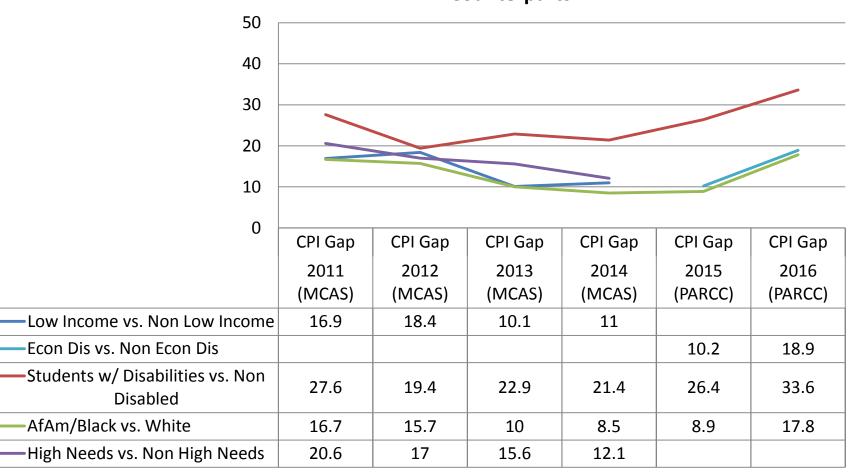
## District G5 ELA: Difference in Performance of Subgroups and Their Counterparts





#### G6 ELA Achievement Gap

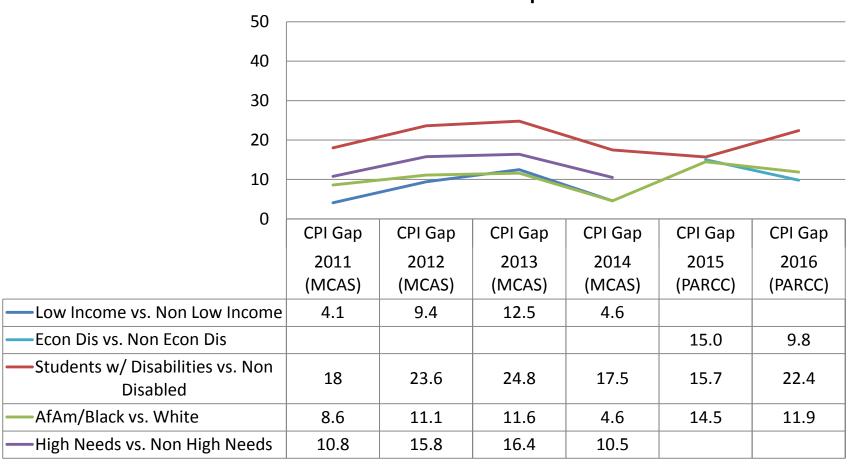
Pierce G6 ELA: Difference in Performance of Subgroups and Their Counterparts





#### G7 ELA Achievement Gap

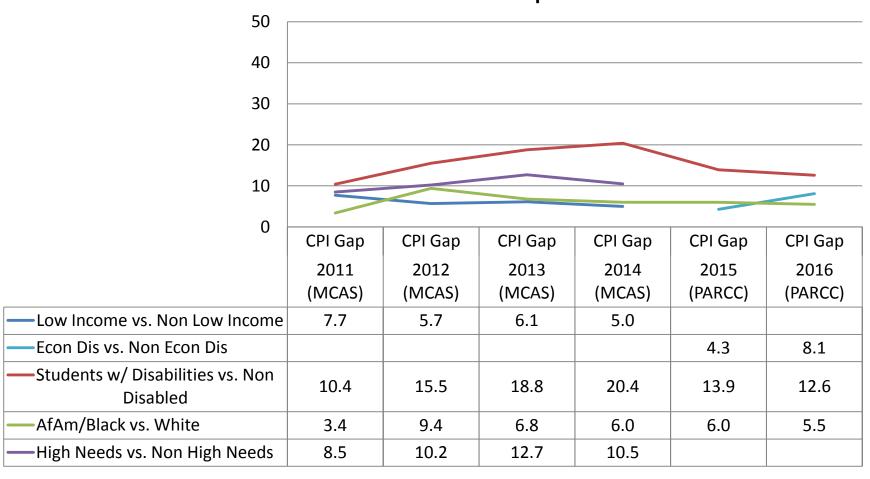
Pierce G7 ELA: Difference in Performance of Subgroups and Their Counterparts





#### G8 ELA Achievement Gap

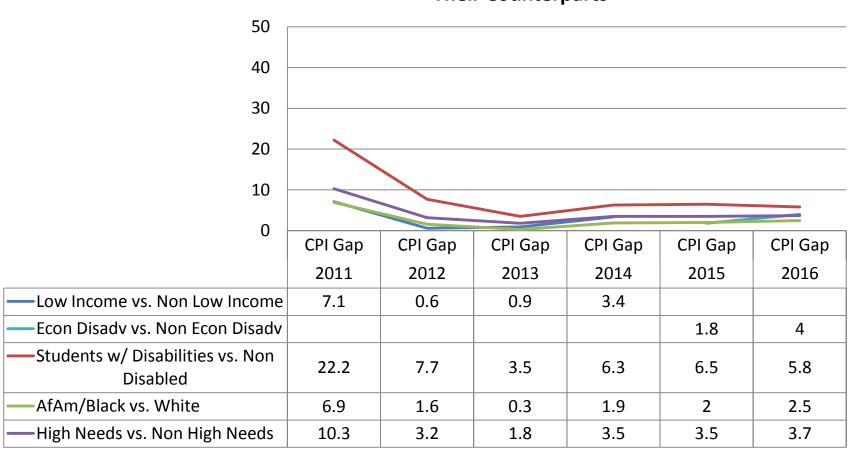
Pierce G8 ELA: Difference in Performance of Subgroups and Their Counterparts





#### G10 ELA Achievement Gap

## Milton High G10 ELA MCAS: Difference in Performance of Subgroups and Their Counterparts

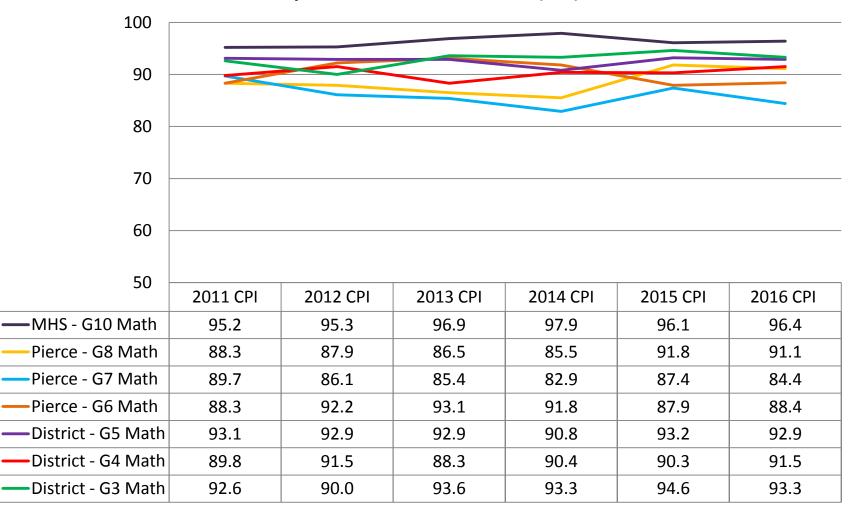


## **MATH TEST RESULTS**



#### How did MPS perform in Math over time?

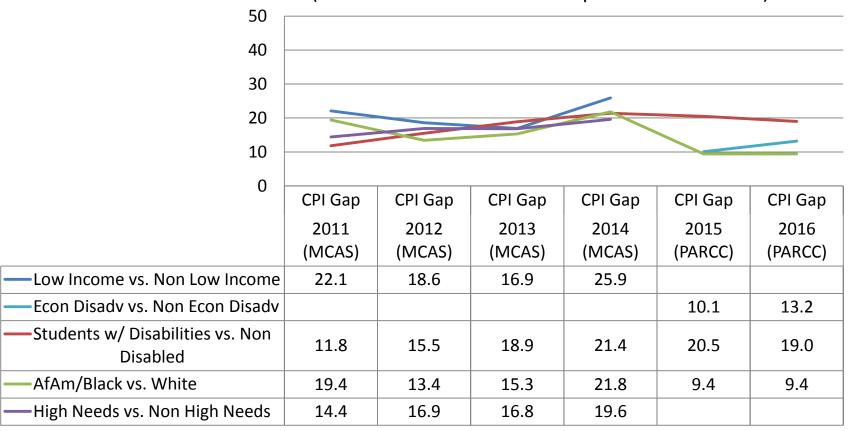
#### **Composite Performance Index (CPI) Over Time: Math**





#### District G3 Math Achievement Gap

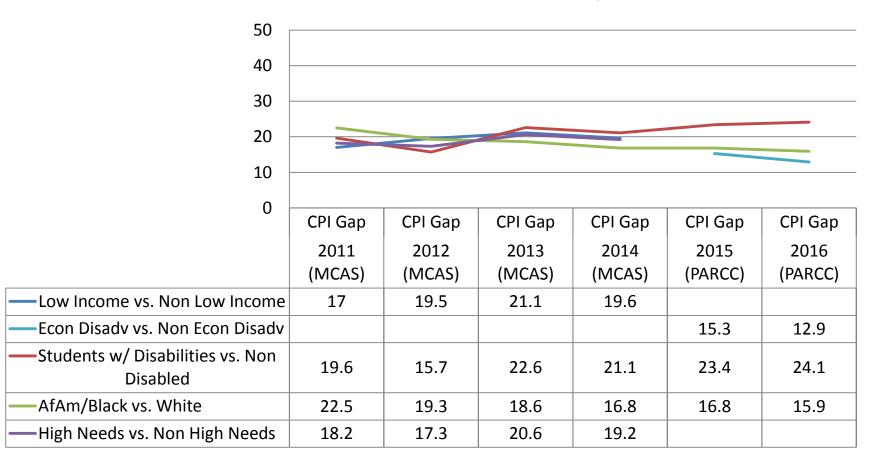
## District G3 Math: Difference in Performance of Subgroups and Their Counterparts





#### District G4 Math Achievement Gap

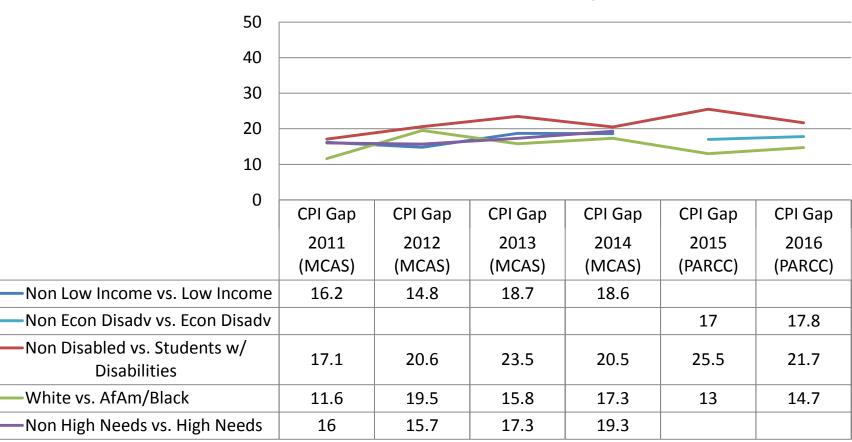
## District G4 Math: Difference in Performance of Subgroups and Their Counterparts





#### District G5 Math Achievement Gap

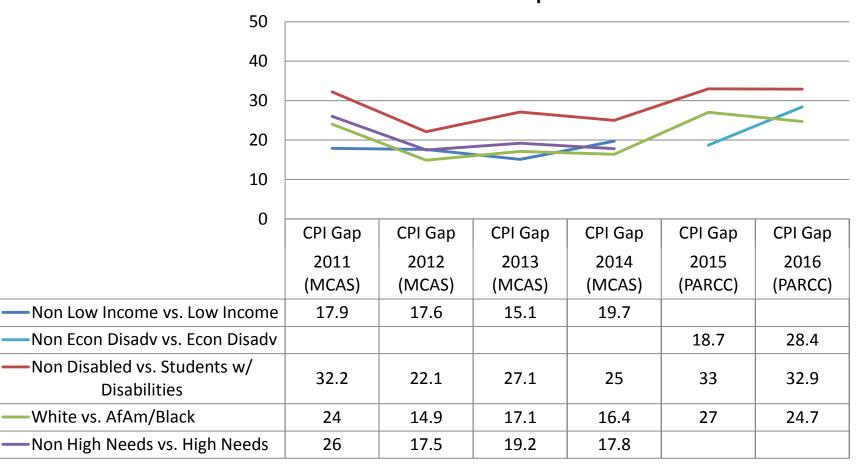
## District G5 Math: Difference in Performance of Subgroups and Their Counterparts





#### G6 Math Achievement Gap

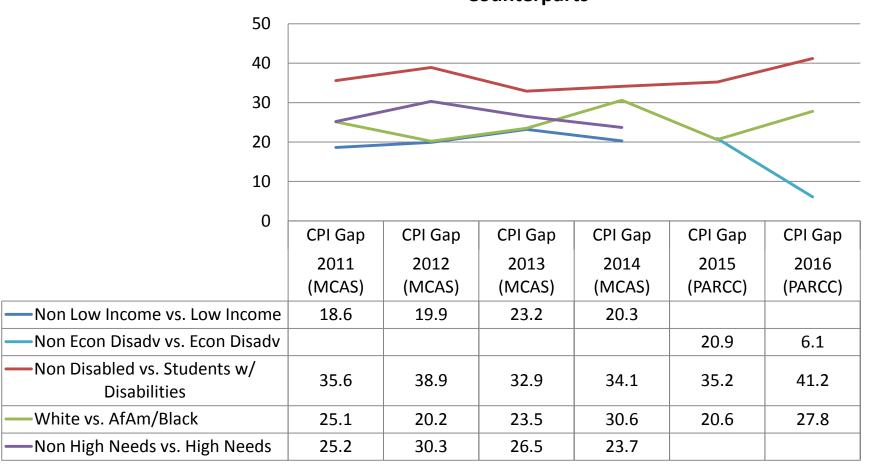
## Pierce G6 Math: Difference in Performance of Subgroups and Their Counterparts





#### G7 Math Achievement Gap

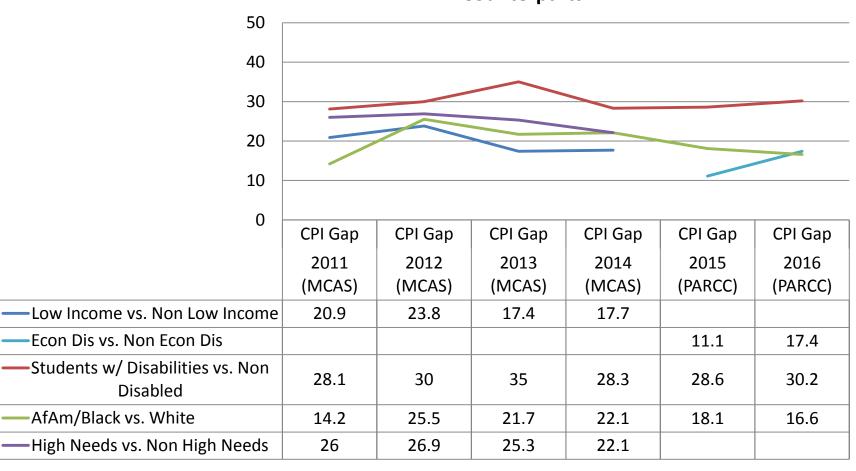
Pierce G7 Math: Difference in Performance of Subgroups and Their Counterparts





#### **G8 Math Achievement Gap**

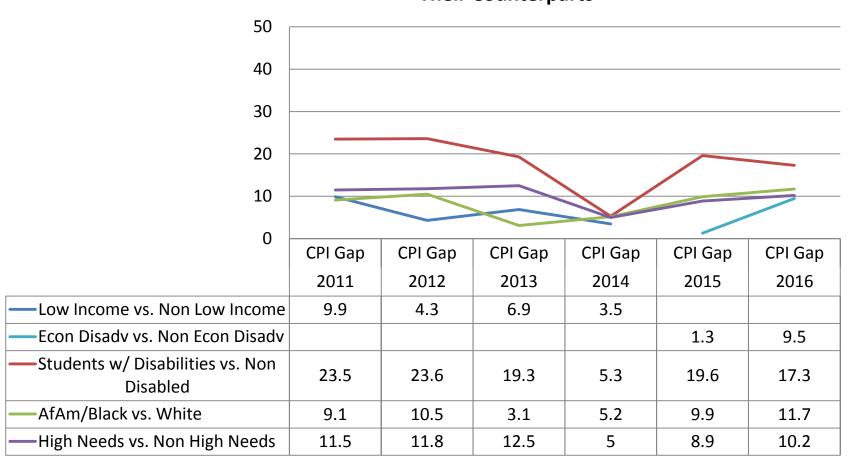
## Pierce G8 Math: Difference in Performance of Subgroups and Their Counterparts





#### G10 Math Achievement Gap

## Milton High G10 Math MCAS: Difference in Performance of Subgroups and Their Counterparts

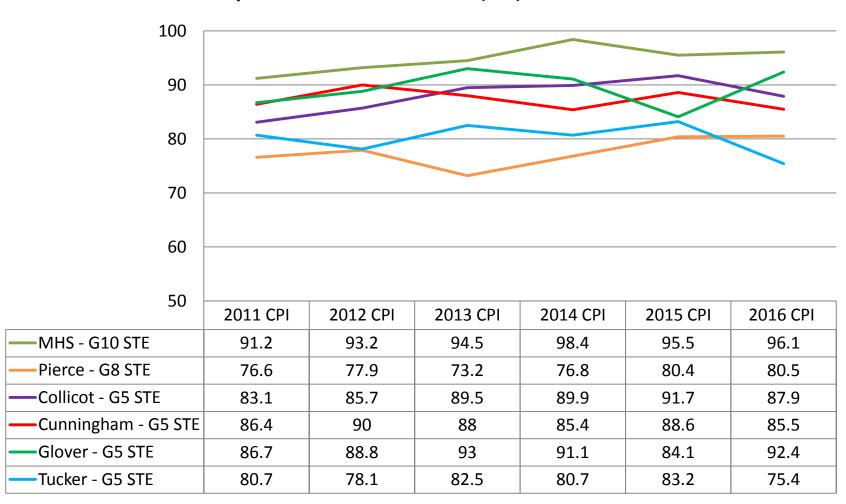


## **SCIENCE TEST RESULTS**



#### How did MPS perform in Science over time?

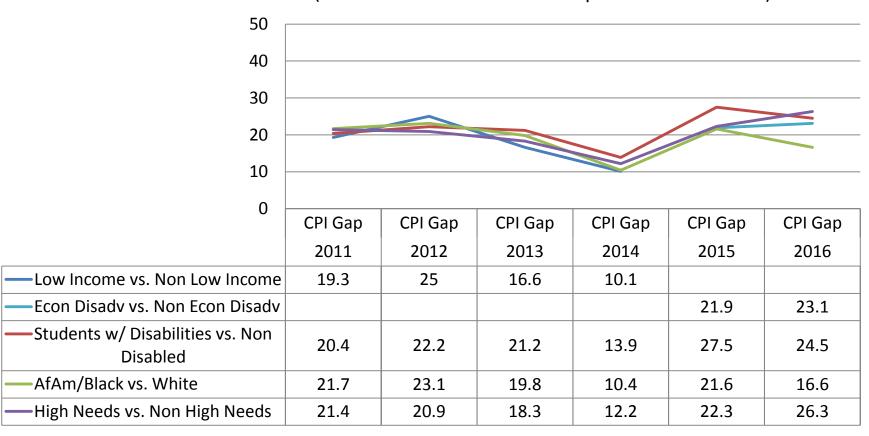
#### **Composite Performance Index (CPI) Across Available MCAS Results**





#### District G5 Science Achievement Gap

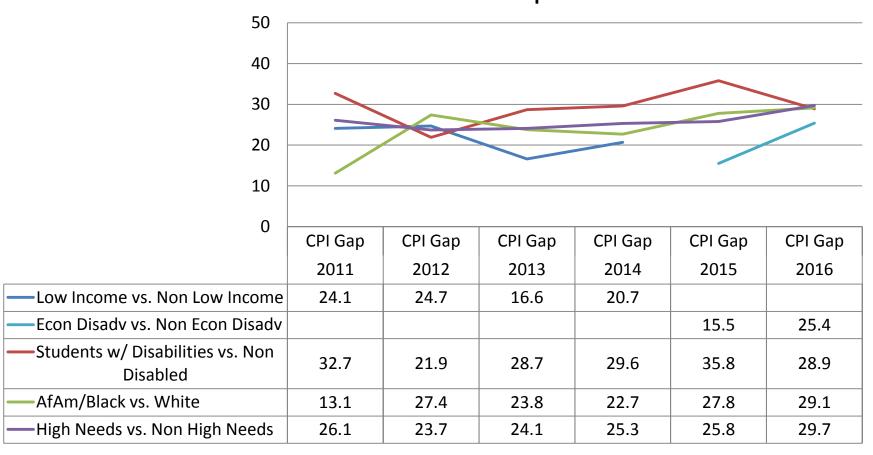
## District G5 STE: Difference in Performance of Subgroups and Their Counterparts





#### **G8** Science Achievement Gap

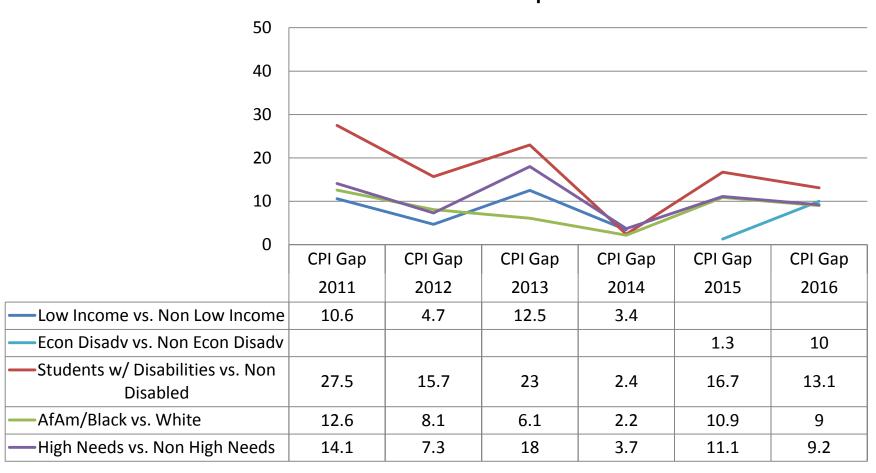
Pierce G8 STE: Difference in Performance of Subgroups and Their Counterparts





#### G10 Science Achievement Gap

## Milton High G10 STE: Difference in Performance of Subgroups and Their Counterparts





#### 2016 District CPI Comparisons

PARCC scores highlighted in blue; otherwise MCAS	Mil- ton	Brain- tree	Brook -line	Can- ton	Hing- ham	Need- ham	New- ton	Sha- ron	Wal- pole	Well- esley	West- wood
G3 – 8 ELA	91.7	95.0	-	92.5	-	-	94.5	95.1	92.7	-	96.0
G3 – 8 Math	90.3	90.7	-	88.2	-	-	91.6	94.4	88.7	-	91.7
G5 Science	86.1	89.6	86.4	82.1	94.7	88.3	86.4	93.1	92.9	89.9	92.0
G8 Science	79.5	85.4	83.6	82.4	84.7	86.9	81.7	84.2	79.6	88.3	78.0
G10 Science	95.7	95.3	95.9	95.9	98.7	96.9	97.6	98.6	99.3	96.6	97.5
G10 ELA	98.8	99.0	98.4	99.4	99.6	99.6	99.3	99.1	93.1	98.8	99.1
G10 Math	96.1	98.1	96.7	94.9	98.0	97.1	98.0	98.4	96.8	97.2	98.3
				Demogra	phic Pro	file					
# Students	4,100	5,700	7,600	3,300	4,300	5,600	12,700	3,500	3,900	5,000	3,200
% White	70%	76%	56%	71%	92%	80%	65%	62%	83%	73%	83%
% High Needs*	23%	36%	32%	24%	17%	20%	32%	22%	24%	22%	23%
Metco?	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No

<sup>\*</sup> High Needs includes the following subgroups: economically disadvantaged, students with disabilities, and English Language Learners. Highlighted columns indicate communities that are demographically similar to Milton.



## % Proficient/Meeting Expectations or Above Over Time

	MCAS (Proficient + Advanced)								PARCC (Level 4+5)							
		2012			2013			2014			2015			201	.6	
	State	District	% Points District Leading State		District	% Points District Leading State	State	District	% Points District Leading State	State	District	Points	State (only avail for MCAS, not PARCC)		Trans. Median SGP**	Change in District % 2015 to 2016
ELA03	61%	71%	10	57%	71%	14	58%	69%	11	54%	68%	14	,	62%	-	-6
ELA04	57%	78%	21	53%	71%	18	54%	65%	11	57%	74%	17		78%	63.0	+4
ELA05	61%	82%	21	65%	87%	22	64%	82%	18	63%	75%	12		77%	51.0	+2
ELA06	66%	81%	15	67%	85%	18	68%	85%	17	60%	70%	10		73%	41.0	+3
ELA07	71%	85%	14	71%	84%	13	72%	91%	19	61%	66%	5		68%	35.0	+2
ELA08	81%	91%	10	78%	86%	8	79%	88%	9	64%	74%	10		75%	47.0	+1
ELA10*	88%	95%	7	91%	97%	6	90%	95%	5	91%	97%	6	92%	95%	46.0	-2
	1	1		ı	I		1	I		1			<u> </u>	I		
MAT03	61%	76%	15	67%	84%	17	69%	83%	14	55%	74%	19		71%	-	-3
MAT04	51%	74%	23	52%	67%	15	52%	72%	20	48%	72%	24		77%	55.0	+5
MAT05	57%	82%	25	61%	82%	21	60%	79%	19	55%	75%	20		73%	49.5	-2
MAT06	60%	82%	22	60%	83%	23	60%	79%	19	53%	65%	12		65%	28.0	0
MAT07	51%	68%	17	52%	67%	15	50%	65%	15	45%	68%	23		59%	54.0	-9
MAT08	52%	73%	21	54%	71%	17	52%	68%	16	53%	76%	23		74%	53.5	-2
MAT10*	78%	87%	9	80%	91%	11	79%	90%	11	79%	90%	11	78%	88%	52.5	-2
	1			1	1		1	ı			1		ı			
STE05*	52%	64%	14	51%	70%	19	53%	63%	10	51%	67%	16	47%	63%	-	-4
STE08*	43%	48%	5	39%	41%	2	42%	48%	5	42%	53%	10	41%	55%	-	+2
<b>STE10*</b>	69%	82%	13	71%	84%	13	71%	93%	22	72%	86%	14	73%	87%	-	+1

<sup>\*</sup> MCAS all years

<sup>\*\*</sup> Expected Student Growth Percentile is between 40 and 60.



## % Meeting Expectations or Above, Elementary

	P/	PARCC (Level 4+5)									
	201	.5	20:	Change in							
ELA	% Level 4+5		% Level 4+5	Trans. Median SGP	School % 2015 to 2016						
CO ELA03	77%	-	62%	-	-15						
CU ELA03	61%	-	52%	-	-9						
GL ELA03	73%	_	77%	-	+4						
TU ELA03	59%	_	56%	-	-3						

CO ELA04	77%	65.0	91%	64.0	+14
CU ELA04	75%	58.0	82%	67.0	+7
GL ELA04	83%	65.0	79%	68.0	-4
TU ELA04	57%	56.0	59%	46.0	+2

CO ELA05	80%	47.0	80%	56.0	0
CU ELA05	76%	61.0	75%	47.0	-1
GL ELA05	75%	51.0	89%	51.0	+14
TU ELA05	71%	79.0	58%	55.0	-13

SCIENCE		2015	2016	Change in School % 2015 to 2016
MCAS	CO STE05	77%	63%	-14
(Proficient +	CU STE05	68%	63%	-5
I.	GL STE05	61%	77%	+16
	TU STE05	67%	46%	-21

	PARCC (Level 4+5)						
	2015		2016		Change in		
MATH	% Level 4+5	Trans. Median SGP	% Level 4+5	Trans. Media n SGP	School % 2015 to 2016		
CO MAT03	81%	_	69%	-	-12		
CU MAT03	66%	-	61%	-	-5		
GL MAT03	78%	-	87%	-	+9		
TU MAT03	68%	-	65%	-	-3		

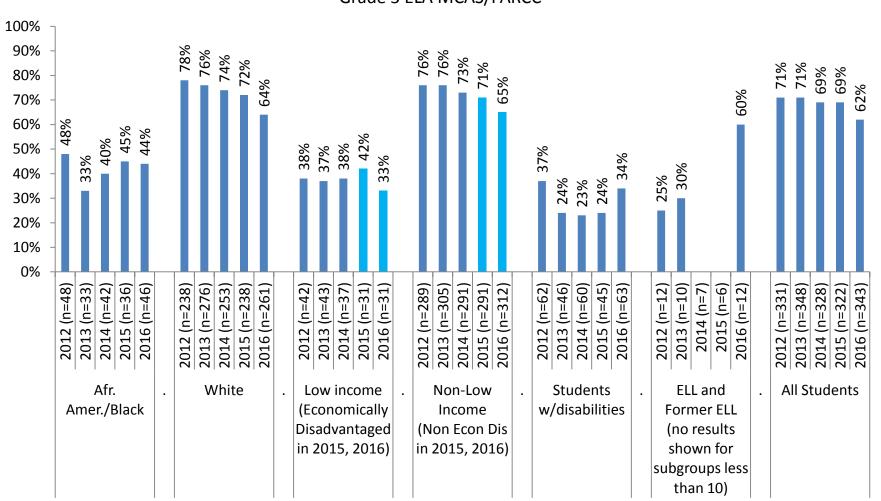
CO MAT04	81%	69.0	80%	55.0	-1
CU MAT04	71%	50.0	85%	74.0	+14
GL MAT04	67%	45.0	78%	53.0	+11
TU MAT04	66%	69.0	66%	40.0	0

CO MAT05	76%	54.0	73%	44.0	-3
CU MAT05	78%	50.0	76%	55.0	-2
GL MAT05	77%	59.0	77%	57.0	0
TU MAT05	70%	55.0	64%	46.0	-6



## G3 ELA % Meeting Expectations or Above, Subgroups

Milton District: Percent of Students in Advanced/Proficient in Grade 3 ELA MCAS/PARCC





#### Conclusion

#### Strengths

- MPS consistently outperforms the state in all tested subject areas.
- The high school has maintained a very high level of performance, achieving a Composite Performance Index (CPI) of close to or above 95 for all its tested subjects (G10 STE, G10 ELA, and G10 Math) for the past five years.
- There are pockets where achievement gaps are decreasing (students with disabilities gap in Science, economically disadvantaged gap in elementary ELA).

#### Challenges

- Though there is no clear pattern in the performance of subgroups at large, it is clear there are still achievement gaps.
- G3 ELA proficiency in the district has declined.



#### District - Next Steps

- Our district has taken up a more robust, data-driven approach to curriculum work at every level.
  - First year all teachers at the elementary and middle schools are provided with internal/state assessments results for every child
  - Culture shift around using data to identify learning needs and strategies to address those needs
- Every year, we refine our common assessments to ensure alignment with new standards and state expectations.
  - Piloting new writing assessments in elementary schools
  - Providing PD on newly adopted Science standards
- Having common planning time at all levels to allow for more focus on curriculum work.
  - First year elementary schools have common planning time with curriculum coordinators/principals
  - Critical investment!