Taking Stock:

Five Years of Structural Change in Boston's Public Schools

A Boston Indicators Project Special Report

Boston's Public Schools by Type (School Year 2012-2013)

TRADITIONAL BOSTON PUBLIC SCHOOLS

School Name	Grades Served
Beethoven	Pre K-2
Boston Adult Academy	9-12
Boston International High School	9-12
Boston Latin (Exam)	7-12
Boston Latin Academy (exam)	7-12
Boston Middle School Academy (Alternative)	6-8
Brighton High	9-12
Carter Developmental Center (Special Education)	6-12
Charles H Taylor	Pre K-5
Charles Sumner	Pre K-5
Charlestown High	9-12
Community Academy (Alternative)	9-12
Community Academy of Science and Health	9-12
Curley K-8 School	Pre K-8
Curtis Guild	K-5
David A Ellis	Pre k-5
Donald Mckay	K-8
Dorchester Academy	9-12
Dr. Catherine Ellison – Rosa Parks Early Ed School	Pre K-3
Dr. William Henderson	Pre K-5
Early Childhood Center at Fifield	K0-K1
Early Learning Cente r– West Zone	Pre K-1
East Boston High	9-12
Edison K-8	Pre K-8
Edward Everett	Pre K-5
Ellis Mendell	Pre K-5
Excel High School	9-12
Franklin D Roosevelt	Pre K-8
George H Conley	Pre K-5
Harvard-Kent	Pre K-5
Haynes Early Education Center	Pre K-1
Henry Grew	K-5
Higginson/Lewis K-8	Pre K-8
Horace Mann School for the Deaf	Pre K-12
Hugh Roe O'Donnell	Pre K-5
Jackson Mann	Pre K-8
James Condon Elem	Pre K-5
James J Chittick	Pre K-5
James Otis	Pre K-5
James W Hennigan	K-5
John D Philbrick	Pre K-5
John D. O'Bryant School of Math & Science	7-12
John Marshall	Pre K-5
John W McCormack	6-8
John Winthrop	Pre K-5
Joseph J Hurley	Pre K-8
Joseph Lee	2-6
Joseph P Manning	Pre K-5
Joseph P Tynan	Pre K-5
Josiah Quincy	Pre K-5
Joyce Kilmer	Pre K-8
King K-8	Pre K-8
Lyon K-8	K-8
Manassah E Bradley	Pre K-5
Mather	Pre K-5
Mattahunt	Pre K-5
Maurice J Tobin	Pre K-8
Michael J Perkins	K-5
Mildred Avenue K-8	4-8
Mozart	Pre K-5
Nathan Hale	Pre K-5
O W Holmes	Pre K-5
Oliver Hazard Perry	Pre K-8
Patrick J Kennedy	Pre K-5
Phineas Bates	Pre K-5
Rafael Hernandez	Pre K-8
Richard J Murphy	Pre K-8
Samuel Adams	Pre K-5
Sarah Greenwood	Pre K-8
Snowden International School at Copley	9-12
Thomas J Kenny	Pre K-5
Urban Science Academy	9-12
Warren-Prescott	K-8
West Roxbury Academy	9-12
William E Russell	Pre K-5
William Ellery Channing	Pre K-5
William H Ohrenberger	3-5
William McKinley (Special Education)	Pre K-12
Winship Elementary	Pre K-5
Wm B Rogers Middle	6-8

Continued on inside back cover

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The Boston Foundation
INNOVATION. INFORMATION. IMPACT.

Dear Mayor Walsh:

Over the past five years, there has been no shortage of headlines concerning the Boston Public Schools.

There has also been no shortage of efforts to determine how well our schools and our students are doing—from the annual regimen of tests like the MCAS and NAEP, to analysis from a number of quality research organizations—including the Boston Foundation—looking at how students are doing on measures of success along the education pipeline, how different school innovations and environments are faring, and much more.

These snapshots of our progress are informative and often lead to important policy revisions that continue to shape the daily structures of our institutions of learning. But they and the news stories that surround them, may not give us a broader sense of the changes impacting our public schools in Boston and the more than 60,000 students in them.

That's why we decided to prepare this update.

Shaped by the Director of the Boston Indicators Project, Jessica Martin, and by Elizabeth Pauley, our Program Director for Education to Career strategies, and written by our Director of Public Relations, Ted McEnroe, this report is not designed to be a full analysis or accounting of the efforts to improve Boston's public schools, but to capture the impact of the structural changes of the past five years that, in sum, have created a seismic shift in public schooling in Boston.

Under Superintendent Carol Johnson and now under Interim Superintendent John McDonough, and with the added influence of legislation and outside forces, Boston's public schools have been reshaped in ways that many would not have envisioned in 2008.

Today, a demographically-diverse population of Boston students attends a wider range of public schools than ever before. And while the city's best in the nation charter schools rightly garner a great deal of attention for their innovation, autonomy and results, many school leaders within the Boston Public Schools have acquired unprecedented levels of autonomy over hiring and the structures of teaching and learning.

Is all this autonomy working? In many cases, yes. In others, it may be too soon to tell. But the successes of Boston's Charters, Turnaround Schools and others do suggest that while autonomy is not a guarantee of positive results, it may very well be a necessary precursor of school improvement. And overall, this growth in levels of autonomy across the system has helped propel a general improvement in results—particularly for low-income and minority students.

It's not a uniform picture, however. We must recognize, as you did on the campaign, that Boston's student outcomes are lagging in early education and particularly in third-grade reading, where just one in three students are reading at grade level.

As you continue the city's efforts to improve our schools, we look forward to working with you. Only by using all the options available can we continue the momentum that has been established, and attack the more intransigent problem areas in our K-12 system.

Paul S. Grogan
President and CEO, The Boston Foundation

2008 to 2013: A Timeline of Reform

There is no question the past five years have been among the most significant for education reform in the history of public schools in Boston. But when looking at the changes that have occurred, it is not a stretch to argue that some of the most impactful pieces of legislation for school reform in Boston were imposed on the city, rather than by it. The signing of the Massachusetts Education Reform Act of 1993 by then Gov. William Weld established state curriculum standards, created our assessment and accountability system, established predictable Chapter 70 funding, provided professional development and licensure standards, and set up a system of school performance indicators. But through the lens of school autonomy, it was the Act's creation of both independent Commonwealth Charter Schools and in-district Horace Mann Charter Schools that has had the most visible impact.

The passage of No Child Left Behind in 2001 created a national context for data as a driver of systemic change, and in 2010, the most significant recent piece of state legislation, the Achievement Gap Act, lifted the cap on charters and expanded autonomies as a deliberate improvement strategy for schools outside and inside school districts. It also played an important role, committing additional resources and autonomies to a subset of the state's lowest-performing "Turnaround" Schools.

Its impact is clear. Three years after being designated as Turnaround Schools, 14 of the 34 original Turnarounds had improved enough to be taken off the list, and 5, including Orchard Gardens K-8 and Trotter Elementary in Boston, had risen from Level 4 to Level 1—among the best in the state for progress and performance.

Meanwhile, a new generation of charter schools has joined their older peers among the state's best. Ten Boston charters placed in the top 10 schools statewide in at least one MCAS test in 2013—more than half of the 19 Boston charters whose students took the test.

Since 2008, too, a number of locally-driven initiatives have changed the face of Boston schools. The launch of the Acceleration Agenda in 2009 by Superintendent Johnson defined key indicators of success for BPS students by 2014, placing student achievement front and center.

Meanwhile, the signing of the Boston Charter Compact in 2011, the implementation of the weighted-student funding formula, and an accelerated effort to merge and close schools, create more K-8 pathways and target

1993

Mass Education Reform Act of 1993 established state learning standards; Student Assessment & Accountability (MCAS); Professional development and licensure standards; School Performance Indicators; Chapter 70 Funding; Creation of Charter Schools, Horace Mann Charter Schools

1994

Pilot Schools established as a partnership of the Mayor, School Committee, Superintendent and the Boston Teachers Union

1995

First Commonwealth Charter Schools open in Boston, including Neighborhood House Charter, City on a Hill and Boston Renaissance Charter School

1998

First Horace Mann Charter Schools open, including Boston Day and Evening Academy and Edward M. Kennedy Health Careers Academy

2001

No Child Left Behind

2006

BPS/BTU Pilot Expansion agreement on the creation of at least 7 new Pilot schools by 2008 including the BTU Pilot School; caps and standards for extended time and teacher pay

2007
Superintendent Carol Johnson announces plans for the Acceleration Agenda—setting goals for key indicators to be met by June 2014

2009
Mayor Menino launches Success Boston college completion initiative in partnership with BPS, the Boston Foundation, Boston Private Industry Council, UMass Boston and consortium of colleges

2010
The Achievement Gap Act of 2010: doubles the Charter Cap, creates system assessment and accountability—creation of Level 4 "Turnaround Schools," increase in Horace Mann Charter Schools, creation of Innovation Schools

2010
Mayor Menino launches Thrive in 5 school readiness initiative

2013
Carol Johnson resigns as BPS Superintendent, John McDonough named Interim Superintendent

2013
Supt. McDonough announces school-based autonomy in effort to accelerate, improve teacher hiring process

programs more specifically at English Language Learners, Students with Disabilities and dropout recovery have all highlighted the need to recognize best practices and reach previously neglected student communities.

2014 will be a key year. Some items are certain: Even as the process of hiring a new Superintendent unfolds, the BPS will be implementing a new home-based student assignment plan, working to put in place new hiring autonomies outlined by Superintendent McDonough this fall, and continuing to manage the city's version of a new state-mandated teacher evaluation system—both overseen by a new Office of Human Capital tasked with hiring, developing and retaining the best available talent for the system.

Another possible item could play out at the State House in 2014 that would have an impact in Boston in 2015 and beyond—legislation is pending that would lift the charter cap to allow Boston's Commonwealth Charter Schools the opportunity to build upon their demonstrated success, and also protect the autonomies that have proven successful in Turnaround Schools and expand those autonomies to at least a subset of Level 3 schools in the district.

Boston 2008 vs. Boston 2013: A Snapshot Of Change

While structural reform has certainly inspired change in Boston's public schools, its true value is best measured by examining the impact those changes have had on students. Seen through the lens of student performance over the past five years there is ample suggestion that these structural changes have been more than just window dressing—they have played a role in an overall improvement in student performance.

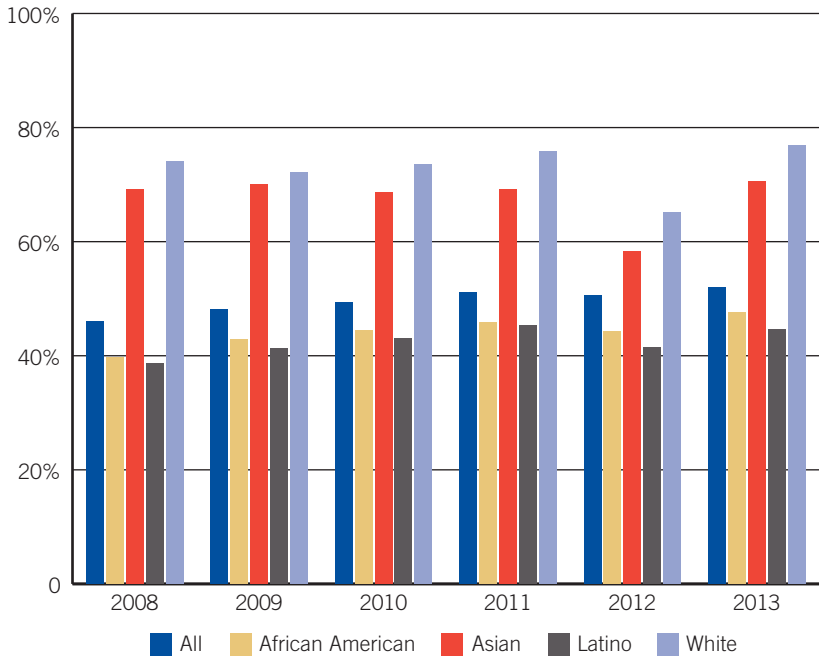
Among the most striking findings:

In aggregate, public school students in Boston have improved their MCAS performance—and are slowly closing the achievement gap among disadvantaged subgroups.

Figures 1 and 2 illustrate the change in the percentage of students scoring Proficient or higher on the MCAS across all grades between 2007-2008 and 2012-2013. In English Language Arts, the percentage of African American (+8%) and Latino (+6%) students scoring Proficient or higher on the MCAS has risen

FIGURE 1

ELA Proficiency, All Grade Levels, 2008-2013

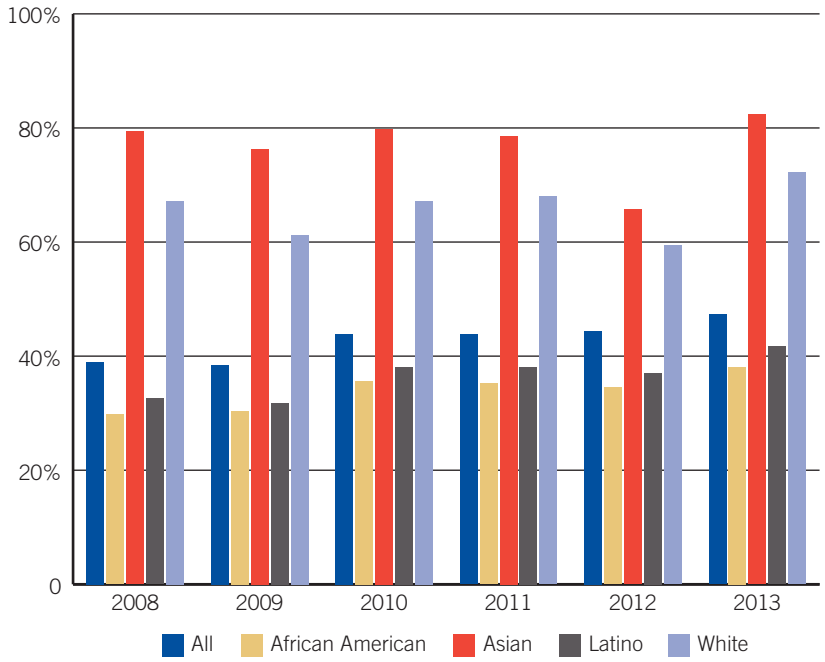


SEEN THROUGH THE LENS OF STUDENT PERFORMANCE OVER THE PAST FIVE YEARS—THERE IS AMPLE SUGGESTION THAT THESE STRUCTURAL CHANGES HAVE BEEN MORE THAN JUST WINDOW DRESSING—THEY HAVE PLAYED A ROLE IN AN OVERALL IMPROVEMENT IN STUDENT PERFORMANCE.

NOTE: All figures are based on Massachusetts Department of Elementary and Secondary Education (DESE) data unless otherwise indicated.

FIGURE 2

Math Proficiency, All Grade Levels, 2008-2013



THE NUMBER OF PUBLIC SCHOOLS IN THE CITY OF BOSTON WITH SOME FORM OF INSTRUCTIONAL AND STRUCTURAL AUTONOMY HAS NEARLY DOUBLED.

more rapidly than than for White (+3%) and Asian (+1%) students. In Math, the same holds true. Latino (+9%) and African American (+8%) students improved their proficiency more quickly than White (+5%) and Asian (+3%) students. Interestingly, while the achievement gap closed slightly by race, it has been consistently unchanged between low-income and higher income students.

The number of public schools in the city of Boston with some form of instructional and structural autonomy has nearly doubled. By the end of 2012-2013, nearly half of public schools in Boston had some level of structural and instructional autonomy.

In 2007-2008, 24 of the 139 Boston public schools had some level of autonomy, alongside 14 Commonwealth Charter public schools. Those autonomous BPS schools included 19 Pilot Schools, two Horace Mann Charters and three Extended Learning Time schools.

That number of autonomous schools stayed relatively flat until the passage of the Achievement Gap Act in 2010 launched a new era for structural change. The Act created a whole new class of autonomous schools—the Level 4 "Turnaround" School—and set the course for future charter school expansion. By 2012-2013, 44 of the 124 Boston Public Schools district schools enjoyed some form of autonomy, alongside a cohort of 20 Commonwealth Charter public

FIGURE 3

Boston Schools by Type and Autonomy, 2008-2013

	2008	2009	2010	2011	2012	2013
Boston Public Schools	139	139	133	133	121	124
Traditional	115	115	106	96	82	80
Pilot	19	19	22	20	19	19
Horace Mann	2	2	2	2	4	5
Extended Learning Time	3	3	3	3	4	5
Turnaround				11	11	11
Innovation				1	1	4
Commonwealth Charters	14	14	14	14	18	20
SUMMARY	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Traditional	115	115	106	96	82	80
Autonomous	38	38	41	51	57	64
Percent Autonomous	24.8%	24.8%	27.9%	34.7%	41.0%	44.4%

schools. In total, 44.4% of public schools in Boston had autonomy. While the number of Pilot Schools has stalled—a product of the challenging union/district environment—the city's 11 Turnarounds, four Innovation Schools, three new Horace Mann Charters have driven a broad-based expansion in the number of BPS schools with autonomy.

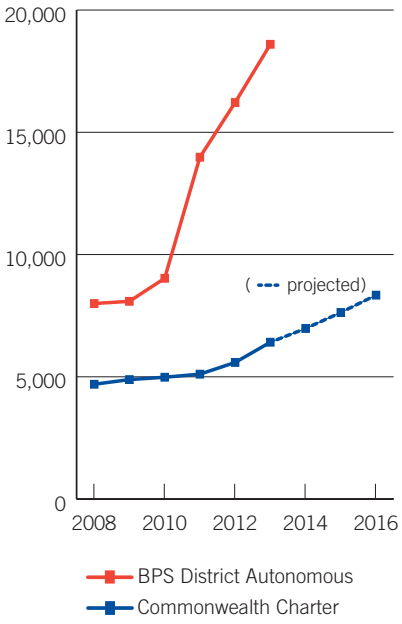
From a student perspective, the number of Boston students in autonomous schools has nearly doubled—but it is actually autonomous schools within BPS, not charters, driving the growth.

It's not a surprise that if the number of schools with some autonomy has nearly doubled, that the number of students in such schools would rise at a similar rate. But while Commonwealth Charters get a great deal of attention, the total number of Boston students currently in Commonwealth Charters is actually a third of the number of students in autonomous BPS schools.

As Figure 4 shows, that is in part because of the deliberate pace with which new charters open. The expansion plans of existing charters alone will bring the number of students in autonomous Boston public schools to more than 45 percent by 2015-16, even if no new district schools are given autonomy. But even so, Commonwealth Charter students would comprise less than 15 percent of the overall public school student population at current levels.

FIGURE 4

Students by School Autonomy 2008-2016



Note: 2013-2016 Estimates provided by Massachusetts Charter Public School Association

Demographically and structurally, Boston public schools have made substantial shifts in just the past five years, with a growing number of students at lower grades, and a system of schools featuring more K-8 and middle/high schools in the city's portfolio.

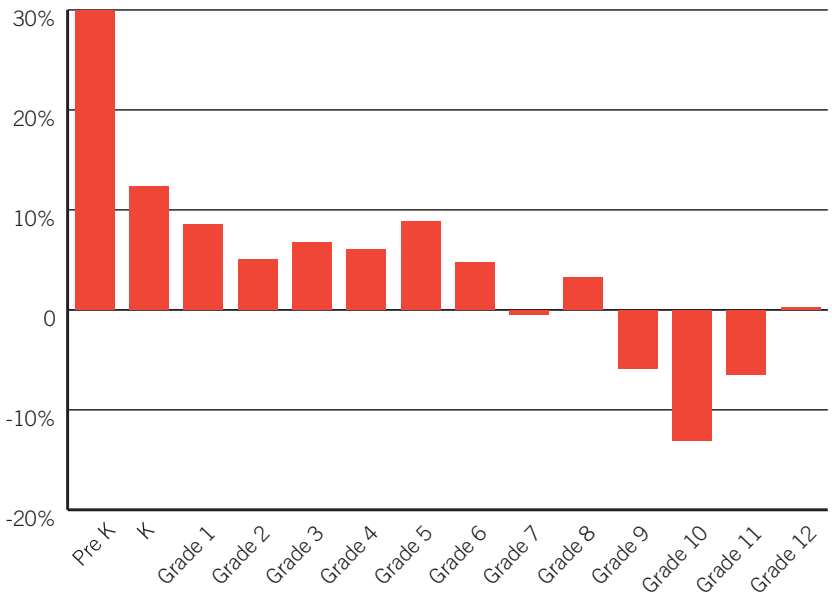
TODAY'S STUDENTS ATTEND A SYSTEM WITH SIGNIFICANTLY FEWER K-5 ELEMENTARY SCHOOLS, GRADE 6-8 MIDDLE SCHOOLS AND GRADE 9-12 HIGH SCHOOLS THAN THERE WERE JUST FIVE YEARS AGO.

Demographically, the number of school-aged children in Boston has fallen from more than 82,000 in 2000 to just under 72,000 in 2012-13—but a larger percentage of those students are choosing public schools. Over the past two decades, the percentage of Boston students in public schools (either district or charter) has climbed steadily, from about 77 percent to nearly 87 percent—with the growth of charter school enrollment (from zero to more than 5,000 enrolled in 2012) and a sharp decline in the number of private and parochial school seats (from 17,000 to just over 9,300) driving the shift.

That student population is younger than before, as well. Every enrollment grade from Pre-K to Grade 6 has shown a growth in population from 2008 to 2013. In grades 7-12, enrollment has dropped in 4 of the 6 grade levels, with a net loss of more than 1,300 students in grades 9, 10 and 11 alone.

FIGURE 5

Enrollment Change by Grade Level, All Public Schools in Boston, 2008-2013



Shifting enrollment patterns and a desire to move toward what BPS calls "pathways" have played into a structural change in the grade levels offered at many public schools in Boston. Today's students attend a system with significantly fewer K-5 elementary schools, Grade 6-8 middle schools and Grade 9-12 high schools than there were just five years ago. In 2008, 113 (74%) of the

153 public schools in Boston were designated as traditional elementary, middle or high schools; and 31 (20%) combined either elementary and middle grades or middle and high school grades.

By 2013, the landscape had shifted. In 2012-2013, just 87 (60%) of the 144 public schools in Boston were defined by traditional grade levels, while the number of K-8 and middle/high schools rose to 47, just shy of one-third of the public schools in the city. Of note, these combined schools are twice as likely (57% to 28%) to operate with autonomies than traditionally defined schools.

FIGURE 6

Boston Public Schools by Grade Level

	2008	2009	2010	2011	2012	2013
Early Ed Centers	6	6	6	6	6	7
Elementary Schools	60	60	54	54	49	49
Elem/Middle Schools	21	21	26	26	29	32
High Schools	33	33	33	33	26	27
Middle Schools	20	20	13	13	13	11
Middle/High Schools	10	10	12	12	13	15
Special Populations	3	3	3	3	3	3

FIGURE 7

Percentage of Autonomous Schools by Grade Level

	2008	2009	2010	2011	2012	2013
Early Ed Centers	33%	33%	33%	33%	50%	43%
Elementary Schools	7%	7%	7%	20%	22%	22%
Elem/Middle Schools	33%	33%	31%	31%	38%	47%
High Schools	33%	33%	36%	42%	50%	56%
Middle Schools	35%	35%	46%	54%	69%	73%
Middle/High Schools	70%	70%	75%	75%	77%	80%
Special Populations	0%	0%	0%	0%	0%	0%
Total	**25%**	**25%**	**28%**	**35%**	**41%**	**44%**

...THERE ARE MAJOR STRIDES IN MEASURED ACADEMIC PROFICIENCY AS STUDENTS MOVE INTO HIGHER GRADES, PARTICULARLY IN THOSE SCHOOLS THAT HAVE AUTONOMIES.

Grade-Level Evaluations

While taking a look at the overall K-12 spectrum helps us see some enlightening trends in structural change in the Boston Public Schools and its charter public schools, we wanted to examine the student achievement trends in recent years to see what structural changes might be correlated with student success at various grade levels.

For this, we are looking at five key grade levels for students—Kindergarten, Grade 3, Grade 6, Grade 8, and Grade 10, with an examination of high school completion and post-secondary outcomes as well. In each case, we look at both key indicators of success and demographic data.

What we find is a system that struggles to make headway in the early grades, but one where there are major strides in measured academic proficiency as students move into higher grades, particularly in those schools that have autonomies. Throughout the system, though, there remains much opportunity for improvement in how Boston students perform, both in school and in higher education.

KINDERGARTEN: Slow progress, narrowing gaps

At the Kindergarten level, the percentage of Boston Public Schools students that are meeting readiness standards entering Kindergarten has risen since 2010—but it is slow progress, from 56% in 2010-11 to 59% in 2012-13. However, 2012-13 noted a disappointing drop in those meeting end-of-year benchmark goals, perhaps in part because of a change in the test measuring readiness—from an earlier version of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test to the new DIBELS Next measure. In 2012-13, just 66% of students scored at benchmark on DIBELS Next, down from 77% in 2010-11, and 76% in 2011-12 using the previous DIBELS.

The results of the new test raise as many questions as they answer in year 1—under the new test the percentage of Asian and Black students at benchmark rose strongly at the beginning of 2012-13 from the previous year, but by the end of the year, the percentage of students scoring at benchmark actually fell for 3 groups, Asian and Black males, and White females. Only Latino males and females continued to post the double-digit gains they had under the older tests—and both groups started with far lower percentages at benchmark at the beginning of the school year.

A positive sign from the results is that the gap between the worst and high-performing groups on the test has narrowed slightly. In 2010-11, the gap between the scores of Latino males (the lowest-performing) and White females

FIGURE 8

DIBELS and DIBELS *Next* Results by Race and Gender

	DIBELS in Kindergarten (% at Benchmark)		DIBELS in Kindergarten (% at Benchmark)		DIBELS *Next* in Kindergarten (% at Benchmark)	
	SY2010-11		SY2011-12		SY2012-13	
	Beginning of Year	End of Year	Beginning of Year	End of Year	Beginning of Year	End of Year
All Students	56%	77%	57%	76%	59%	66%
Asian Males	49%	82%	59%	83%	74%	73%
Asian Females	52%	88%	62%	83%	70%	73%
Black Males	52%	70%	55%	72%	63%	62%
Black Females	60%	79%	62%	80%	68%	70%
Latino Males	48%	70%	46%	68%	45%	56%
Latino Females	52%	76%	55%	75%	53%	69%
White Males	80%	84%	72%	81%	71%	75%
White Females	82%	90%	80%	89%	81%	75%

Source: Boston Public Schools

NOTE: DIBELS and DIBELS Next data are not available for charter schools.

(the highest-performing) was 34 points at the beginning of the school year and 20 points at the end. In 2012-2013, the gap was 36 percent at the beginning and 19 at the end.

The gap between Latino and White females shrunk more sharply. It narrowed by 16 points over the course of 2010-11, but in 2013 it shrunk 22 points.

With the new test in place, it may be premature to read too far into the 2012-13 numbers. But the 2013-14 numbers will deserve great scrutiny—both for the scores and for further examination of the differences in the tests themselves.

GRADE 3: Nothing positive to read into results

Put simply, at the third-grade level, there is very little positive news to be seen even through the most rose-colored glasses. As in 2008, the number of Boston students scoring Proficient or higher in third-grade reading has remained stubbornly at just one in three. As third-grade reading is a key indicator of future academic success, improving these numbers must be a critical element of our continued reform efforts. Indeed, former Superintendent Johnson's Acceleration Agenda called for the third-grade reading proficiency to hit 75 percent by this coming spring —a number that now feels light years away.

Unlike what we will see in later grades, though, there are few clear indicators of strategies in place in Boston that will drive positive change. Charter school

AS IN 2008, THE NUMBER OF BOSTON STUDENTS SCORING PROFICIENT OR HIGHER IN THIRD-GRADE READING HAS REMAINED STUBBORNLY AT JUST ONE IN THREE.

students substantially outperform their BPS peers, but charters and all other subgroups saw a substantial drop in their Grade 3 ELA scores on the 2013 MCAS. Extended Learning Time and Turnaround Schools had fewer than

FIGURE 9

3rd Grade MCAS ELA Proficient or Higher by School Type and Performance by English Language Learners and Students with Disabilities

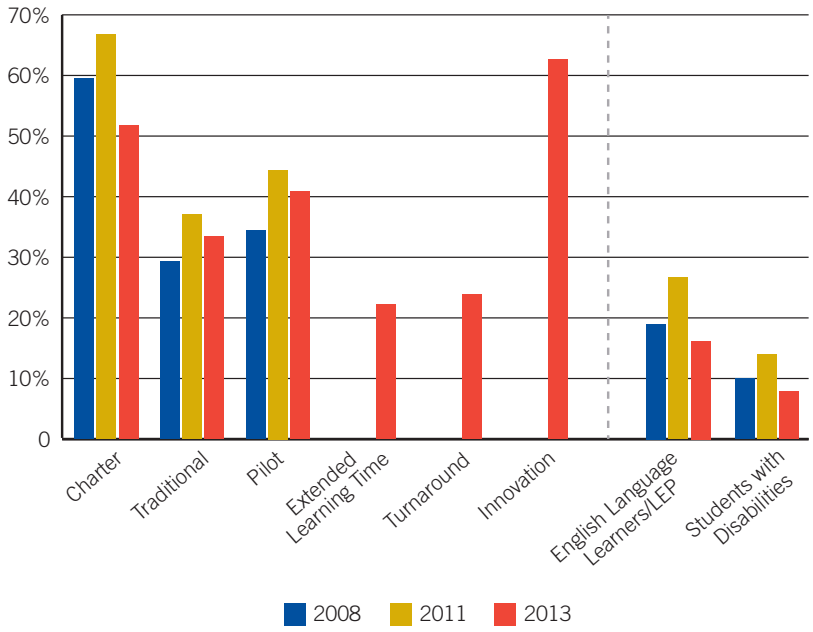
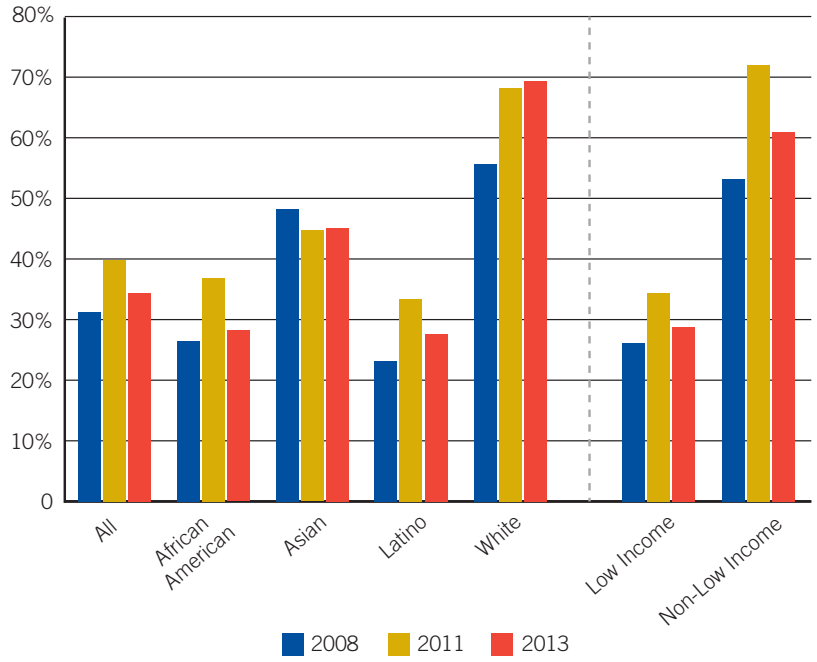


FIGURE 10

3rd Grade MCAS ELA by Subgroup, Income Level



1-in-4 students score Proficient or higher. And English Language Learners and Students with Disabilities saw their percentage scoring Proficient or higher fall over the 2008 to 2013 time frame.

Demographically, the news about the achievement gap between White students and Black and Latino students is not encouraging. While the percentage of White students scoring Proficient or higher steadily increased from 56% in 2008 to 69% in 2013, much smaller increases over time for Black and Latino students mean that the gap between Black and White students, which stood at just under 30 points in 2008 has risen to 41 points in 2013. The Latino/White gap grew from 33 points to 42.

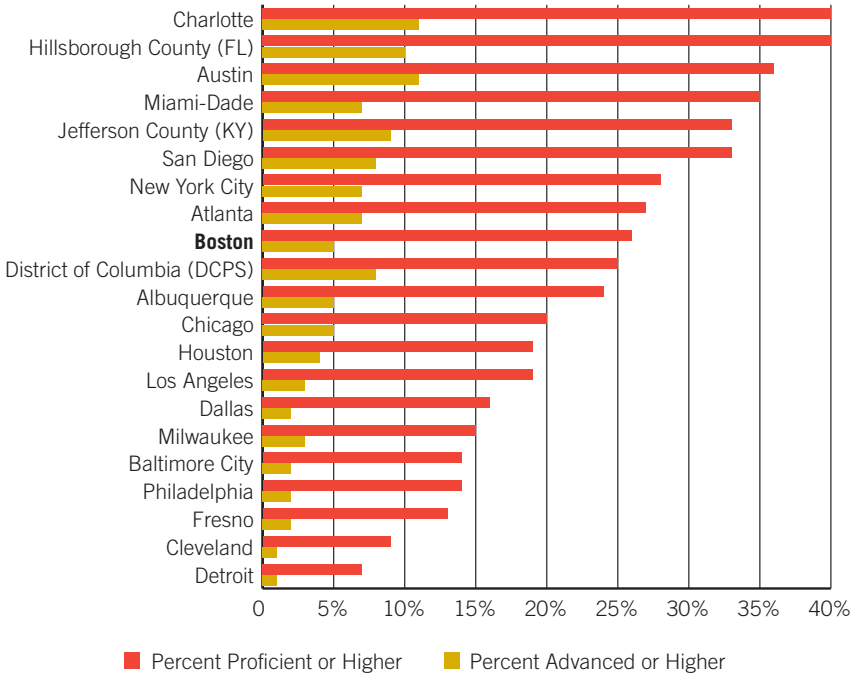
And the gap has grown between low income and non-low income students—from 27 points in 2008 to 32 points in 2013. Mayor Menino's creation of Thrive in 5 in 2010 and of a Boston Opportunity Agenda task force in 2012 to take on the issues of third-grade reading has been a start, but coming up with strategies to move the numbers is both a critical and daunting task.

Boston in Context: If Boston can take marginal comfort, it is in the fact that the city is not alone in struggling with the elementary reading issue. In 2013 Boston ranked 9th of 21 urban districts taking part in the Trial Urban District Assessment (TUDA) in 4th-grade reading, with just 26 percent of 4th-graders scoring Proficient or higher. Just two districts—Atlanta and Los Angeles—significantly improved their 4th-grade reading scores between 2009 and 2013, but both rank below Boston today.

DEMOGRAPHICALLY, THE NEWS ABOUT THE ACHIEVEMENT GAP BETWEEN WHITE STUDENTS AND BLACK AND LATINO STUDENTS IS NOT ENCOURAGING.

FIGURE 11

4th Grade Reading Proficiency by City, 2013



Source: National Assessment of Educational Progress (NAEP); Trial Urban District Assessment (TUDA)

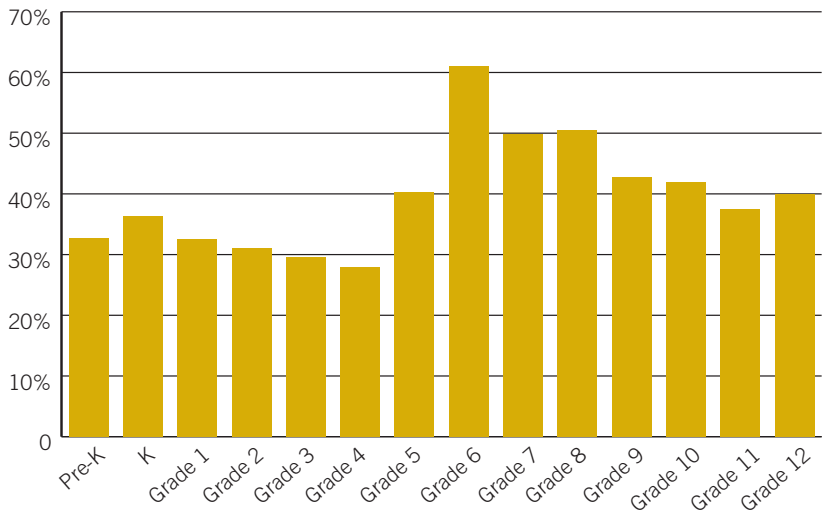
GRADE 6: The rise of the autonomous schools

...A GREATER PERCENTAGE OF BOSTON PUBLIC SCHOOL STUDENTS ATTEND EITHER AUTONOMOUS SCHOOLS OR SCHOOLS WITH SUBSTANTIAL AUTONOMIES IN GRADE 6 THAN AT ANY OTHER GRADE LEVEL IN THE SYSTEM.

While Grade 3 scores stubbornly defy school improvement efforts, in the later grades one begins to see measurable growth in both school-level autonomy and student performance. Grade 6 is also in some ways Ground Zero for the rise of school autonomy—a greater percentage of Boston public school students attend either autonomous schools or schools with substantial autonomies in Grade 6 than at any other grade level in the system.

FIGURE 12

Percentage of Students in Schools With Autonomy by Grade, 2013



Examining the MCAS from 2008, 2011 and 2013, Boston charter schools post an enviable record—with not only a much higher percentage of students scoring Proficient or higher on the MCAS (67% to 43%) than "traditional" Boston Public Schools, but with student growth percentiles (SGP) over 60 in both 2011 and 2013. Not only are students in these schools meeting standards at a higher rate than their BPS peers, they are improving at a rate that exceeds the state average for year-over-year improvement.

Charters are not alone, though—the district's Level 4 Turnaround Schools, defined as the state's most struggling schools based on an analysis of four-year trends in absolute achievement, student growth, and improvement trends on the MCAS, have been able to leverage the flexibilities and additional resources they have been given to post high SGP in 2011 and 2013, as well. And the city's single Horace Mann (UP Academy Boston) and Innovation School (Eliot K-8 School) at Grade 6 also posted higher SGP in 2013, as noted in the table. The improvement levels are not evident in schools with lesser autonomy, Pilot Schools and ELT schools—which matched the "traditional" district schools overall.

FIGURE 13

2013 6th Grade ELA and Math MCAS, Percentage Scoring Proficient or Higher and Student Growth Percentile (SGP) by School Type

By Structure: ELA Proficiency			Growth (SGP)	
	2008	2013	2011	2013
Total	47.3%	47.7%	40	50.5
Charter	61.2%	67.1%	62.5	65
Traditional	45.2%	42.8%	33.5	44
Pilot	40.6%	41.9%	38	44
ELT	44.3%	42.3%	57.5	45.5
Turnaround		34.7%	56	61
Horace Mann (UP Academy Boston)		46.8%		67
Innovation (Eliot K-8)		90.0%		56.5

By Structure: Math Proficiency			Growth (SGP)	
	2008	2013	2011	2013
Total	37.2%	50.5%	48	56
Charter	56.5%	70.2%	85.5	78
Traditional	33.4%	42.7%	36.75	48
Pilot	34.4%	47.4%	38	48
ELT	33.1%	46.1%	50	53
Turnaround		35.6%	51	35
Horace Mann (UP Academy Boston)		63.2%		86
Innovation (Eliot K-8)		95.0%		92

The results in math follow a similar form. Boston charters not only achieve scores of Proficient or higher for 70% of 6th graders, they post astronomical SGP numbers of 85.5 in 2011 and 78 in 2013. In fact, the number 1 school in Massachusetts on the 6th-grade math MCAS in 2013 was the Edward M. Brooke Charter School in Mattapan. In fact, the number 1 school in Massachusetts in the 6th-grade math MCAS in 2013 was the Edward M. Brooke Charter School in Mattapan, tied with a Boston Innovation School—the Eliot K-8— and two others. The Eliot also posted a remarkable SGP of 92, while the city's Horace Mann Charter (UP Academy, Boston) posted an SGP of 86.

Boston's Turnaround Schools lagged in 2013, while Pilot Schools matched and ELT schools slightly outperformed the district's more traditional schools.

THE RESULTS IN MATH FOLLOW A SIMILAR FORM. BOSTON CHARTERS NOT ONLY ACHIEVE SCORES OF PROFICIENT OR HIGHER FOR 70% OF 6TH GRADERS, THEY POST ASTRONOMICAL SGP NUMBERS OF 85.5 IN 2011 AND 78 IN 2013.

FIGURE 14

2013 Schools with High Student Growth (60 or higher SGP) for ELA and Math, Grade 6

	Proficient or Higher		Growth Percentile		
	ELA	Math	ELA	Math	School Type
Academy Of the Pacific Rim Charter Public School	76%	78%	63.5	73.5	Commonwealth Charter
Boston Collegiate Charter School	83%	78%	79	78	Commonwealth Charter
Boston Preparatory Charter Public School	59%	64%	69	88	Commonwealth Charter
Edward W. Brooke Charter School 2	84%	95%	69.5	88	Commonwealth Charter
Excel Academy Charter School	89%	77%	81	76	Commonwealth Charter
Franklin D Roosevelt K-8 School	77%	77%	79.5	79.5	Traditional
Lilla G. Frederick Middle School	32%	39%	67	75	Pilot
MATCH Charter Public School	49%	74%	65	85	Commonwealth Charter
Orchard Gardens K-8 School	27%	41%	65	65	Turnaround
Roxbury Preparatory Charter School	59%	62%	67	84	Commonwealth Charter
Smith Leadership Academy Charter Public School	60%	55%	72.5	84	Commonwealth Charter
UP Academy Charter School of Boston	47%	63%	67	86	Horace Mann Charter
William H Ohrenberger School	66%	56%	65.5	66.5	Traditional

In all, the list of the city's fastest-improving schools is dominated by schools with some level of autonomy. Of 13 schools in the city with SGP of 60+ in both math and ELA for Grade 6 in 2013, 11 of them (eight Commonwealth Charters, one Pilot School, one Horace Mann Charter and one Turnaround School) had some significant level of autonomy. Just two of the district's traditional schools performed at this level.

GRADE 8: Achievement Gap Narrowing?

At Grade 8, we see not only some continuation of improvement by the city's more autonomous schools, but a striking new finding. In 8th-grade math, from 2008 to 2013, we see some signs of a narrowing of the achievement gap, as African-American and Latino students actually outgained their White and Asian peers, as shown in Figure 15.

Overall, math proficiency rose by 6 points, driven by continued sizable gains at charter schools and among Turnaround Schools up 14 and 16 percentage points, respectively.

FIGURE 15

8th Grade Math MCAS Proficiency—by Subgroup

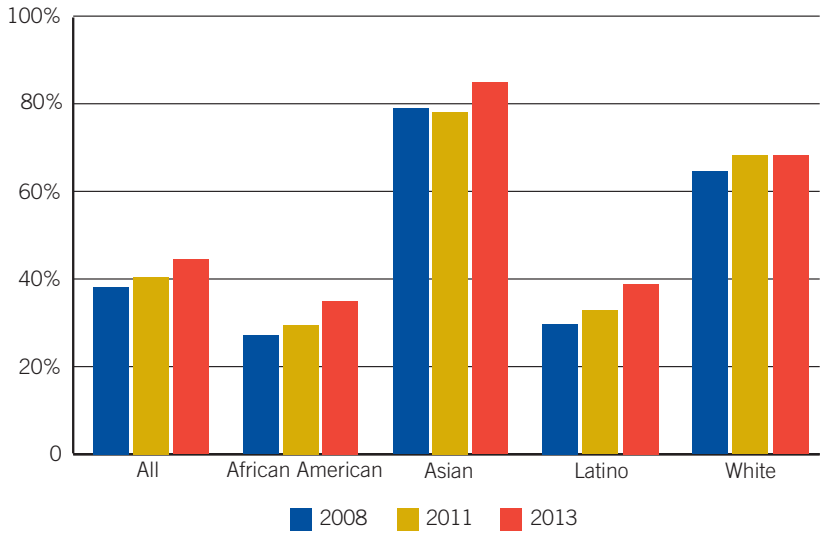
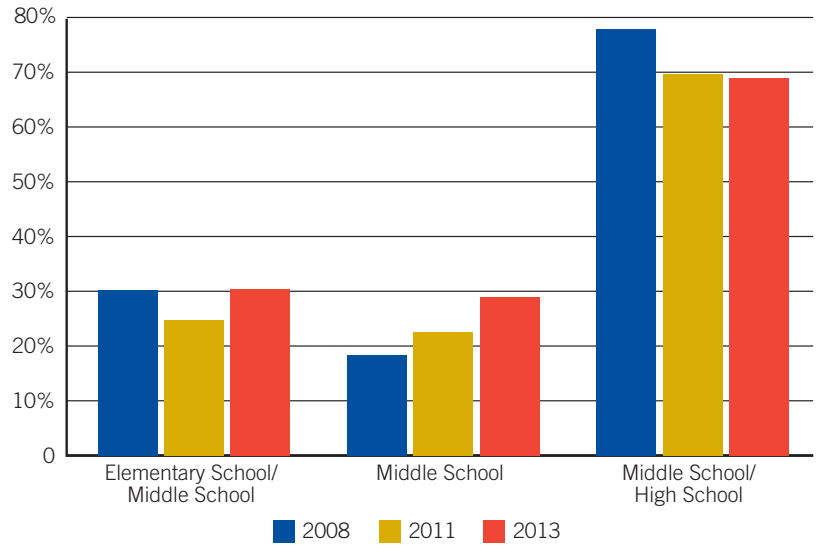


FIGURE 16

8th Grade Math MCAS Proficiency—by School Type



IN 8TH-GRADE MATH, FROM 2008 TO 2013, WE SEE SOME SIGNS OF A NARROWING OF THE ACHIEVEMENT GAP

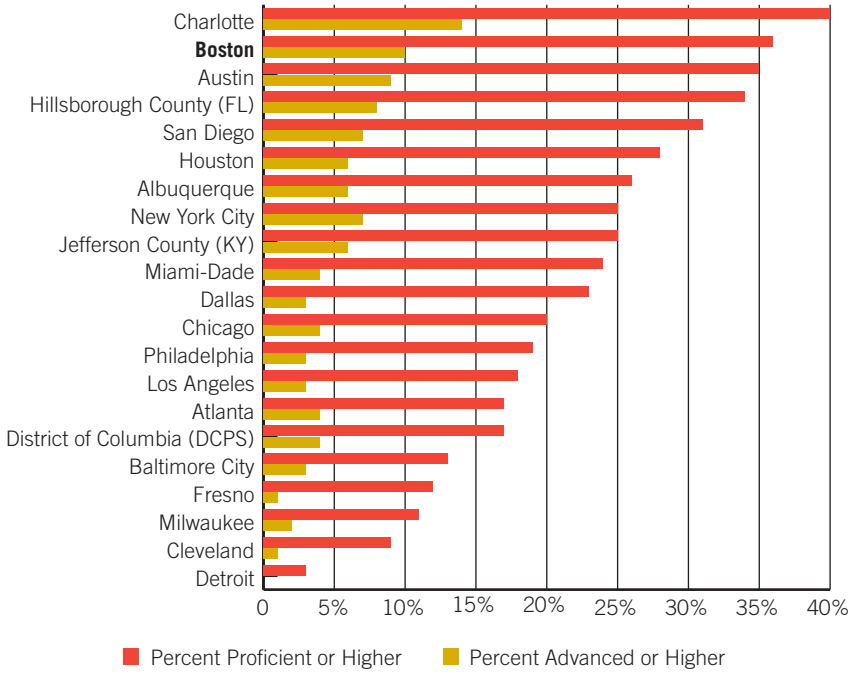
The data also capture differences in MCAS proficiency by school type. The data show that the rate of MCAS proficiency is more than twice as high in middle/high schools than in either K-8 or middle schools—attributable in part to the fact that the city's three exam schools are all Grades 7-12, and that 8 of the city's 20 high-scoring charters are considered middle/high schools.

The data also show that the proficiency rate at middle schools jumped from 18% in 2008 to 29% in 2013. That change, however, could be connected with the changes in the district's school portfolio. In 2008, 20 public schools in Boston

AT THE 10TH-GRADE LEVEL, THERE ARE ALSO A NUMBER OF ENCOURAGING CHANGES OVER TIME.

FIGURE 17

8th Grade Math Proficiency by City, 2013



Source: Trial Urban District Assessment (TUDA)

were middle schools, including seven with some level of autonomy. By 2013, mergers and changes left just 11 middle schools in the city, eight of which had some autonomy (one Commonwealth Charter, one Horace Mann, one Turnaround, two Pilots and three ELT schools).

Boston in Context: Perhaps the most encouraging finding is in revisiting the Trial Urban District Assessment (TUDA)—where Boston exceeds the national average and is second of the 21 urban districts in percent of 8th graders scoring Proficient or higher in Math, at 36%. However, Boston's rate of improvement on the TUDA has slowed in recent years. (See Figure 17.)

GRADE 10: Improving, but plenty of headroom

At the 10th-grade level, there are also a number of encouraging changes over time. The percentage of Boston students scoring Proficient or higher is up 21 percentage points in ELA, 5 in Math and 21 in Science.

In addition, we see a significant decline in the achievement gap—with the proficiency gap between White and African American students closing by 18 points in ELA (from 33 to 15 points), 8 points in Math (from 38 to 30 points) and 2 points in Science (from 40 to 38 points). For Latino students, the reductions are similar—16 points in ELA (from 33 to 17 points), 4 in Math (from 31 to 27 points) and 4 in Science (from 43 to 39 points).

FIGURE 18

Percentage of Students Scoring Proficient or Higher, Grade 10 MCAS by Subject Area and Subgroup, 2013

	10th Grade Math MCAS		10th Grade ELA MCAS		10th Grade Science MCAS	
	2013	Chg. 2008-2013	2013	Chg. 2008-2013	2013	Chg. 2008-2013
All Students	66.5%	+5	81.8%	+21	53.8%	+21
African American	57.9%	+8	79.8%	+26	44.5%	+22
Asian	94.7%	0	89.2%	+5	80.7%	+9
Latino	60.4%	+4	77.6%	+25	43.6%	+25
White	87.7%	0	94.7%	+8	82.4%	+20

FIGURE 19

Percentage of Students Scoring Proficient or Higher, Grade 10 MCAS by Subject Area and School Type, 2013

	10th Grade Math MCAS		10th Grade ELA MCAS		10th Grade Science MCAS	
	2013	Chg. 2008-2013	2013	Chg. 2008-2013	2013	Chg. 2008-2013
Charter	87.7%	+5	97.4%	+14	82.4%	+22
Traditional	68.2%	+9	79.6%	+24	54.8%	+24
Pilot	65.0%	+3	85.0%	+23	39.2%	+22
Turnaround	49.1%	+14	86.3%	+35	43.3%	+27
Horace Mann	39.7%	-2*	61.1%	+22*	33.8%	+20*
Innovation (Madison Park)	30.2%	N/A	52.4%	N/A	22.3%	N/A

The strength of Boston Commonwealth Charters on these measures shouldn't be ignored—97.4% of Boston charter students scored Proficient or higher in 10th grade ELA and 87.7% scored Proficient or higher in math. That's nearly 20 points clear of any other school type—and well above the state average for proficiency.

The overall score improvements are worth noting, as well. In ELA, Pilot Schools and Horace Mann charters gained 33 and 35 percentage points each in proficiency, and Turnarounds jumped more than 21 points in just two years. Boston's more traditional schools improved proficiency by 24 points. Math results were more uneven, with traditional schools (including the city's exam

schools) improving proficiency by 9 points since 2008, but with numbers largely unchanged from 2011.

DESPITE IMPROVEMENT SINCE 2008, JUST 28% OF PUBLIC SCHOOL STUDENTS IN BOSTON SCORE ADVANCED ON THE 10TH GRADE ELA MCAS, AND JUST 40% SCORE ADVANCED IN MATH

Indicators of post-secondary success

While proficiency gets the attention, as the graduation standard for Massachusetts schools, it is not necessarily the best predictor of post-secondary success. A May 2013 report from MIT's School Effectiveness and Inequality Initiative published by the Boston Foundation found that students from Boston's charters were more likely to enter higher education, particularly four-year colleges, than students from BPS non-exam schools, but that they graduated students from high school in four years at a slightly lower level.

Indeed, the city has long touted its high school graduation rates. But our enthusiasm must be tempered by two observations. Research from Professor Andrew Sum at Northeastern's Center for Labor Market Studies suggests a score of Advanced, rather than Proficient, is a better indicator of post-secondary success. Here, Boston's public schools have much room to grow. Despite improvement since 2008, just 28% of public school students in Boston score Advanced on the 10th grade ELA MCAS, and just 40% score Advanced in Math. African-American and Latino students lag other groups by a substantial margin.

Additionally, research from the Center for Labor Market Studies finds that large numbers of Boston Public Schools graduates are placed in remedial courses when they enroll in higher education, adding to their financial burdens and delaying their degrees. Researchers found that for the BPS Class of 2011, 60 percent of the BPS graduates who attended community college after graduation had to take at least one remedial course. It should be noted that those Class of 2011 students would have taken the 10th-grade MCAS in 2009 or earlier.

FIGURE 20

Percentage of Students Scoring Advanced, Grade 10 MCAS by Subject Area and Subgroup, 2013

	10th Grade Math MCAS		10th Grade ELA MCAS		10th Grade Science MCAS	
	2013	Chg. 2008-2013	2013	Chg. 2008-2013	2013	Chg. 2008-2013
All Students	40.4%	+4	28.1%	+14	16.7%	+12
African American	28.6%	+4	20.9%	+13	9.1%	+7
Asian	80.5%	-3	51.8%	+17	42.7%	+22
Latino	30.5%	+4	18.8%	+10	9.9%	+9
White	73.8%	+4	59.8%	+24	37.9%	+25

School Autonomy and Student Performance

The comparison between Commonwealth Charter Schools and Boston Public Schools district schools is an annual part of the release of the MCAS results, but charters are just one type of autonomous public school in the city, and proficiency is just one way to examine performance. How do all types of schools with autonomy, from the most autonomous like Horace Mann and Commonwealth Charters and Turnaround Schools compare with those with lesser autonomy or those the district refers to as "traditional" schools?

Rather than look through the traditional lens of proficiency, a focus on median Student Growth Percentile (SGP) allows for a comparison of schools and school types based on the annual improvement of their students.

These charts examine MCAS results at Grades 4, 6, 8 and 10 from 2013 to get a sense of how public schools of each type performed in terms of growth. Higher numbers reflect higher SGP—the school types are arranged from highest levels of staffing and structural autonomy to least.

FIGURE 21

Median Student Growth Percentile by School Autonomy 4th Grade ELA and Math, 2013

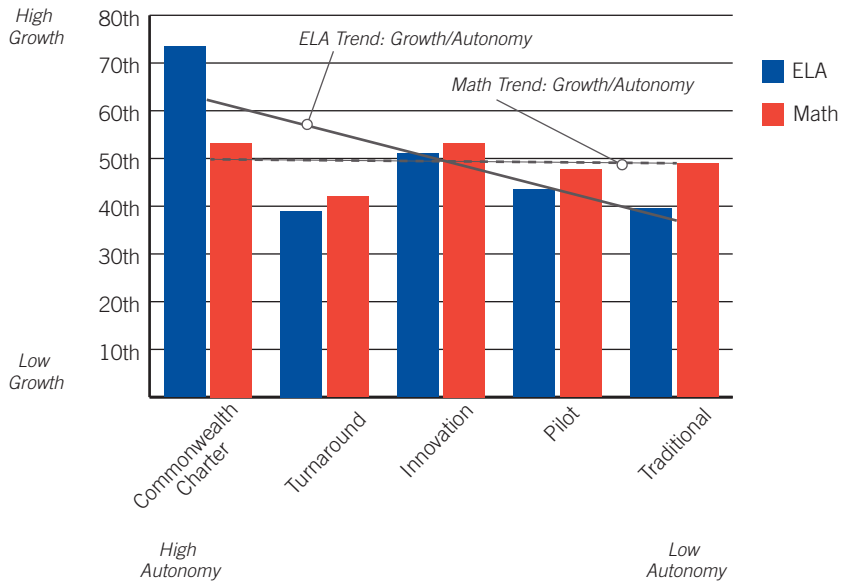


FIGURE 22

Median Student Growth Percentile by School Autonomy 6th Grade ELA and Math, 2013

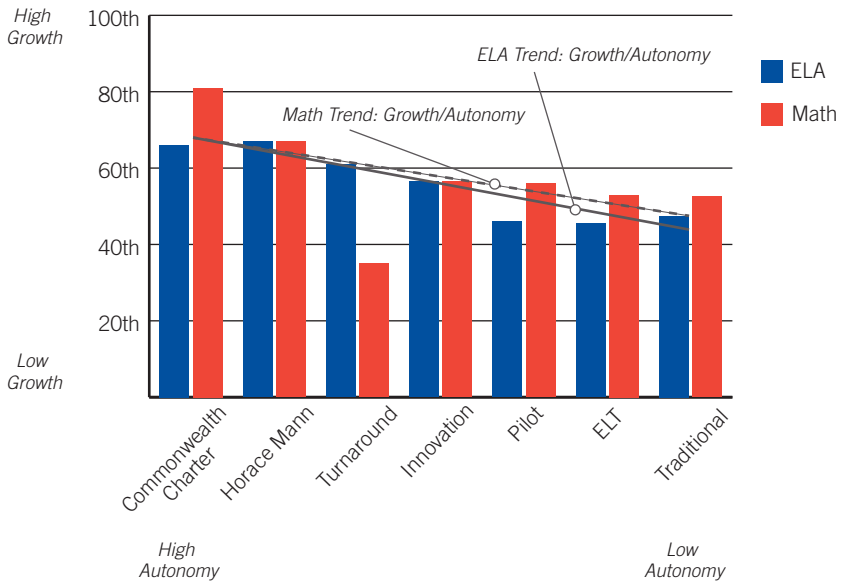


FIGURE 23

Median Student Growth Percentile by School Autonomy 8th Grade ELA and Math, 2013

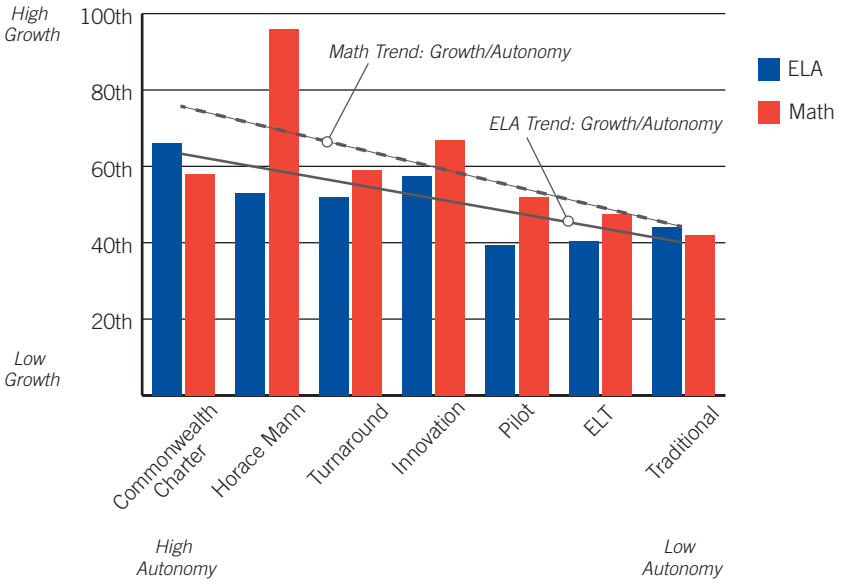
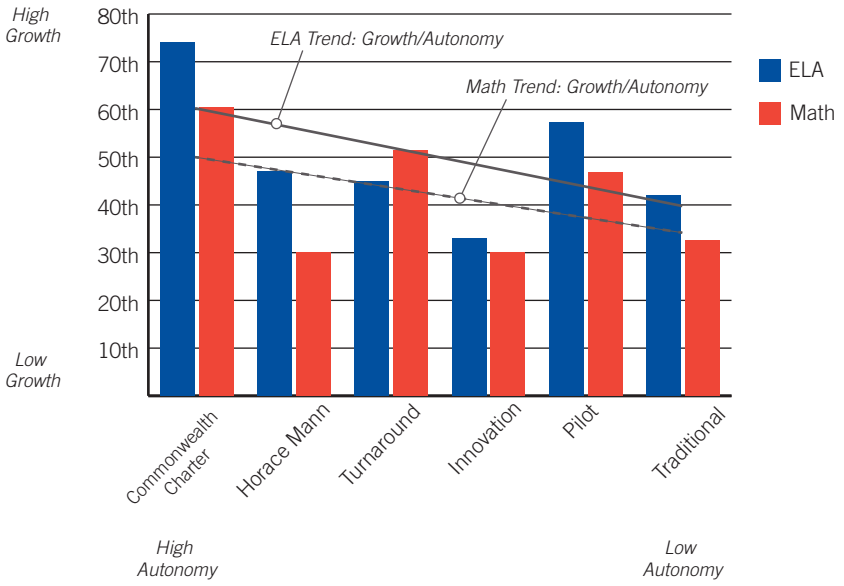


FIGURE 24

Median Student Growth Percentile by School Autonomy 10th Grade ELA and Math, 2013



In all but one case (Grade 4 math), the trend lines suggest a correlation between student growth as measured by SGP on the MCAS and schools with greater autonomy. A few words of caution—this is a broad analysis and SGP is not necessarily a perfect measure of student development—but pending further study it appears autonomy, while not a guarantee of success, may be a powerful enabler for schools to more rapidly improve their student performance.

Looking Ahead: Unresolved Issues

THE WALSH CAMPAIGN REPEATEDLY DROVE HOME THE NEED FOR AN EXPANSION OF EARLY CHILDHOOD EDUCATION IN THE CITY, WITH THE GOAL OF MAKING EARLY CHILDHOOD EDUCATION UNIVERSAL IN THE CITY.

In 2014, the Walsh Administration will have to make a decision on a new Superintendent for the Boston Public Schools. But while the Superintendent search is likely the highest profile challenge ahead, it is clearly not the only one. Having noted the challenges of improving outcomes in the early grades in particular, and the indications that autonomy appears to be in many cases a necessary precursor of school improvement, these may prove to be among the most crucial.

Footing the Bill for Early Education:

The Walsh campaign repeatedly drove home the need for an expansion of early childhood education in the city, with the goal of making early childhood education universal in the city. There is no question this would have value—both demonstrated in other cities that have implemented universal pre-K, and supported by the still unfortunately low numbers of five year olds (particularly those of color) arriving to school prepared for the work.

The challenge, of course, is finding ways to pay for this expansion, particularly during the transition when the expansion of early childhood education won't be offset by improvements in student preparation in the higher grades.

The Third-Grade Reading Problem:

While no grade level is free of challenge in a school system like Boston—the issue of third-grade reading is one that cannot be ignored. And unlike in other grade levels, where there are signs of the kinds of programs that might work established in the city, there are few places to point toward as example. The commission appointed by Mayor Menino to look at the issue is a start, but it will take more than talk to move the needle. If any city is in a position to address this vexing issue, though, Boston has the resources and expertise to be the one.

Implementation of School Assignment Changes and Quality Schools:

The disappointing showing of our third graders highlights a challenge of the new school assignment plan for parents—the lack of quality schools in many neighborhoods. Parental frustration over a lack of perceived strong choices, combined with the continued impact of the charter cap will create a charged environment for the new school assignment plan. It will require not just careful

implementation but likely a lifting of the charter cap and a stronger effort to make charters and district schools work more effectively to improve the planning process.

Continuing Support for Successful Autonomies:

Boston's autonomous schools are proving their value on a number of measures—not only Charters, but Turnaround Schools, Horace Mann Charters and Innovation Schools, among others, are setting high standards and expectations. But today the additional funding for extended learning time, and investments in Turnarounds, Innovation Schools and other programs is limited in duration or intended for schools only until they improve. Rethinking funding and ensuring the most promising practices are able to be supported is critical—as is the need to ensure that the state reimbursement for districts that have students moving from BPS to charter schools is fully funded.

Rethinking the District and Staff Role:

The major changes being implemented over the past and coming years will require a very different district structure than what has been needed in past years. As greater decision making power shifts to individual schools, it necessitates changes in the district's role from one of oversight to support. Other changes, such as the implementation of hiring autonomy, will require funding to handle a newly-created pool of displaced teachers.

These changes are necessary, but they will require a fundamentally new approach to district functions, training and preparation at the school level to ensure school leaders are prepared to take on their changing roles, and potentially the building of new partnerships to provide resources and support for both the district and individual schools.

Finding a Superintendent well-suited to take on these challenges will be a critical piece of the system's ability to continue its reform path in the coming years.

RETHINKING FUNDING AND ENSURING THE MOST PROMISING PRACTICES ARE ABLE TO BE SUPPORTED IS CRITICAL

About the Boston Indicators Project

The Boston Indicators Project is an initiative of the Boston Foundation that offers new ways to understand Boston and its neighborhoods in a regional, national and global context. The Project aims to democratize access to information, foster informed public discourse, track progress on shared civic goals and report on change in 10 sectors: Civic Vitality, Cultural Life and the Arts, the Economy, Education, the Environment, Health, Housing, Public Safety, Technology, and Transportation.

Every two years, a major report is published that focuses on issues that are critical to Boston's regional economic competitiveness.

Through the Boston Indicators Project website, visitors can track change and progress on more than 150 indicators through cutting-edge, interactive visualizations and download the data behind these visualizations.

For more information, visit: bostonindicators.org

Continued from inside front cover

COMMONWEALTH CHARTER SCHOOLS

School Name	Grades Served
Academy Of the Pacific Rim Charter Public School	5-12
Boston Collegiate Charter School	5-12
Boston Preparatory Charter Public School	6-12
Boston Renaissance Charter Public School	K-6
Bridge Boston Charter School	Pre K-8
City On A Hill Charter Public School	0-12
Codman Academy Charter Public School	Pre K-12
Conservatory Lab Charter School	Pre K-8
Dorchester Collegiate Academy Charter	4-12
Edward Brooke Charter School	K-8
Edward W. Brooke Charter School 2	K-8
Edward W. Brooke Charter School 3	K-8
Excel Academy Charter School	5-12
Excel Academy Charter School – Boston II	5-12
KIPP Academy Boston Charter School	K-8
MATCH Charter Public School	5-12
MATCH Community Day Charter Public School	Pre K-12
Neighborhood House Charter School	Pre K-8
Roxbury Preparatory Charter School	5-12
Smith Leadership Academy Charter Public School	6-8

HORACE MANN CHARTER SCHOOLS

School Name	Grades Served
Boston Day and Evening Academy Charter School	9-12
Boston Green Academy	6-12
Dudley Street Neighborhood Charter School	Pre K-5
Edward M. Kennedy Academy for Health Career	9-12
UP Academy Charter School of Boston	6-8

TURNAROUND SCHOOLS

School Name	Grades Served
Blackstone	Pre K-5
Dearborn	6-8
Elihu Greenwood	K-5
Harbor School	6-10
Jeremiah E Burke High	9-12
John F Kennedy	Pre K-5
John P Holland	Pre K-5
Orchard Gardens	Pre K-8
Paul A Dever	Pre K-5
The English High	9-12
William Monroe Trotter	Pre K-5

INNOVATION SCHOOLS

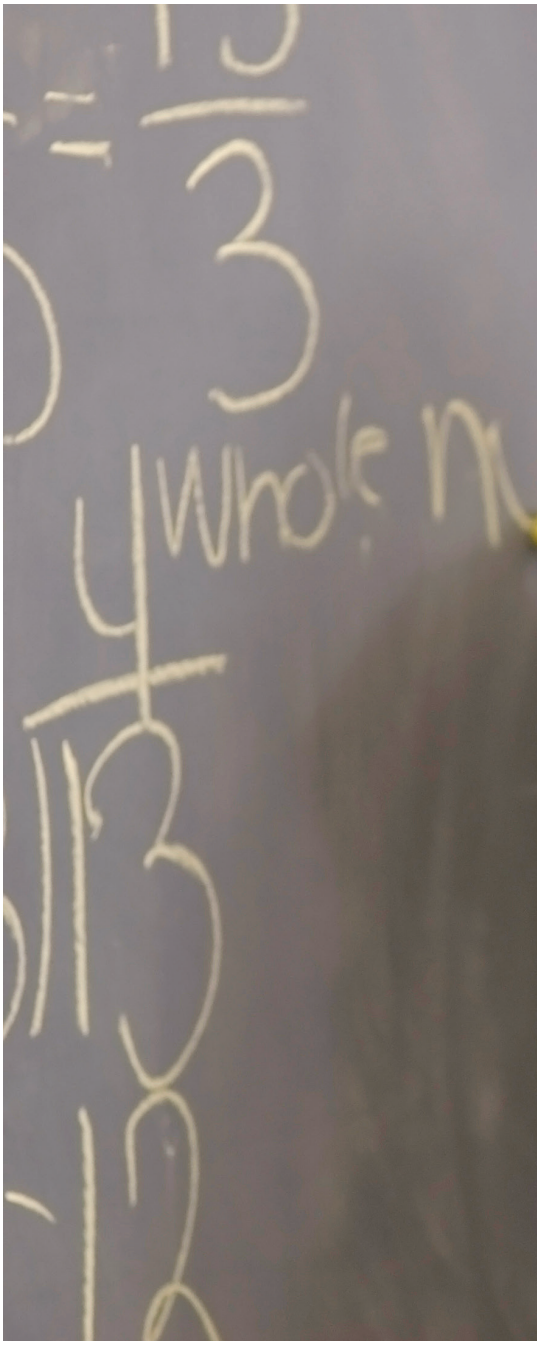
School Name	Grades Served
Eliot Elementary	Pre K-8
Madison Park High	9-12
Margarita Muniz Academy	9-12
Roger Clap	Pre K-5

PILOT SCHOOLS

School Name	Grades Served
Another Course To College	9-12
Baldwin Early Learning Center	Pre K-1
Boston Arts Academy	9-12
Boston Community Leadership Academy	9-12
Boston Teachers Union School	Pre K-8
Dennis C Haley	Pre K-5
Egleston Comm High School	9-12
Fenway High School	9-12
Gardner Pilot Academy	Pre K-8
Lee Academy (Special Education)	Pre K-1
Lilla G. Frederick Middle School	6-8
Lyndon	Pre K-8
Lyon Upper School	9-12
Mission Hill School	Pre K-8
New Mission High School	9-12
Quincy Upper School	6-12
Samuel W Mason	Pre K-5
TechBoston Academy	6-12
Young Achievers	Pre K-8

EXTENDED LEARNING SCHOOLS

School Name	Grades Served
Clarence R Edwards Middle	6-8
East Boston Early Education Center	Pre K-1
James P Timilty Middle	6-8
Mario Umana Academy	K-8
Washington Irving Middle	6-8



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