Milton Public Schools School-Based MCAS Presentation: Linking Data to Action

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School Committee Presentation November 6, 2013

Agenda

- How do we look at data?
- Elementary Level
 - What do we "see" in the data?
 - How do the data translate into focus areas?
 - How are we currently addressing these focus areas?
- Pierce Middle School
 - What do we "see" in the data?
 - How do the data translate into focus areas?
 - How are we currently addressing these focus areas?
- Milton High School
 - What do we "see" in the data?
 - How do the data translate into focus areas?
 - How are we currently addressing these focus areas?
- What do we need? Advancement Initiative 2.0

Slicing the Data: What Do We Look At?

- Accountability data sheet
- Results in the aggregate and by subgroup
- School achievement distribution by year
- Detailed school achievement distribution
- School achievement and growth
- School growth distribution
- School results by standards
- School test item analysis
- DART (District Analysis, Review, and Assistance Tools) and MCAS Cube (allows multi-dimensional drill through reports)
- Student results (achievement, by standard, history)
- Cohort achievement history

Slicing the Data: When Do We Look At Data?

- Elementary Level- Grade level meetings every other week; data analysis meetings (requires class coverage); monthly after school faculty meetings
- Middle School Level- Regular meetings with leadership; bi-weekly department meetings to look at data by standard; bi-weekly team meetings may utilize student data as one source of information; monthly after school faculty meetings
- **High School Level-** Weekly leadership meeting with administration and department heads; monthly after school faculty meetings
- All Levels- Principal and curriculum leadership analyze and reflect on data in a number of ways regularly beginning in June for the next school year; *Student Achievement Focus Discussions* (with Central Office).

Milton Public Schools Elementary Level Data Observations, Focus Areas, and Initiatives

Milton Public Schools Elementary **Aggregate** Data Observations

- The district outperformed the state on all achievement levels.
- While Grade 3 and 4 *English Language Arts (ELA)* scores show little change, students in Grade 4 performed above the median student growth percentile (SGP).
- Grade 5 *ELA* and *Math* performance demonstrated the highest achievement and growth.
- Grades 3 and 5 *Math* show an increased percentage of students scoring at the Advanced level.
- Grade 4 *Math* performance levels decreased in 2013.
- Grade 5 performance in *Science and Technology/ Engineering (STE)* has steadily improved since 2010 but still below *ELA* and *Math* achievement levels.

Milton Public Schools Elementary Subgroup Data Observations

- There is a significant gap between the High Needs* subgroup and Non-High Needs students in Grades 3-5 in *ELA* and *Math*.
- The *ELA* High Needs Gap has decreased in Grade 5.
- A gap also exists in *ELA* and *Math* between the African American/Black and Hispanic/Latino subgroups as compared to the Asian and White subgroups.

^{*}High Needs subgroup includes students with disabilities, students identified as low income, and English Language Learners (ELL)

Milton Public Schools Elementary Data Highlights

- •The percentage of Grade 3 students scoring at the Advanced/Proficient levels increased from 75 to 84 in *Math* over the past 4 years.
- •Students in Grades 4 and 5 *ELA* performed above the median growth percentile.
- •The percentage of Grade 5 students scoring at Advanced/Proficient levels increased from 79 to 87 in *ELA*; 71 to 82 in *Math*; 59 to 70 in *STE* over past 4 years.

Milton Public Schools Elementary Focus Areas Rooted in the Data

- Increase targeted instruction/remediation for students below benchmark (K-5) and at Needs Improvement (NI) and Warning (W) levels (grades 3-5); focus on subgroups who are underperforming (Advancement Initiatives- Emphasizing Early Literacy Achievement; Closing the Proficiency Gaps)
- Move students from NI/W to Proficient (Advancement Initiatives- Closing the Proficiency Gaps)
- Move students from Proficient to Advanced
- Grades 3 *ELA* (Advancement Initiatives- Emphasizing Early Literacy Achievement; Closing the Proficiency Gaps)
- Grade 4 *ELA* and *Math* (*Advancement Initiatives- Emphasizing Early Literacy Achievement; Closing the Proficiency Gaps*)
- Science and Technology/Engineering curriculum and instruction (Advancement Initiatives- Advancing Science and STEM)

Milton Public Schools Elementary Initiatives

Emphasizing Early Literacy Achievement

- Reading Specialists in English and French
- Professional Development in Literacy
- Librarian/Media Specialist
- Reading Assessments
- New instructional materials
- Technology funded by MFE (Chromebooks, IPADs, and Kindles to be purchased and utilized to support this and all initiatives.)
- Partnerships with families
- Work Sampling Assessment Pilot (Collicot PreK, Cunningham K)

Milton Public Schools Elementary Initiatives (cont.)

Closing the Proficiency Gaps

- Professional Development in ELA, Math, and Science, and STEM
- Increased curriculum coordinator support
- Common Assessments and data analysis
- Extended day learning opportunities
- Everyday Math Online and Study Island

Advancing Science and STEM

- Science coordinator to support science and STEM
- Implementation of STEM program in grade 2
- New instructional materials

Milton Public Schools Pierce Middle School Data Observations, Focus Areas, and Initiatives

Pierce Middle School **Aggregate** Data Observations

- Achievement in *English Language Arts* (*ELA*) and *Math* in grades 6-8 is consistently above the state, yet remains "flat" for the last three years.
- Achievement in *Science and Technology/ Engineering* (*STE*) remains below performance levels of ELA and Math.
- Median Student Growth Percentiles (SGP) are in the "typical" range for all grades in *ELA* and for grades 6 & 7 in *Math*, yet above the middle in grade 8 *Math*.
- Cohort data reveal improvement from Grades 6 to 7 in *ELA* and a "dip and recovery" in Grades 6, 7, 8 for *Math*.

Pierce Middle School **Subgroup** Data Observations

- There exists an achievement gap for the low income, African American/Black, and students with disabilities subgroups.
- Both the subgroup and counterpart have gained over time in *ELA & Math* (low income), *Math* (African American/Black), and *ELA & Math* (students with disabilities).
- The achievement gap for low income and students with disabilities has narrowed slightly for *ELA*; the gap has not narrowed for any subgroup in *Math*; gap "lacks a pattern" in *STE*.
- The achievement gap is greater for *Math* than for *ELA* for all subgroups and gap is greater for students with disabilities subgroup.

Pierce Middle School Data Highlights

- 85% of ALL students were Proficient or Advanced in *ELA*.
- The median SGP was 62 for the aggregate and for the low income and African American/Black subgroups in 8th Grade *Math*.
- In *ELA* the 6th Grade performed better than 86% of 6th Grades in Massachusetts.
- In *Math* 6th Grade performed better than 89% of 6th Grades in Massachusetts.
- In *Math* 8th Grade performed better than 78% of 8th Grades in Massachusetts.

Pierce Middle School Focus Areas Rooted in the Data

- Implement new science curriculum and increase professional development for science instruction and content (*Advancement Initiatives- Advancing Science and STEM*)
- Increase targeted support for students, especially students in the High Needs subgroup (Advancement Initiatives- Closing the Proficiency Gaps)
- Enhance structure for ongoing assessment (Advancement Initiatives- Closing the Proficiency Gaps)
- Increase achievement in all areas with special attention to students with disabilities subgroup (Advancement Initiatives- Closing the Proficiency Gaps)
- Move students into Advanced categories in *ELA*, *Math*, and *STE* (*Advancement Initiatives Advancing Science and STEM*; *Closing the Proficiency Gap*)

Pierce Middle School Initiatives

Technology Enhancement:

• Purchase Chromebooks, IPADs, and Kindles to be utilized to support all of the following initiatives (Milton Foundation for Education Live Wire Fundraising Initiative)

Assessment:

- Reading assessment of all students at each grade level
- Cumulative common assessments in *Math*, *ELA*, and *STE* (*Advancement Initiatives* Closing the Proficiency Gaps)

Improving Instruction:

- MA DESE Professional Practice Innovation Grant submitted (\$29,040)
- Schooling by Design Framework
- Dedicated department meeting time to focus on supporting students with disabilities

Improving Science Curriculum & Instruction:

- Purchase of science curriculum materials (*Advancement Initiatives- Advancing Science and STEM*)
- Professional development in science curriculum and instruction (Advancement Initiatives- Advancing Science and STEM)
- Part-time Science Coordinator (*Advancement Initiatives- Advancing Science and STEM*)

Pierce Middle School Initiatives (cont'd.) Targeted Support:

- Math Investigations for students scoring low NI and W (analysis conducted/possible reconfiguration)
- After School Math Lab
- Three tiers of targeted reading support for non-IEP struggling readers (*Advancement Initiatives- Emphasizing Early Literacy Achievement; Closing the Proficiency Gaps*)
- Pierce Middle School Academy- Extended Day Targeted Program (*Advancement Initiatives- Closing the Proficiency Gaps*)
- MCAS Support After School (begins in January 2013)

Moving Students Into the Advanced Category:

- Advanced Opportunities for Students- ISSTEM: Pre-AP Math,
 Advanced Computing, & Advanced Explorations in Light
- Creating a Presence for STEM: Robotics (Blue Hills Bank Grant submitted- \$9,900)

Milton Public Schools Milton High School Data Observations, Focus Areas, and Initiatives

Milton High School **Aggregate** Data Observations

- Achievement in *ELA* and *Math* in grade 10 is consistently above the state; the percentage of students in each of the four achievement level categories is continually moving in a positive trend (i.e. moving from proficient to advanced).
- Achievement in *Biology* has consistently remained slightly above the state average.
- Median Student Growth Percentiles (SGP) remain in the upper end of the typical range (40-60) for *ELA* and *Math*.
- Cohort data reveal improvement from Grades 8 to 10 in *ELA*, *Math*, and *Science*.

Milton High School **Subgroup** Data Observations

- There exists an achievement gap for the High Needs and African American/Black subgroups.
- *ELA* scores have steadily increased for low income, students with disabilities, and African American/Black subgroups.
- Math scores have steadily increased for African American/Black students and students with disabilities, while the low income subgroup showed a dip in scores for 2013.
- *Biology* scores have steadily increased for the low income and students with disabilities subgroups and remained stagnant for the African American/Black subgroup from 2012 to 2013.

Milton High School Data Highlights

- 98% of students scored Proficient or Advanced on the Grade 10 *ELA*, boasting a 17% increase from students in Proficient moving to Advanced from 2012 to 2013.
- Grade 10 *Math* and *Biology* MCAS failures were reduced from 4% to 1% from 2012 to 2013.
- Percentage of students scoring Advanced in *Biology* increased from 39% to 52% from 2012 to 2013.
- There were no failures on the Grade 10 *ELA* MCAS exam.
- The median SGP was 51 for both the aggregate and African American/Black subgroup on 10th Grade *Math* exam.

Milton High School Focus Areas Rooted in the Data

- Review and revise science curriculum and instruction (Advancement Initiatives- Advancing Science and STEM)
- Enhance support for students identified as being at-risk of testing below peers (Advancement Initiatives- Closing the Proficiency Gaps)
- Move students in all subgroups from Needs Improvement to Proficient and from Proficient to Advanced (Advancement Initiatives- Closing the Proficiency Gaps)

Milton High School Initiatives

Review and Revise Science Curriculum & Instruction:

- Professional Development focused on student centered learning and Next Generation Science Standards (*Advancement Initiatives Advancing Science and STEM*)
- Part-time Science Coordinator (Advancement Initiatives-Advancing Science and STEM)

Enhance Support for Identified At-Risk Students:

- Individualized reading assessments for at-risk students
- Common unit assessments in *Math*, *ELA*, and *Science* (*Advancement Initiatives- Closing the Proficiency Gaps*)
- 1-1 and small group instruction for identified at-risk students prior to the *Math* and *Science* MCAS exams
- Freshmen Seminar, Bridge Program, MCAS Support, Academic Support, English Support

Milton High School Initiatives (cont'd.)

Shift Students in all Subgroups from Needs Improvement to Proficient and from Proficient to Advanced:

- Developing infrastructure for common planning time for teachers
- Curriculum revision for support classes (SAT Prep, MCAS support)
- Pilot after-school tutoring center
- MCAS Review Sessions after school
- Fall and Spring after-school SAT Prep courses
- My College QuickStart Program
 Individualized SAT practice questions provided by the CollegeBoard
- AP Student conference Spring 2013
- Implementation of the Calculus Project Summer 2014

Technology Enhancement:

- Digital Textbook pilot for 9th grade mathematics (Chromebooks)
- Purchase Chromebooks, IPADs, and Kindles to support all of the above initiatives (Milton Foundation for Education Live Wire Fundraising Initiative)

Milton Public Schools Identified Needs: Advancement Initiatives 2.0

Advancement Initiatives 2.0

- Enhancing Early Literacy Achievement
 - Increase reading specialist support
 - Continue implementation of Reader's/Writer's
 Workshop and provide professional development in K-5
 - Purchase leveled readers for K-5 classrooms
- Closing the Proficiency Gaps
 - Hire a district-wide data specialist
 - Provide professional development in targeted/tiered instruction for subgroups in particular
 - Provide professional development in assessment (including PARCC) and using data to inform instruction
 - Support implementation of targeted support programs (Pierce Academy, Calculus Project, etc.)

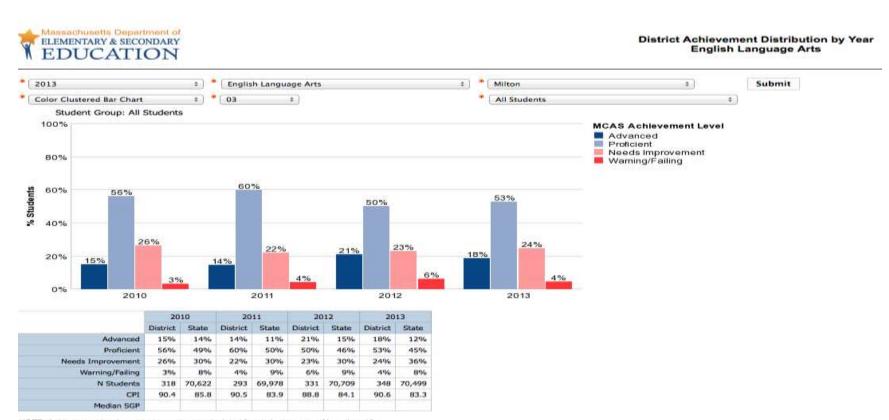
Advancement Initiatives 2.0 (cont'd)

- Advancing Science and STEM
 - Purchase science kits for K-5 and hire part-time materials manager (instructional assistant level)
 - Purchase materials to continue STEM initiative and expand robotics opportunities at Pierce Middle School and Milton High School
 - Upgrade/replace science equipment at Milton High School to keep pace with changing technologies in STEM
 - Expand Pierce Middle School and Milton High School
 Science Department Heads from part-time to full-time
 - Provide professional development (K-12) in science instruction and content

Appendices: By Level 2013 MCAS Data

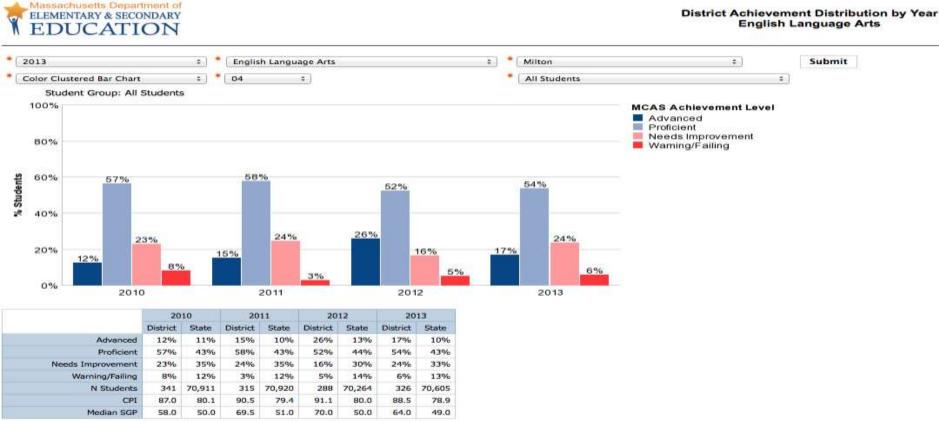
Elementary District Wide 2013 MCAS Data

District Elementary: ELA Grade 3



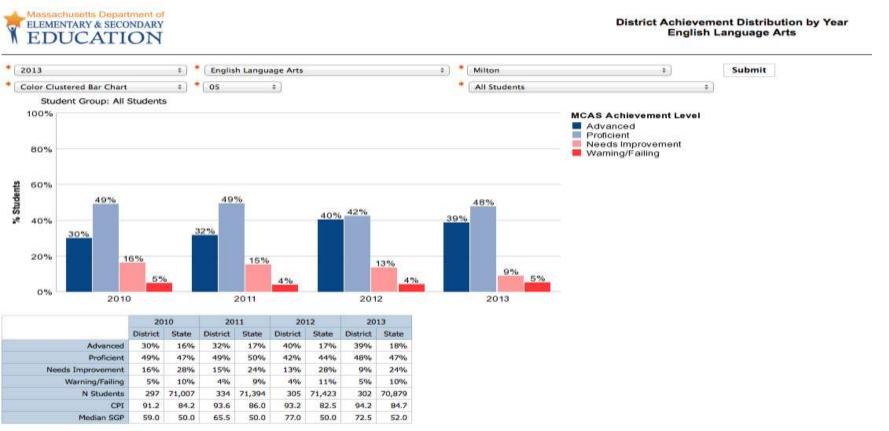
NOTE: Achievement level percentages are not calculated for student groups of less than 10.

District Elementary: ELA Grade 4



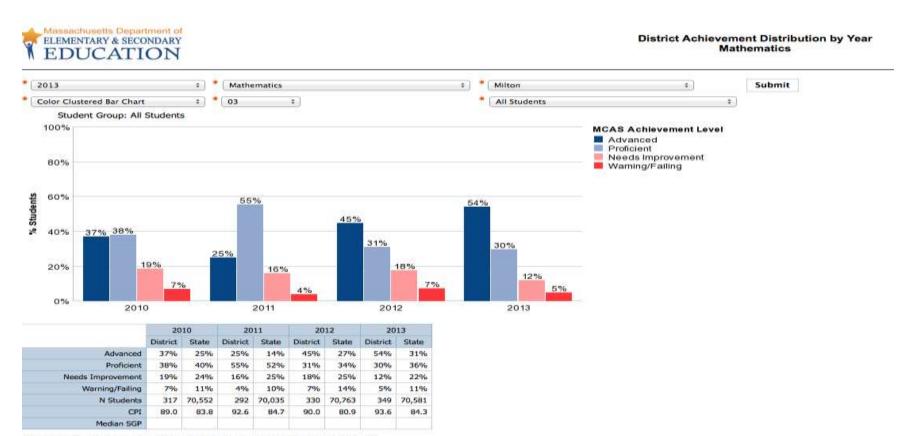
NOTE: Achievement level percentages are not calculated for student groups of less than 10.

District Elementary: ELA Grade 5



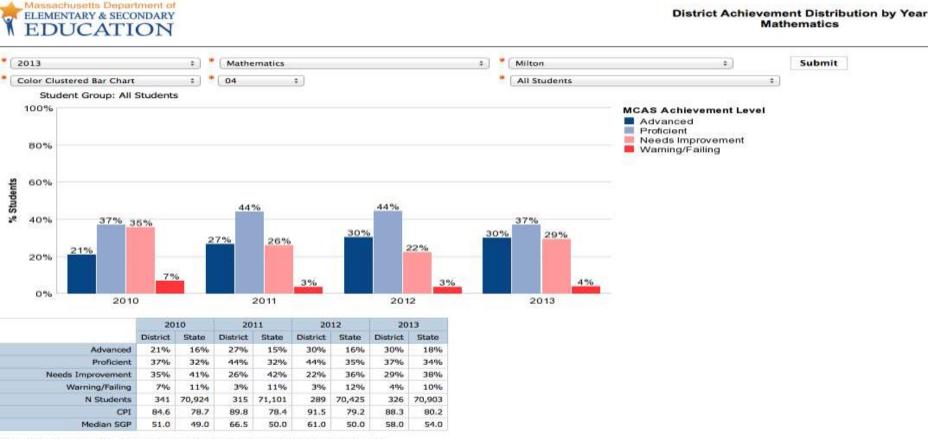
NOTE: Achievement level percentages are not calculated for student groups of less than 10

District Elementary: Math Grade 3



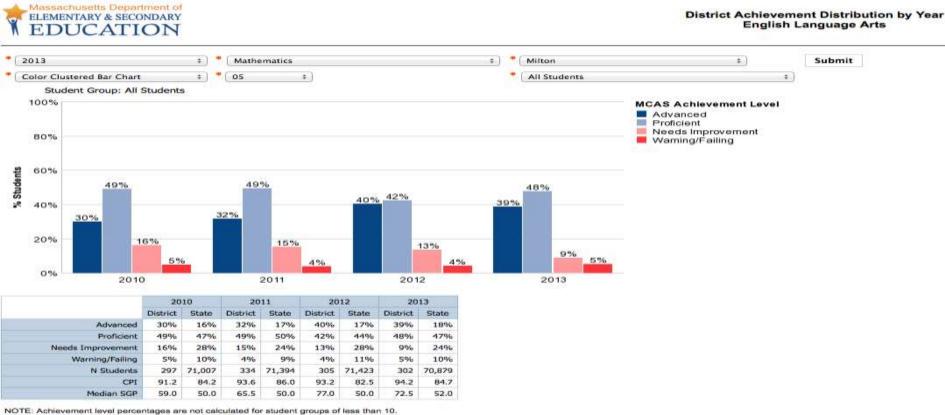
NOTE: Achievement level percentages are not calculated for student groups of less than 10.

District Elementary: Math Grade 4

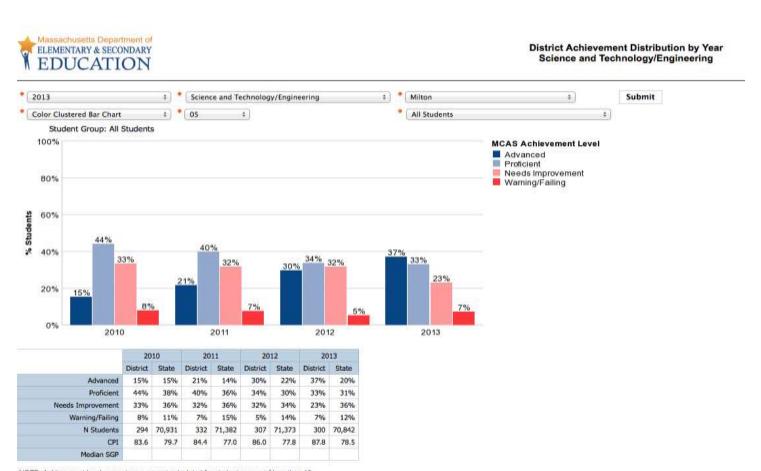


NOTE: Achievement level percentages are not calculated for student groups of less than 10.

District Elementary: Math Grade 5

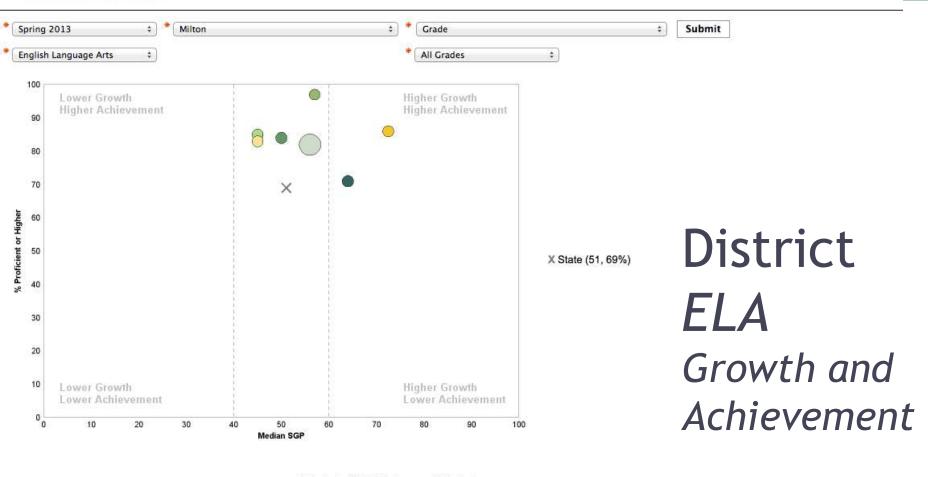


District Elementary: Science Grade 5



NOTE: Achievement level percentages are not calculated for student groups of less than 10.

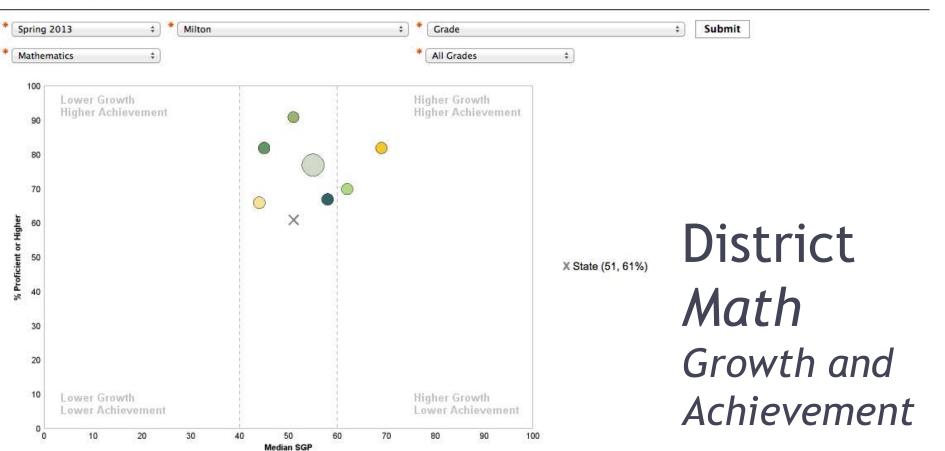




		Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
	All Grades	56	1,659	82	2,112
	Grade 04	64	311	71	326
	Grade 05	72.5	280	86	302
	Grade 06	50	299	84	325
-	Grade 07	45	298	83	312
	Grade 08	45	252	85	268
	Grade 10	57	219	97	231

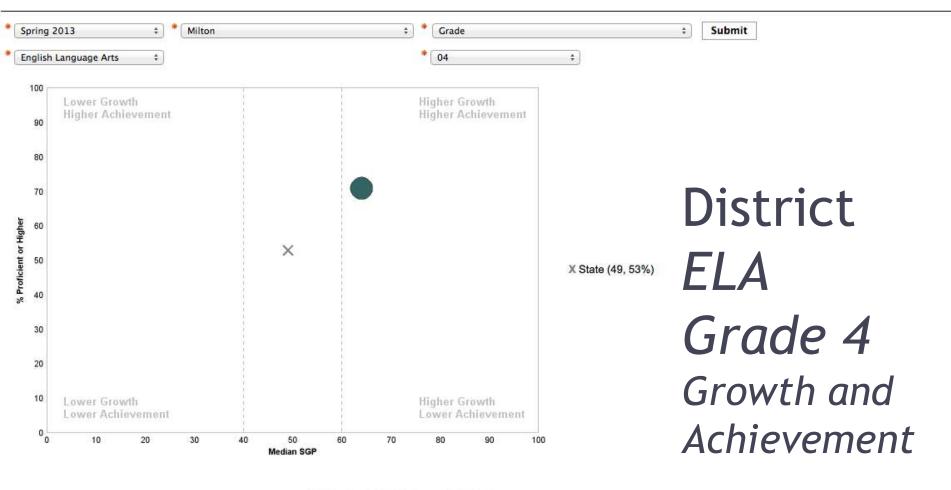






		Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
	All Grades	55	1,664	77	2,112
	Grade 04	58	310	67	326
	Grade 05	69	281	82	302
240	Grade 06	45	298	82	323
	Grade 07	44	301	66	314
	Grade 08	62	254	70	268
	Grade 10	51	220	91	230

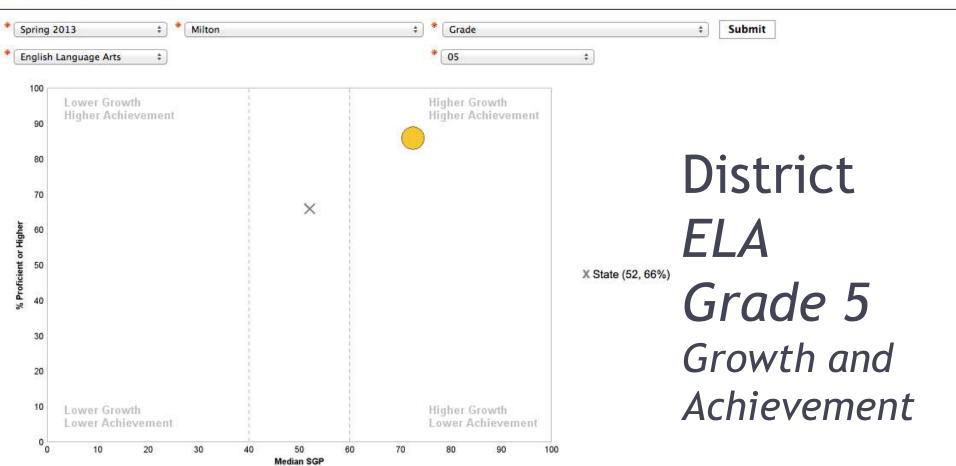




	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04	64	311	71	326



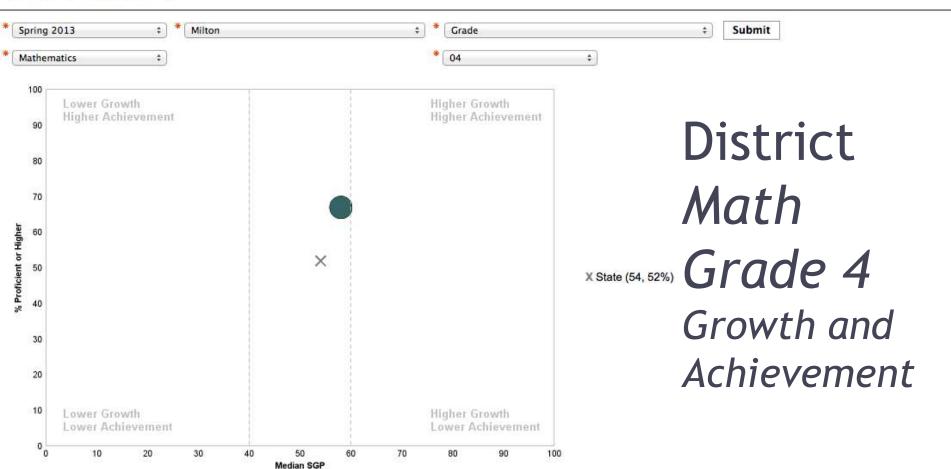
Spring 2013 MCAS District Achievement and Growth English Language Arts by Grade



		Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
1	Grade 05	72.5	280	86	302

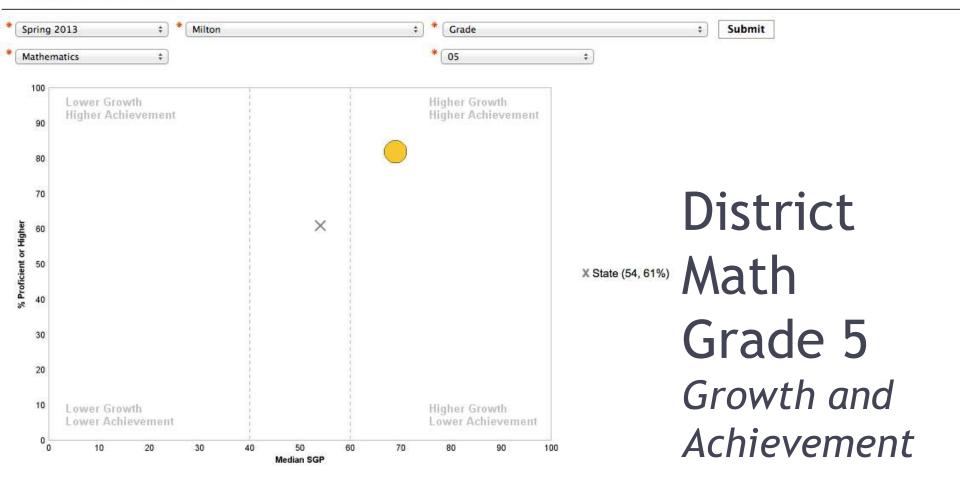


Spring 2013 MCAS District Achievement and Growth Mathematics by Grade



	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04	58	310	67	326





	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 05	69	281	82	302

Low Income Subgroup (Grade 3)

ELA

	2009	2010	2011	2012	2013
CPI Non Low	00 1	00.1	00.0	01.0	00.5
Income	88.1	92.1	93.3	91.2	92.5
CPI Low	5 0.0	00 =		5 0.6	
Income	73.3	80.7	75	72.6	77.3
Difference	14.8	11.4	18.3	18.6	15.2

Math

	2009	2010	2011	2012	2013
CPI Non Low	00	01.0	06	00.4	05.0
Income	90	91.9	96	92.4	95.8
CPI Low	66.0	70.0	70.0	70 ⁰	7 9 0
Income	66.9	72.3	73.9	73.8	78.9
Difference	23.1	19.6	22.1	18.6	16.9

Have gaps in performance between student groups decreased over time? **Yes-Math**

Have all groups of students gained over time? **Yes**What is the magnitude of the gap between groups? **Notable- about the same**

in both ELA and Math How does each group of students currently perform relative to their counterparts in other schools, districts, or states? CPI for this subgroup is

CPI for this subgroup is above the state subgroup.

African American/Black Subgroup (Grade 3)

ELA

	2009	2010	2011	2012	2013
CPI White	89.7	92.8	94.1	92	92.7
CPI African Am./Black	71.5	80.8	74.4	78.1	74.2
Difference	18.2	12	19.7	13.9	18.5

Math

	2009	2010	2011	2012	2013
CPI White	91.6	93.9	95.5	93.1	95.3
CPI African Am./Black	65.4	68.1	76.1	79.7	80
Difference	26.2	25.8	19.4	13.4	15.3

Have gaps in performance between student groups decreased over time?

ELA- No Math- Yes, notably *Have all groups of students gained over time?*

Yes- both ELA and MathWhat is the magnitude of the gap between groups?

Notable- bigger in ELA How does each group of students currently perform relative to their counterparts in other schools, districts, or states?

CPI for this subgroup is above the state subgroup.

Special Education Subgroup (Grade 3)

ELA

	2009	2010	2011	2012	2013
CPI Non Spec	90.9	00.4	00	01.5	00.4
Education	89.8	93.4	93	91.7	93.4
CPI Spec	60.4	00.7	70.2	76.2	72.3
Education	69.4	80.7	79.2	76.2	
Difference	20.4	12. 7	13.8	15.5	21.1

Math

	2009	2010	2011	2012	2013
CPI Non Spec	90.2	92.9	94.8	92.9	96.1
Education					
CPI Spec	=0	76	0.0	,	77.2
Education	72		83	77.4	
Difference	18.2	16.9	11.8	15.5	18.9

Have gaps in performance between student groups decreased over time?

No

Have all groups of students gained over time?

Yes

What is the magnitude of the gap between groups?

Notable in both ELA and Math How does each group of students currently perform relative to their counterparts in other schools, districts, or states?

CPI for this subgroup is above the state subgroup.

Low Income Subgroup (Grade 4)

ELA

	2009	2010	2011	2012	2013
CPI Non Low	88.8	00.4	92.9	04.4	91.2
Income	00.0	90.4	92.9	94.4	91.2
CPI Low	66.1	5 0 5	 6	5 0.1	c - c
Income	66.1	70.7	75.6 	72.1	67.6
Difference	22. 7	19.7	17.3	22.3	23.6

Math

	2009	2010	2011	2012	2013
CPI Non Low	Q-7	88	00	04.5	00.7
Income	0/	00	92	94.5	90.7
CPI Low	64.4	68.1	7 -	7 -	69.6
Income	64.4	00.1	75	75	09.0
Difference	22.6	19.9	17	19.5	21.1

Have gaps in performance between student groups decreased over time? **No-ELA; Slightly- Math**

Have all groups of students gained over time? **Yes**

What is the magnitude of the gap between groups? **Notable**

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? **CPI for this subgroup is slightly above the state subgroup.**

African American/Black Subgroup (Grade 4)

ELA

	2009	2010	2011	2012	2013
CPI White	90.6	91.8	94.4	95.6	92.96
CPI African Am./Black	64.2	70.2	77.6	70.9	72.4
Difference	26.4	21.6	16.8	24. 7	20.2

Math

	2009	2010	2011	2012	2013
CPI White	89.9	87.9	93.9	94.9	92.1
CPI African Am./Black	58.6	70.2	71.4	75.6	73.5
Difference	31.3	17.7	22.5	19.3	18.6

Have gaps in performance between student groups decreased over time? **Yes- most notably in Math**

Have all groups of students gained over time? **Yes**

What is the magnitude of the gap between groups?

Notable

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? **CPI for this subgroup is above the state subgroup.**

Special Education Subgroup (Grade 4)

ELA

	2009	2010	2011	2012	2013
CPI Non Spec	00.4	00.0	0.4.	0.4	
Education	92.4	92.8	94.7	94	92.4
CPI Spec	60.6	62.7	76.4	75	() (
Education	60.6	62.7	76.4	75	69.6
Difference	31.8	30.1	18.3	19	22.8

Math

	2009	2010	2011	2012	2013
CPI Non Spec	00.1	88.8	04.0	0.4	00.1
Education	90.1	00.0	94.2	94	92.1
CPI Spec	60.8	66.0	746	5 0 0	60.5
Education	00.8	66.9	74.6	78.3	69.5
Difference	29.3	21.9	19.6	15. 7	22.6

Have gaps in performance between student groups decreased over time? **Yes** Have all groups of students gained

over time? No- Non spec education; Yes- all other

groups

What is the magnitude of the gap between groups?

Notable

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? **CPI for this subgroup is well above the**

state subgroup- 14.4 for ELA.

Low Income Subgroup (Grade 5)

ELA

	2009	2010	2011	2012	2013
CPI Non Low	04.0	00.6	05.8	04.9	05.0
Income	94.2	93.6	95.8	94.8	95.8
CPI Low	0-	70.0	90 F	00.1	06 =
Income	85	79.2	83.5	83.1	86.5
Difference	9.2	14.4	12.3	11.7	9.3

Math

	2009	2010	2011	2012	2013
CPI Non Low Income	90.8	88.7	95.9	95	96.1
CPI Low Income	67.9	77.1	79.7	80.2	77.4
Difference	22.9	11.6	16.2	14.8	18.7
Science	2009	2010	2011	2012	2013
CPI Non Low Income	88.8	86.7	87.8	89.5	90.6
CPI Low Income	71.3	67.7	68.5	64.5	74
Difference	17.5	19	19.3	25	16.6

Have gaps in performance between student groups decreased over time? **Slightly in Math**

Have all groups of students gained over time? **Yes**

What is the magnitude of the gap between groups? **Double in Math as compared to ELA**

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? CPI for this subgroup is above the state subgroup.

African American/Black Subgroup (Grade 5)

ELA

	2009	2010	2011	2012	2013
CPI White	95.6	93.8	95.6	95.6	96.2
CPI African Am./Black	84	78.2	85.8	81.1	88
Difference	11.6	15.6	9.8	14.5	8.2

Have gaps in performance between student groups decreased over time? **Yes- particularly Math**

Have all groups of students gained over time? No in math; Yes all others

Math

	2009	2010	2011	2012	2013
CPI White	93.2	90.2	95.4	96.2	95.1
CPI African Am./Black	67	72.2	83.8	76.7	79.3
Difference	26.2	18	11.6	19.5	15.8
Science					
	2009	2010	2011	2012	2013
CPI White	91.3	88.1	88.6	90.3	91.6
CPI African Am./Black	67.9	65.7	66.9	67.2	71.8
Difference	23.4	22.4	21.7	23.1	19.8

What is the magnitude of the gap between groups? **Smallest in ELA**

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? **CPI for this subgroup is well above the state subgroup.**

Special Education Subgroup (Grade 5)

ELA

	2009	2010	2011	2012	2013
CPI Non Spec Education	96	97.6	96.7	97.2	96
CPI Spec Education	80	62.5	78.6	77.8	79.5
Difference	16	35.1	18.1	19.4	16.5

Math

	2009	2010	2011	2012	2013
CPI Non Spec Education	92.8	93.9	96	97.2	95.4
CPI Spec Education	67.3	54.6	78.9	76.6	71.9
Difference	25.5	39.3	17.1	20.6	23.5

Science

	2009	2010	2011	2012	2013
CPI Non Spec	00 =	0.0	0= 0	006	
Education	89.7	89	87.9	90.6	90
CPI Spec	73.6		c - -	0.4 60.0	60.0
Education		59	67.5	68.4	68.8
Difference	16.1	30	20.4	22.2	21.2

Have gaps in performance between student groups decreased over time? **No- ELA and Science; Yes-Math**

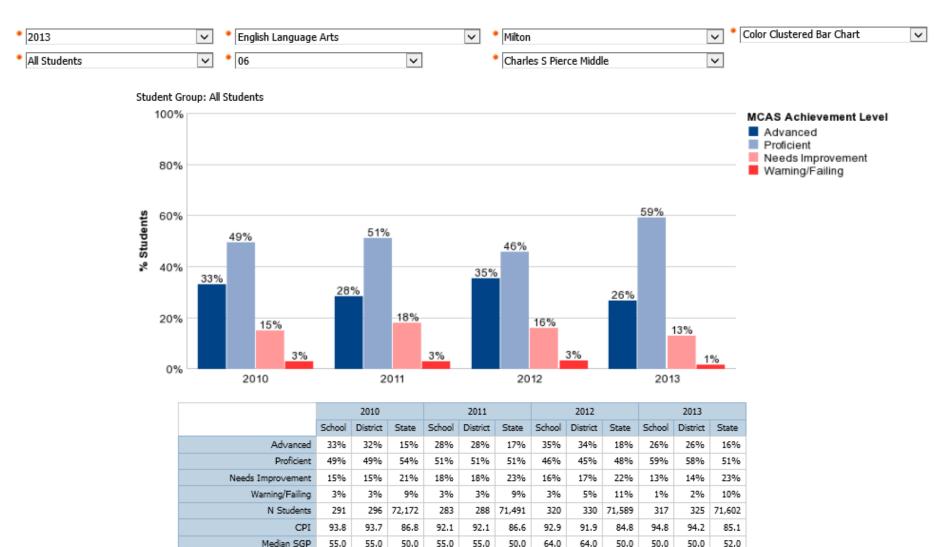
Have all groups of students gained over time? **No-ELA and Science**; **Yes-Math**

What is the magnitude of the gap between groups? **Notable**

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? CPI for this subgroup is above the state subgroup.

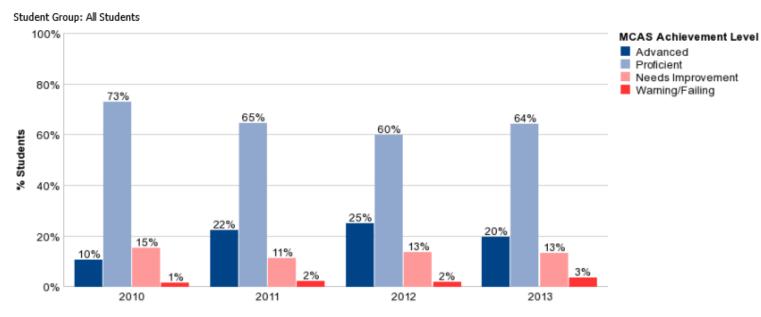
Pierce Middle School 2013 MCAS Data

Pierce Middle School: ELA Grade 6



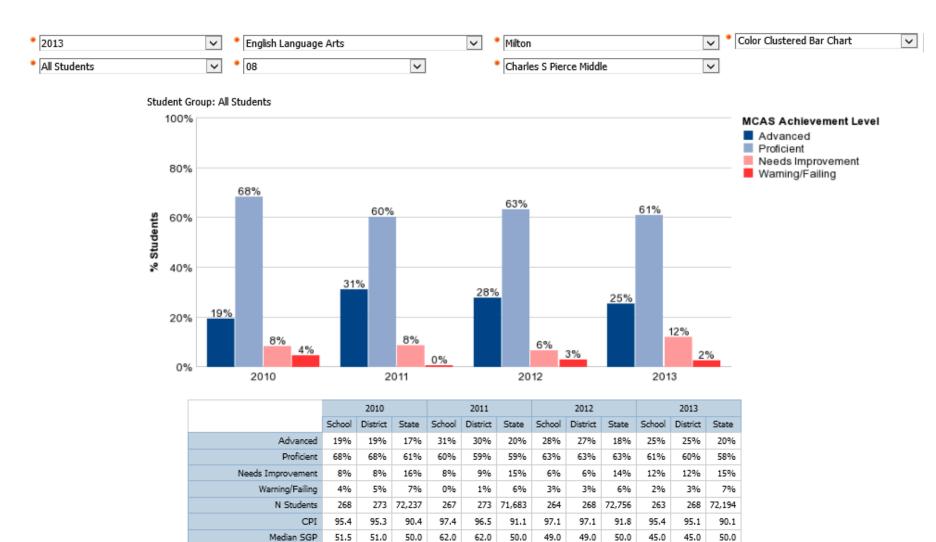
Pierce Middle School: ELA Grade 7



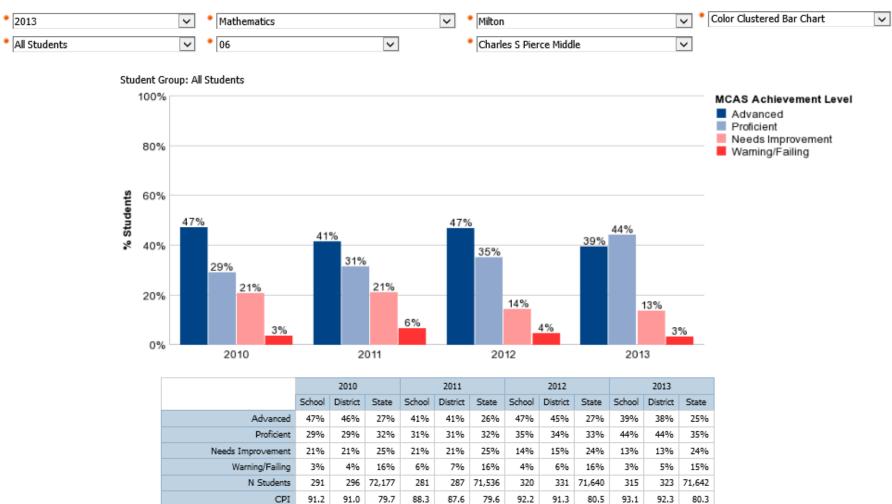


		2010			2011			2012			2013	
	School	District	State									
Advanced	10%	10%	11%	22%	22%	14%	25%	25%	15%	20%	19%	12%
Proficient	73%	73%	61%	65%	65%	59%	60%	60%	56%	64%	63%	59%
Needs Improvement	15%	15%	21%	11%	11%	21%	13%	14%	21%	13%	13%	22%
Warning/Failing	1%	2%	7%	2%	3%	6%	2%	2%	7%	3%	4%	7%
N Students	278	283	71,350	277	282	72,260	252	259	71,749	307	312	71,699
CPI	93.9	93.6	88.6	95.6	95.7	89.5	94.4	94.4	88.1	93.8	93.4	88.4
Median SGP	50.0	50.0	50.0	50.0	50.0	50.0	57.0	57.0	50.0	45.0	45.0	48.0

Pierce Middle School: ELA Grade 8



Pierce Middle School: Math Grade 6



NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median SGP

51.5

51.0

50.0

59.0

59.0

50.0

59.0

58.0

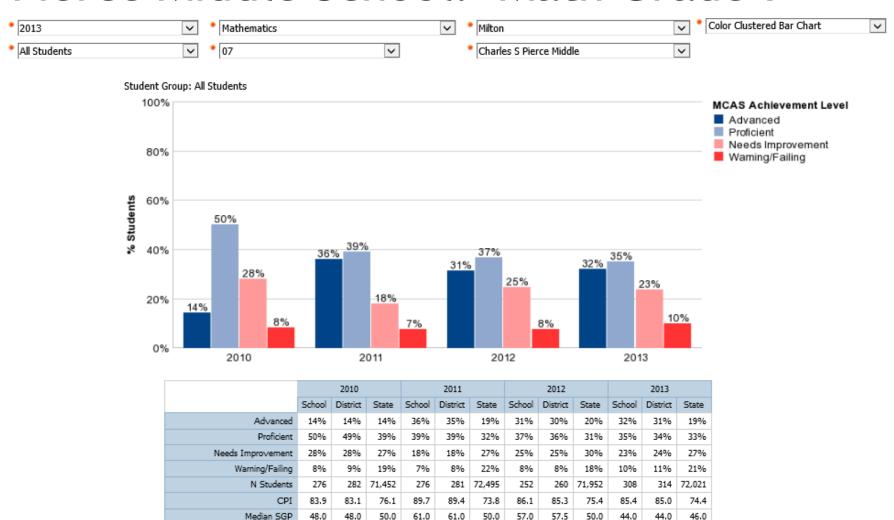
50.0

45.0

45.0

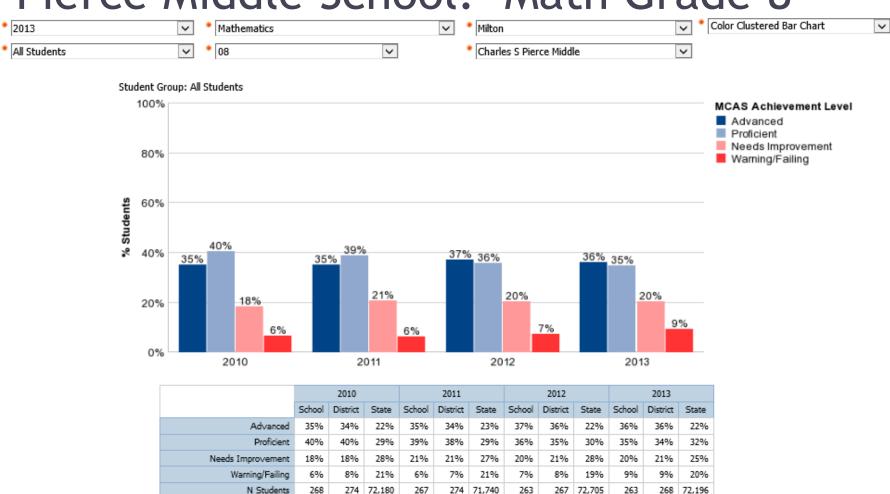
50.0

Pierce Middle School: Math Grade 7



NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Pierce Middle School: Math Grade 8



74.2

50.0

87.9

47.0

87.7

47.0

75.5

50.0

86.5

62.0

85.9

62.0

76.0

50.0

Median SGP

89.7

67.0

89.0

67.0

74.8

51.0

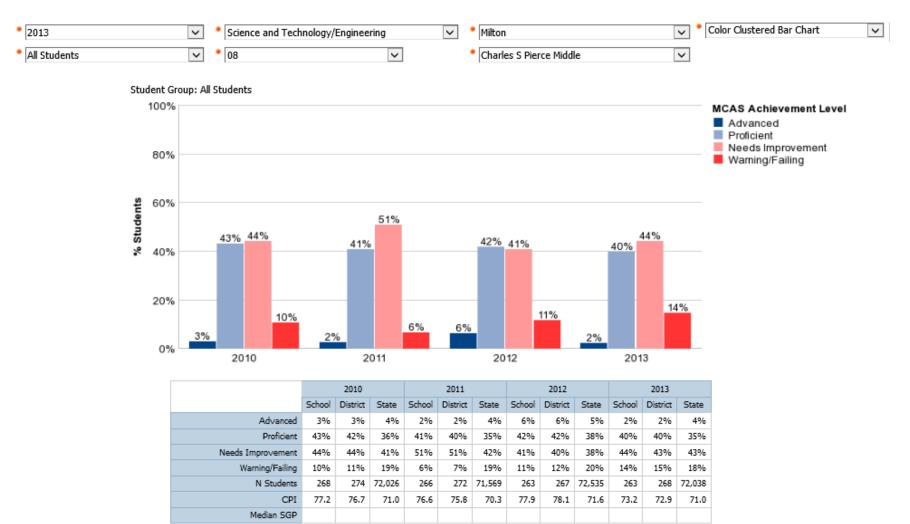
88.3

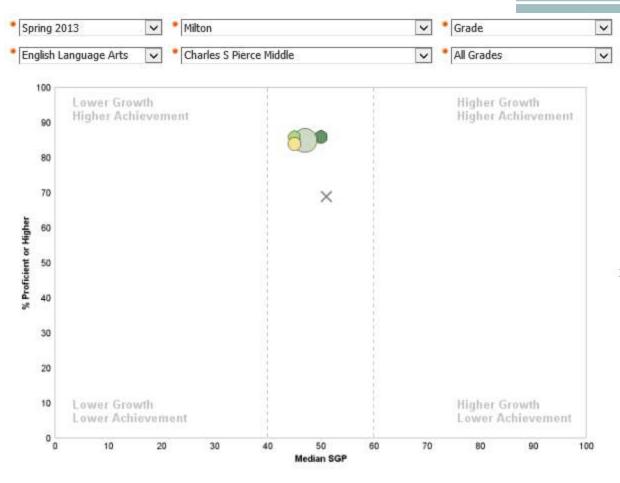
67.0

87.0

66.5

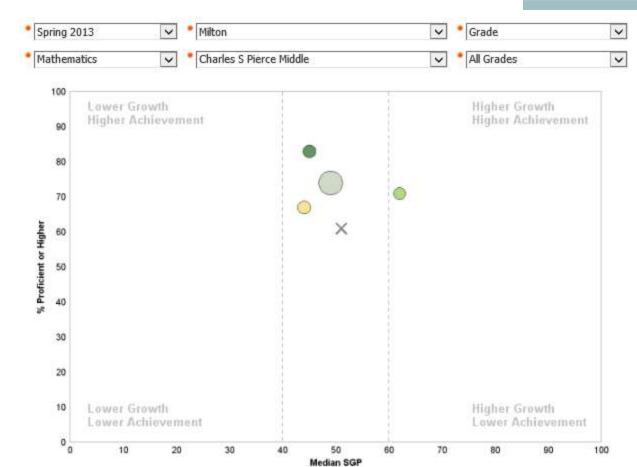
Pierce Middle School- STE Grade 8





Pierce Middle SchoolELA Growth and Achievement

	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
All Grades	47	847	85	887
Grade 06	50	297	86	317
Grade 07	45	298	84	307
Grade 08	45	252	86	263



Pierce Middle SchoolMath Growth and Achievement

	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
All Grad	des 49	847	74	886
Grade 0	08 45	295	83	315
Grade 0	07 44	299	67	308
Grade 0	18 62	253	71	263

Pierce Middle School MCAS Cohort Achievement History

ELA	20	111	2012		2013	
Students who took all tests in district.	Grad	e 6	Grad	e 7	Grad	e 8
tests in district.	# % # % d 65 27% 61 269	%	#	%		
Advanced	65	27%	61	26%	64	27%
Proficient	126	53%	144	61%	144	61%
Needs Improvement	41	17%	30	13%	27	11%
Warning/Failing	5	2%	2	1%	2	1%
Total	237		237		237	

Pierce Middle School MCAS Cohort Achievement History

» / т . д 1 д 2	20	11	20	112	2013	
Mathematics Students who took all	Grad	e 6	Grade 7		Grade 8	
tests in district.	#	%	#	%	#	%
Advanced	94	40%	77	33%	91	39%
Proficient	78	33%	86	37%	83	35%
Needs Improvement	50	21%	57	24%	44	19%
Warning/Failing	13	6%	15	6%	17	7%
Total	235		235		235	

Guiding Questions for Achievement Gap Analysis for Pierce Middle School

To gain a true picture of gaps in student achievement requires looking at the data from at least four different perspectives.

- Simple Gap Narrowing- Have gaps in performance between student groups decreased over time?
- Progress For All- Have all groups of students gained over time?
- Group Size- What is the magnitude of the gap between groups?
- Group Comparisons Across Jurisdictions- How does each group of students currently perform relative to their counterparts in other schools, districts, or states?

Low Income Subgroup

ELA

	2009	2010	2011	2012	2013
CPI Non Low	05.0	05.7	96.5	06.7	06.4
Income	95.9	95.7	90.5	96.7 96.4 34.7 86.7	90.4
CPI Low	90.0	06 =	96.4	0.4 =	06 =
Income	82.9	86.5	86.4	84.7	86.7
Difference	13.0	9.2	10.1	12.0	9.7

Math

	2009	2010	2011	2012	2013
CPI Non Low	87 O	90.6	91.6	00.0	01.0
Income	87.9	90.0	91.0	92.3	91.9
CPI Low	51 5	F. 4	50 6	70.0	50 5
Income	71.5	75.4	72.6	72.3	72.5
Difference	16.4	15.2	19.0	20.0	19.4

Science

	2009	2010	2011	2012	2013
CPI Non Low	75.8	79.8	80.0	81.8	76.5
Income	/5.6	/9.8	80.0	01.0	/0.5
CPI Low	50.6	65.4	55.0		50.0
Income	52.6	65.4	55.9	57.1	59.9
Difference	23.2	14.4	24.1	24. 7	16.6

Have gaps in performance between student groups decreased over time? Yes-ELA; No-Math

Have all groups of students gained over time? **ELA and Math**

What is the magnitude of the gap between groups?
Notably bigger in Math and Science compared to ELA.

How does each group of students currently perform relative to their counterparts in other schools, districts, or states? The CPI for the Pierce low

The CPI for the Pierce low income subgroup is above CPI for the state low income subgroup in Math and ELA (9.5, 3.5, respectively). Science is below the state-6.9.

African American/Black Subgroup

	2009	2010	2011	2012	2013
CPI White	97	97.3	97.1	97.5	96.8
CPI African	96.9	OC 4	07.7	05.0	0 = 0
Am./Black	36.8	86.4	87.7 85.0 8 ₇ .	87.2	
Difference	10.2	10.9	9.3	12.5	9.6

Math

	2009	2010	2011	2012	2013
CPI White	90.4	92.4	93.5	92.9	93.1
CPI African Am./Black	69.9	75.4	72.5	73.3	71.4
Difference	20.5	17	21	19.6	21. 7

Science

	2009	2010	2011	2012	2013
CPI White	79.1	81.1	80.4	837	78.7
CPI African Am./Black	59.2	62.5	67.3	56.3	54.9
Difference	19.9	18.6	13.1	27.4	23.8

Have gaps in performance between student groups decreased over time?

No

Have all groups of students gained over time?

Math

What is the magnitude of the gap between groups?

Particularly notable in math and science.

How does each group of students currently perform relative to their counterparts in other schools, districts, or states?

The CPI for the Pierce African Am/Black subgroup is above **CPI for the state African Am/Black subgroup in Math** and ELA (9.7, 4.4, respectively). Science is below the state-

-8.6.

Special Education Subgroup

ELA

	2009	2010	2011	2012	2013
CPI Non Spec	0=	06.0	07.6	0==	00.4
Education	97	96.9	97.6	97.7	98.1
CPI Spec	CO F	72.4	77.4	77.0	
Education	68.5	73.1	77.1	77.9	75.9
Difference	28.5	23.8	20.5	19.8	22.2

Math

	2009	2010	2011	2012	2013
CPI Non Spec	-6 -	(1.0	(0 0	(0 =	C
Education	56.5	61.9	60.8	63.7	61.3
CPI Spec	0.0		00.0		
Education	89	91.5	92.8	93.6	93.4
Difference	32.5	29.6	32	29.9	32.1

Science

	2009	2010	2011	2012	2013
CPI Non Spec	76.7	70	70.0	80.7	78.2
Education	/0./	79	79.9	80./	/6.2
CPI Spec	40.0		4-0	-0.0	
Education	40.3	59.4	47.2	58.8	49.5
Difference					
	36.4	19.6	32. 7	21.9	28. 7

Have gaps in performance between student groups decreased over time?

Yes- ELA No- Math & Science Have all groups of students gained over time?

Yes- ELA & Math; No- Science What is the magnitude of the gap between groups?

Notable in all subjects.

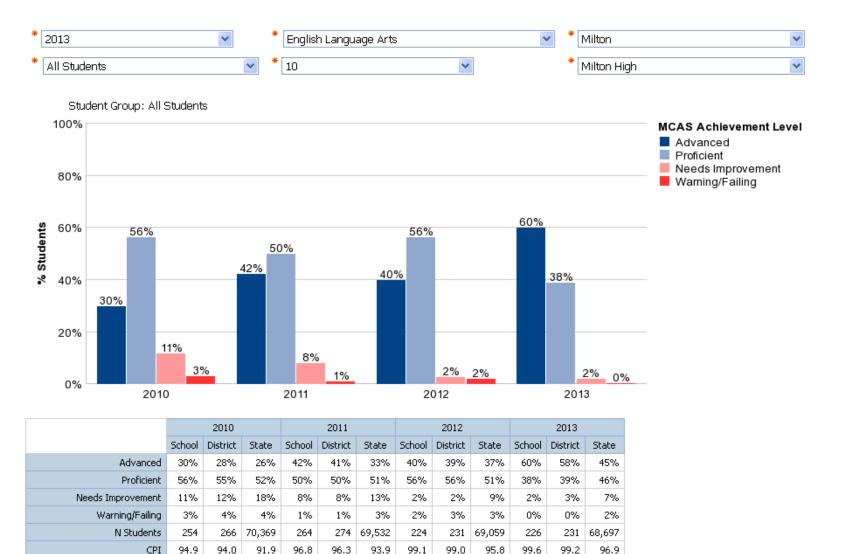
How does each group of students currently perform relative to their counterparts in other schools, districts, or states?

The CPI for the Special Education subgroup is above CPI for the state Special Education subgroup in Math and ELA (8.8, 10.7, respectively). Science is below the state-

-.6.

Milton High School 2013 MCAS Data

Milton High School - ELA Grade 10



Median SGP

46.0

45.5

50.0

58.0

57.0

50.0

41.0

41.0

50.0

58.0

57.0

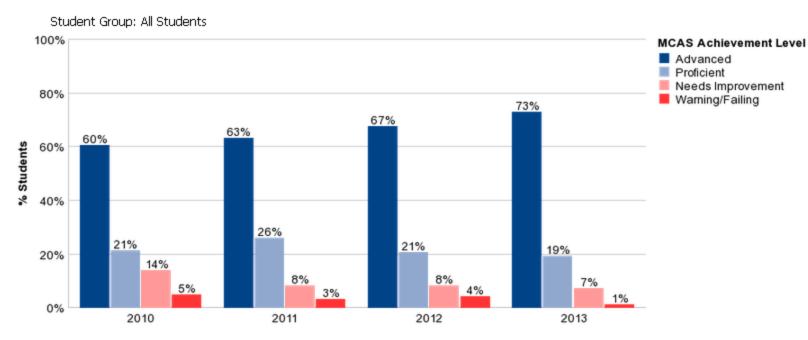
57.0

Proficient

Needs Improvement

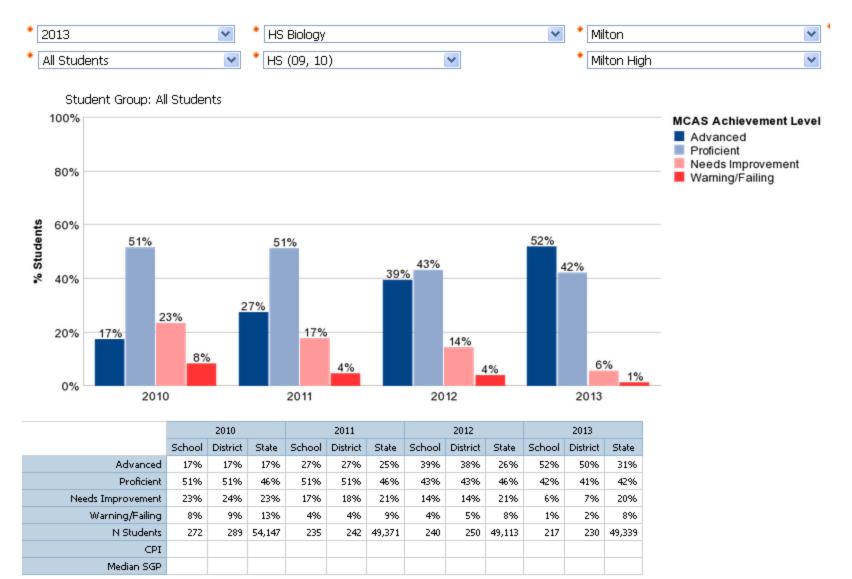
Milton High School - Math Grade 10

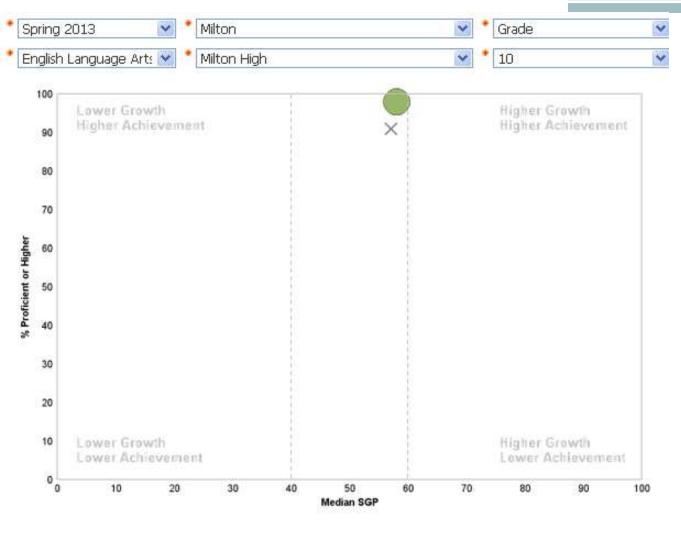




2010			2011			2012		2013				
	School	District	State									
Advanced	60%	59%	50%	63%	62%	48%	67%	66%	50%	73%	72%	55%
Proficient	21%	21%	25%	26%	26%	29%	21%	21%	28%	19%	19%	25%
Needs Improvement	14%	14%	17%	8%	9%	16%	8%	896	15%	7%	7%	13%
Warning/Failing	5%	696	7%	3%	3%	7%	4%	696	7%	1%	2%	796
N Students	255	266	70,401	264	274	69,342	224	232	69,015	225	230	68,821
CPI	92.4	91.7	88.8	95.2	94.3	89.4	95.3	94.9	90.0	96.9	96.1	90.2
Median SGP	58.0	56.0	50.0	48.0	48.0	50.0	45.0	45.0	50.0	51.0	51.0	51.0

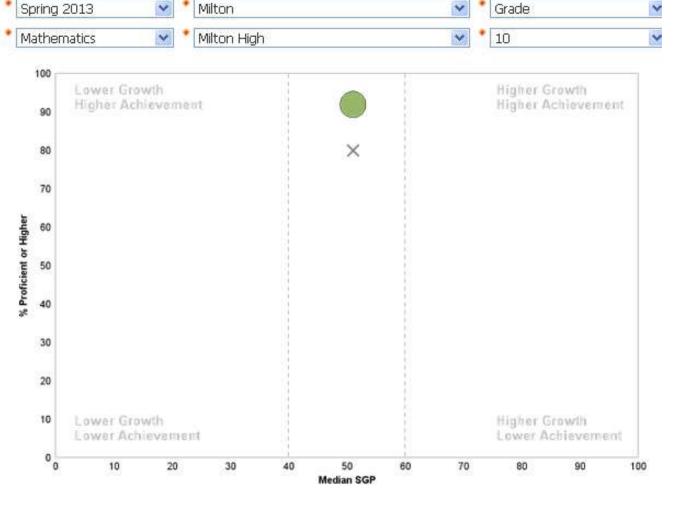
Milton High School - Biology





Milton High SchoolELA Growth and Achievement

	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 10	58	216	98	226



Milton High SchoolMath Growth and Achievement

	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 10	51	217	92	225

Milton High School MCAS Cohort Achievement History

ELA	2011		2013	
	Grade 8		Gra	de 10
	#	%	#	%
Advanced	83	31%	135	60%
Proficient	161	60%	87	38%
Needs Improvement	22	8%	4	2%
Warning/Failing	0	0%	0	0%
Total	266		226	

Milton High School MCAS Cohort Achievement History

Math	2011		20	13			
	Grade 8		Grade 8 Gra		Gra	de 10	
	#	%	#	%			
Advanced	93	35%	164	73%			
Proficient	103	39%	43	19%			
Needs Improvement	55	21%	16	7%			
Warning/Failing	15	6%	2	1%			
Total	266		225				

MHS - Low Income Subgroup

ELA	2009	2010	2011	2012	2013
CPI Non-Low	98.1	97.1	98	99.2	99.7
Income					
CPI Low	88.5	85.1	90.9	98.6	98.8
Income					
Difference	9.6	12	7.1	0.6	0.9

Math	2009	2010	2011	2012	2013
CPI Non-Low	95	95.8	96.8	96	98.2
Income					
CPI Low	77.6	77.6	86.9	91.7	91.3
Income					
Difference	17.4	18.2	9.9	4.3	6.9

Science	2009	2010	2011	2012	2013
CPI Non-Low	91.4	92.9	92.7	94	96.7
Income					
CPILow	74.2	74.4	82.1	89.3	84.2
Income					
Difference	17.2	18.5	10.6	4.7	12.5

Have gaps in performance between student groups decreased over time?

Yes-ELA and Math;
No - Science

Have all groups of students gained over time?

Yes – ELA, Math, and

Yes – ELA, Math, and Science

What is the magnitude of the gap between groups? Notably bigger in Math than ELA Fluctuates for Science

MHS - African Am./Black Subgroup

ELA	2009	2010	2011	2012	2013
CPI White	99	98.3	99.1	99.7	99.8
CPI African	87.9	88	92.2	98.1	99.5
Am./Black					
Difference	11.1	10.3	6.9	1.6	0.3

Math	2009	2010	2011	2012	2013
CPI White	96.3	96.3	98.1	97.5	98.4
CPI African	77.7	84	89	87	95.3
Am./Black					
Difference	18.6	12.3	9.1	10.5	3.1

Science	2009	2010	2011	2012	2013
CPI White	93.4	94.3	94.7	95.3	97.2
CPI African	73.3	77.7	82.1	87.2	91.1
Am./Black					
Difference	20.1	16.6	12.6	8.1	6.1

Have gaps in performance between student groups decreased over time?

Yes – ELA, Math, and Science

Have all groups of students gained over time?

Yes – ELA, Math, and Science

What is the magnitude of the gap between groups?

Almost non-existent in ELA; decreasing rapidly for Math and Science

MHS - Special Education Subgroup

ELA	2009	2010	2011	2012	2013
CPI Non Spec.	98.1	97.3	99.1	99.8	99.9
Education					
CPI Spec.	76.5	74	76.9	92.1	96.4
Education					
Difference	21.6	23.3	22.2	7.7	3.5

Math	2009	2010	2011	2012	2013
CPI Non Spec.	93.8	95.6	97.6	97.4	98.8
Education					
CPI Spec.	72.1	64.8	74.1	73.8	79.5
Education					
Difference	21.7	30.8	23.5	23.6	19.3

Science	2009	2010	2011	2012	2013
CPI Non Spec.	91.2	92.7	93.8	94.3	96.9
Education					
CPI Spec.	57.1	59.8	66.3	78.6	73.9
Education					
Difference	34.1	32.9	27.5	15.7	23

Have gaps in performance between student groups decreased over time?

Yes- ELA and Math No – Science

Have all groups of students gained over time?

Yes- ELA, Math and Science

What is the magnitude of the gap between groups?

Notable in Math and Science.