Progress and Promise

Results from the Boston Pilot Schools

January 2006

Center for Collaborative Education

Center for
Collaborative
Education

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Contents

Executive Summary iv

Introduction 1

The Purpose of Pilot Schools 2

Key Features of Pilot Schools 3

Expansion of Pilot Schools Network 4

How Pilot Schools Fit into the National and Local School Reform Landscape 5

Why Examine the Pilot Schools' Outcomes? 6

Pilot School Student Demographics 8

Characteristics of Pilot Schools 13

Pilot School Student Engagement and Performance 17

Indicators of School Engagement 17

Indicators of Student Performance 20

Conclusions 26

Implications for Other Schools and Districts 29

References 33

Appendix A: Methods 35

Appendix B: Methods for School Characteristics 40

Appendix C: 2003–04 Pilot School Outcomes by School 42

Appendix D: Boston Pilot Schools/Horace Mann Network Vision Statement; and Principles and Practices 46

Appendix E: School Lists 48

BPS Schools 48

Exam Schools 48

Schools Excluded from the Data Set 49

Acknowledgments 51

Executive Summary

New research conducted by Boston's Center for Collaborative Education documents significant achievement by students who attend the city's Pilot Schools. Pilot School students are performing better than the district averages across every indicator of student engagement and performance, including the statewide standardized assessment (MCAS). In other standard measures, Pilot School students show better rates of attendance and fewer out-of-school suspensions, and more go on to attend university or technical college after they graduate.

Key findings of the report[1]

Academic Performance

- **Higher performance on the state standardized test—the Massachusetts Comprehensive Assessment System (MCAS)**

When MCAS scores of students at Pilot Schools are compared to BPS averages, Pilot School students consistently score better. For example, 46 percent of the Pilot School fourth graders were rated *advanced* or *proficient* in the grade 4 English Language Arts (ELA) MCAS, compared to 29 percent of BPS students. Math scores were also far apart, with 37 percent of Pilot School fourth-grade students scoring advanced or proficient, compared to 21 percent of BPS students. The percentage of fourth-grade students that received *passing* scores in the math and ELA MCAS tests was also higher in Pilot Schools, although the difference was smaller.

1 The study reports on 15 of the 19 schools, leaving out the Early Learning Center, 2 schools that opened in the year studied, and another school that opened in 2004–2005.

> Our vision is to help every student, when they leave us, to not only get to college, but to get them through college. —Principal

The tenth-grade English Language Arts test showed a particularly wide disparity between Pilot School students and BPS students. On average, 84 percent of Pilot School students passed the test, compared to 58 percent of BPS students. As a proportion, more than twice as many Pilot School students as BPS students were in the advanced/proficient category.

Tenth-grade math MCAS scores were similarly higher than those posted by BPS high schools. Eighty percent of Pilot School students passed the tenth-grade math MCAS test, compared to 59 percent of BPS students.

It is noteworthy that the difference in performance between Pilots and BPS schools increased by grade level—so that the largest differences in MCAS performance are at the high school level. This difference is also seen in the engagement indicators of attendance and suspension levels discussed below.

> I like the [idea] of this school being a college prep [school]. We have a lot more discussions in the classroom, and the teachers involve every student. — Student

- **Higher college-going rate**

A higher proportion of Pilot School students continue their education at a university or a technical college, as compared to BPS graduates.[2] The average for all Pilot Schools is 79 percent, compared to an average of 67 percent for all BPS graduates. Individual Pilot Schools did far better than the average. For example, 94 percent of students graduating from Fenway High School, a Pilot School, attended university or technical college. One Pilot School, Greater Egleston Community High School, posted a percentage of students going on to university or technical college that was lower than the BPS average—50 percent compared to 67 percent. However, that reflects in part Greater Egleston's mission, which is to serve students who have previously left or dropped out of other high schools.

Engagement

- **Higher attendance rates**
- **Lower suspension rates**
- **Lower in-district and out-of-district transfer rates**

For attendance, elementary Pilot Schools posted a median rate of 97 percent, compared to 96 percent for BPS elementary schools. Pilot middle schools posted a median attendance rate of 97 percent, compared to 94 percent in BPS middle schools. And for high schools, the Pilot School median attendance rate was 95 percent, compared to a BPS high school rate of 89 percent.

2 Survey data on post-secondary participation of 2003 high school graduates was provided by the Boston Private Industry Council (PIC) as derived population estimates. Results are displayed as the proportion of graduates who were enrolled in post-secondary education one year after graduation.

For out-of-school suspension rates, BPS elementary schools posted an average of 3 percent, compared to 1 percent for Pilot Schools. Among middle schools, BPS schools posted an average of 14 percent, compared to 12 percent for Pilot Schools. And for high schools, BPS had a rate of 9 percent out-of-school suspensions compared to 5 percent for Pilot Schools.

Boston School Superintendent Thomas Payzant says he is encouraged by the results of the study. "What this report shows is that real progress that can change the lives of students is possible. Pilot Schools have made an invaluable contribution to public education in Boston." The Pilot Schools have grown and thrived under Payzant's ten-year stewardship. Payzant points out that many other school systems around the country continue to send observers to Boston to see Pilot Schools, an important part of the Boston Public Schools' comprehensive pre-K through 12 reform plan.

Richard Stutman, president of the Boston Teachers Union, is also proud of the progress Pilot Schools have made. "This report shows that the Pilot model is a vital avenue for teacher growth and innovation. It is important for us that the lessons and best practices learned from Pilots be considered for other schools. It's exciting to see the progress that has been made by Boston students."

Pilot Schools are Boston Public Schools

The Pilot Schools—which operate with autonomy within the school district—were created in 1995 through a unique partnership that included the mayor, the office of the superintendent, the school committee, and the teachers union. Boston is the only city in the country to create Pilot Schools to serve as models of innovation, with the purpose of identifying "best practices" and sharing them with public school educators in Boston and beyond. In addition to educating the children who attend them, the Pilot Schools serve as research and development laboratories, creating and assessing strategies that can create success within an urban public school system.

Students in Pilot Schools are on the whole representative of students in the public system with regard to economic status; race and ethnicity; and in the proportion of mainstream special education students attending the schools.[3] As well, over time Pilot Schools are becoming increasingly more representative of students with moderate to severe special needs. The number of Pilot Schools has grown from the first year, when 5 Pilot Schools enrolled about 1.5 percent of the BPS population. Today, 19 schools (pre-K through 12) in Boston use the Pilot School model to serve 5,900 students, or about 10 percent of the public school population.[4] By creating the Pilot Schools—which offer choice, smallness, and accountability—the Boston Public Schools have taken on a national leadership role in urban school reform.

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3 A primary goal of the Pilot School Network is to serve students representative of BPS as a whole. Pilot middle and high schools have achieved this goal. Representative enrollment has not yet been reached at the elementary level—Pilot elementary schools serve a smaller percent of low-income students and students of color than BPS. However, as new elementary Pilot Schools have opened, Pilot elementary demographics are getting closer to BPS elementary student demographics.

4 Two of the 19 are Horace Mann charter schools in addition to being part of the Pilot School Network. Horace Mann charters are granted autonomy by the state department of education while also remaining part of the district and the teachers union.

Pilot Schools have used their autonomy to create curriculum, assessment, and school structures that support high expectations and achievement.

Key features of Pilot Schools

Although they serve essentially the same student population, Pilot Schools are different from traditional public schools in significant ways. Pilot Schools have far more autonomy over their resources (including budget, staffing, curriculum, governance, and the calendar) in order to best serve their students. While Pilot Schools employ a diversity of educational approaches, they share certain key characteristics. Pilot Schools are:

- **Accountable.** Pilot Schools are held to high standards of performance through a five-year-cycle, high-stakes school quality review process, using a set of benchmarks that articulates the criteria for high-performing schools.
- **Small and Nurturing.** Pilot Schools place great emphasis on creating a nurturing school culture in which teachers attend closely to each student's learning needs. Only two of the 19 Pilot Schools have more than 500 students, and both of them are organized into multiple small academies.
- **Vision-Driven.** Every Pilot School has created a vision focused on equity and the fundamental belief in every child's potential. This vision shapes the teaching and the work of every member of the school community. Pilot Schools have the power then to hire teachers and staff who can support this vision.

Five Autonomies:

- Budget
- Staffing
- Curriculum, Instruction, and Assessment
- Governance and Policies
- Schedule

Pilot Schools use their autonomy to improve teaching and learning

The report emphasizes that Pilot Schools have used their autonomy to create curriculum, assessment, and school structures that support high expectations and achievement. Pilot Schools commit to making time for faculty collaboration and planning—which are crucial for improving a school's culture and

Current Boston Pilot Schools

School Name	Grades Served in 2003–2004
Elementary	
Baldwin ELC	K0 to 1
Samuel Mason School	K0 to 5
Lee Academy	N/A
Elementary-Middle	
Lyndon Elementary School	K to 8
Young Achievers	K to 8
Mission Hill School	K to 8
Orchard Gardens Pilot School	K to 8
Middle	
The Harbor School	6 to 8
Lilla G. Frederick Pilot Middle School (formerly New Boston Pilot Middle School)	6 to 8
Middle-High	
Josiah Quincy Upper School	6 to 10
High	
Fenway High School	9 to 12
Greater Egleston Community High School	ungraded
New Mission High School	9 to 12
Health Careers Academy (Horace Mann Charter)	9 to 12
Boston Arts Academy	9 to 12
Boston Day and Evening Academy (Horace Mann Charter)	ungraded
Boston Community Leadership Academy (BCLA)	9 to 12
Tech Boston Academy	9 to 10
Another Course to College	9, 11, 12

performance. With the same per pupil budget as BPS schools, Pilot Schools as compared to the district average have:

- **Low class sizes** (average of 20 in elementary schools and 19 in secondary schools).
- **Low overall student-teacher loads in secondary schools** (average of 55 students per teacher).
- **Long instructional periods.**
- **Significant collaborative faculty planning time**, a key correlate to increased student achievement.
- **A nurturing school culture**, featuring advisories, learning centers, and student support teams.
- **Graduation by demonstrating competency or mastery.** In almost all Pilot Schools, in order to graduate (from eighth or twelfth grades), students must demonstrate mastery of a defined set of skills and content knowledge through a series of assessments. This approach stands in contrast to the traditional standard of qualifying for graduation by course completion and adequate performance on standardized tests.

The Pilot School strategy has strengthened the Boston Public Schools

Excellent single schools are relatively common, but it is rare for excellence to spread throughout a large urban district. The Pilot School strategy has also led to improvements throughout the Boston Public Schools:

- **The Pilot approach to high school graduation was instrumental in leading to a new BPS graduation policy.** Under the new policy, a high school can choose to propose a unique course sequence and assessment for graduation.
- **The success of the Pilot high schools was an important factor in Superintendent Payzant's recommendation** to the school committee to authorize conversion of four large BPS high schools to small schools sharing space and resources. These new small schools have been granted limited autonomy over their budgets.
- **The Pilot autonomies have informed the use of autonomy in other selected BPS schools.** These schools can seek autonomy from a district policy if the waiver will advance their teaching and learning agendas.

Through their choice, commitment, and hard work, Pilot School teachers, students, and families have created models of educational excellence and innovation *within* the BPS system. They demonstrate that teacher unions and districts working together can make the system stronger and more successful.

Introduction

What does it take to give each student access to an excellent education? Boston High School was once one of the lowest-performing high schools in the Boston Public Schools. When the school department announced in 2001 that it would close the school, the principal led the staff, students, and families through a process that would keep it open. The superintendent allowed the school to propose conversion to Pilot status, and in September 2002, Boston High School opened as Boston Community Leadership Academy (BCLA), a Pilot high school. The Pilot high school continued to serve a demographically similar population of students while it became intentionally smaller through graduation and smaller incoming classes.

In two years, the school achieved dramatic improvement in student engagement and achievement. BCLA was able to accomplish this success by making significant changes in mission and vision, schedule, staffing, curriculum, and leadership roles—changes that would not have been possible without the autonomy granted through Pilot status. Progress was not easy. Many of Boston High's students faced being part of a school that was not like the high school they had chosen to attend. As one student put it, "At first, we weren't really aware of all the changes…we thought the school's title was just going to change, but we didn't realize that it was going to get a lot more academically rigorous…I think…looking back, it was a great change. In the beginning, I was a little apprehensive…but it got better…a lot better."

Within two years of its conversion to Pilot status, BCLA surpassed the district average in both math and English Language Arts (ELA) performance on MCAS. In 2001, Boston High students performed below the district in both math and ELA, with 31% of students passing math and 41% passing ELA. In 2004, more than three quarters of students passed the math and ELA tests.

Introduction

As we examine BCLA and the other Boston Pilot Schools—in terms of student demographics, engagement, and performance—behind the data is the work of thousands of students, families, and teachers. Their accomplishments, shown in this report, have strengthened Boston's public school system. The Pilot School model promises to inform work in other districts as well.

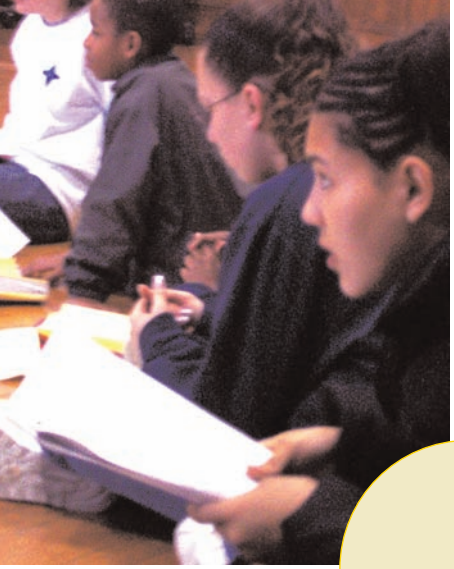
The Purpose of Pilot Schools

The Boston Pilot Schools were explicitly created to be models of educational innovation and to serve as research and development sites for effective urban public schools within the district. The result of a partnership among the Boston mayor, school committee, superintendent, and teachers union, the Boston Pilot Schools were opened in 1995 to promote increased choice options within the school district, largely in response to 1994 state legislation creating first-time charter schools and the potential subsequent loss of Boston students to area charter schools. The Pilot Schools Network is a systemic model that demonstrates how districts and teachers unions can work together to support the creation of innovative schools.

What makes this network of public schools unique is that, by virtue of an innovative teachers union contract, and by stipulation of the school department, they have autonomy over budget, staffing, governance, curriculum, and schedule (BTU, 2003). These autonomies provide increased flexibility to organize schools and staffing to best meet students' needs, while operating within the economies of scale of a large urban public school district. Teachers tend to cite curriculum autonomy as a crucial component of Pilot status. Administrators credit their budget and staffing autonomies with allowing them to shape the culture of the school. As one principal puts it: *"We align our resources with our student needs. [We put] more focus on teaching and learning and less focus on 'administrivia.' As our school climate is becoming healthier, we are spending less money on discipline…."*

Through their choice, commitment, and hard work, Pilot School teachers, students, and families have created models of educational excellence and innovation *within* the Boston Public School system. They have made the system stronger and more successful.

As part of a network, Pilot Schools are not isolated entities. The Center for Collaborative Education (CCE), a nonprofit education organization, convenes the Pilot Schools Network and provides the Pilot Schools with coaching services, professional development, advocacy, and research. These network activities, facilitated by CCE, allow the Pilot Schools to collaborate with one another in pursuit of their goals and to create mutual accountability for results.



> We align our resources with our student needs. [We put] more focus on teaching and learning and less focus on 'administrivia.' As our school climate is becoming healthier, we are spending less money on discipline.…" —Pilot principal

Key Features of Pilot Schools

Pilot Schools are:

- **Autonomous.** The defining philosophy of Pilot Schools is that if schools are provided maximum control over their resources to create an innovative education program, in exchange for increased accountability, student engagement and performance will improve. Pilot Schools have autonomy over budget, staffing, curriculum, governance, and schedule.
- **Accountable.** Pilot Schools are held to high standards of performance through a five-year-cycle, high-stakes school quality review process, using a set of benchmarks that articulate the criteria for high-performing schools.
- **Small and Nurturing.** Pilot Schools are small, personalized, and democratic, enrolling 500 students or fewer, enabling adults to know students well. Two schools enrolling more than 500 students are organized into multiple small academies. Every school places great emphasis on creating a nurturing school culture in which staff pay close attention to each student's learning needs.
- **Vision-Driven.** Every Pilot School has an articulated vision of successfully educating all of its students, with teaching and learning at the vision's core. Pilot Schools have the latitude to hire staff who are committed to fulfilling the school's vision.
- **Focused on Equity.** Pilot Schools embrace as a core belief the potential of every student to achieve academic success, regardless of his or her background and past educational experience. Pilot Schools are not selective. The Network strives to enroll students representative of the larger district.

Expansion of Pilot Schools Network

The number of Pilot Schools has increased considerably since they first were opened, when there were five Pilot Schools enrolling fewer than 900 students. Currently, the Network includes 19 Pilot Schools, two of which are also Horace Mann schools,[5] spanning grades preK–12 and serving approximately 5,900 students, or about 10% of the total Boston Public Schools (BPS) enrollment.

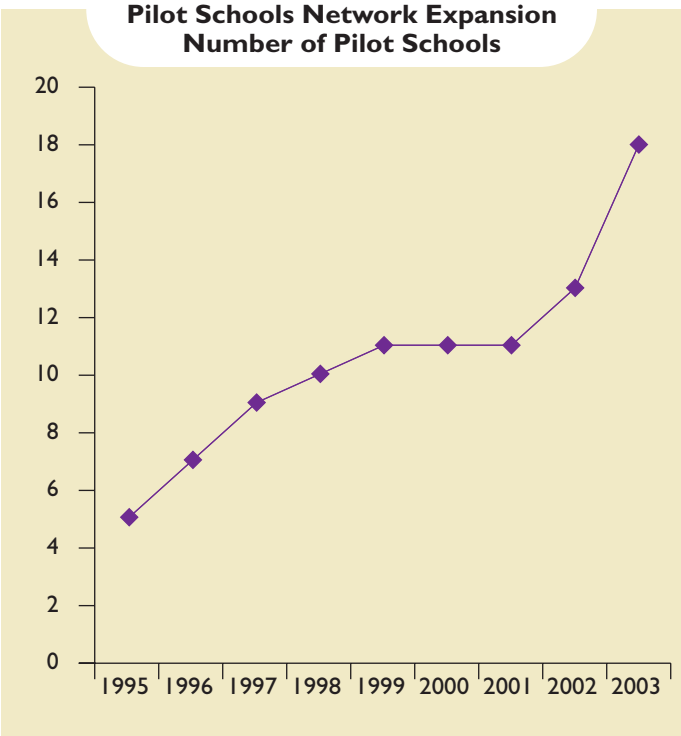
The table on page 7 lists each Pilot School, the grades it serves, its initial year of Pilot status, and how it became a Pilot School.

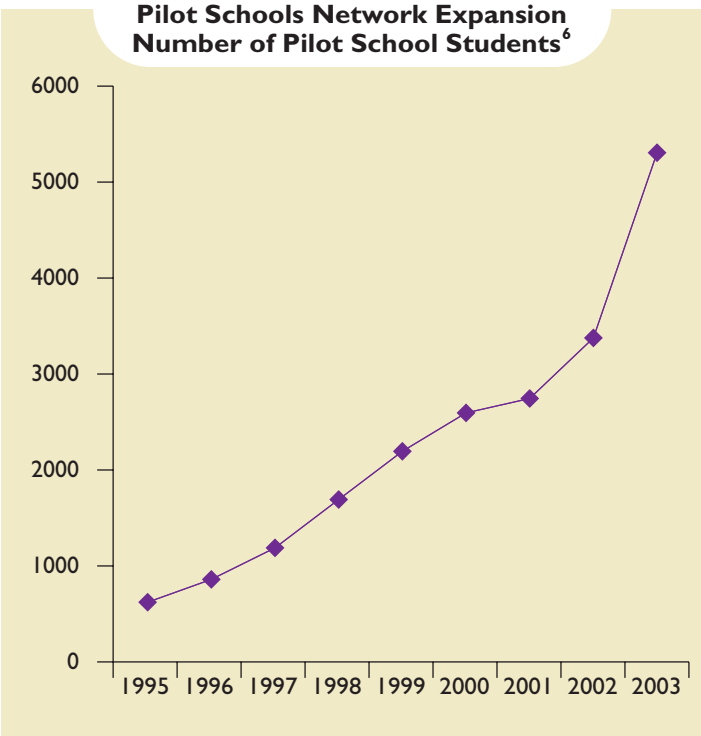
The graphs below reflect that, even in years in which new Pilot Schools did not open, enrollments increased, because there were schools adding one grade at a time.

The growth in the number of Pilot Schools and the schools' encouraging results have led to a great deal of interest in establishing more of these schools. In the fall of 2002, more than 30 regular BPS schools attended a grant orientation meeting sponsored by The Boston Foundation to learn more about the possibility of receiving seed grants from the foundation to explore the benefits of converting to Pilot status for their own school. Ultimately, 13 BPS schools received these planning grants, and five of the 13 schools voted to convert to Pilot status—a watershed moment for the Boston Public Schools.

Pilot Schools are

- Autonomous
- Accountable
- Small and Nurturing
- Vision-Driven
- Focused on Equity





5 The two Boston Horace Mann Charter Schools are also Pilot Schools. Horace Mann Charter Schools are granted autonomy by the state department of education while also remaining part of the district and the teachers union.

6 Data for this graph were downloaded from the National Center for Education Statistics (NCES) Common Core of Data (http://nces.ed.gov/ccd/).

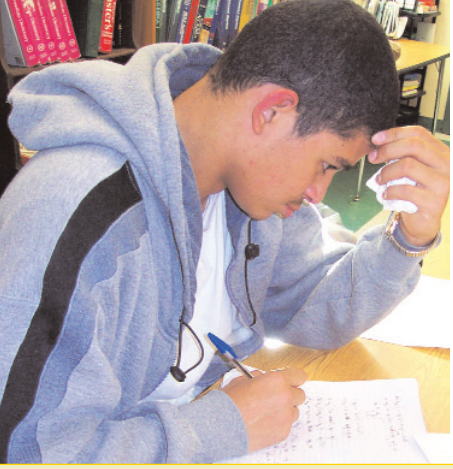
The Pilot Schools encompass a diversity of educational approaches tailored to meet particular student needs and interests. They include schools focused on the arts, technology, and leadership, serving students in the following grade levels: early childhood, K–8, elementary, middle, and high schools; and schools focused on the needs of older students who have not achieved success in mainstream schools. Pilot Schools offer strong choices to families. A 2003 CCE study found that high school students and their families choose Pilot Schools for their academic challenge, safe and caring environments, and specialty offerings (Doyle et al, 2003).

How Pilot Schools Fit into the National and Local School Reform Landscape

Public schools in the United States are at a critical juncture, with the No Child Left Behind (NCLB) Act placing an enormous amount of pressure on schools to improve student performance as measured by standardized tests. At the same time, a burgeoning small schools movement—supported in large part by the Bill & Melinda Gates Foundation—is focused on improving the achievement of low-income students and students of color, and particularly on closing gaps in achievement between these subgroups and white or more affluent students. Simultaneously, a national focus on providing families with greater choice in public education has given rise to charter schools and vouchers. These two strategies have gained momentum over the past decade, even as they generate a great deal of controversy due to their pressure on funding for public school districts.

The Boston Public Schools have taken on a national leadership role in urban school reform by creating the Pilot Schools, which offer choice, smallness, and accountability

The Boston Public Schools have taken on a national leadership role in urban school reform by creating the Pilot Schools, which offer choice, smallness, and accountability without draining resources from the public school system. The Pilot School strategy has contributed to the district in significant ways. The Pilot model of competency-based graduation was instrumental in leading to a new BPS graduation policy, in which every high school has the option to propose a unique course sequence and assessments for graduation that meet or exceed the district standards. More broadly, the Pilot autonomies have informed the creation of "Strategic Planning Schools" within the district. Any of these schools can seek autonomy from a district policy if the waiver will advance its teaching and learning agenda. Finally, the success of the Pilot high schools informed Superintendent Payzant's proposal to the school committee to convert four large, comprehensive BPS high schools to 13 small schools sharing space and resources. These new small schools have been granted limited autonomy over their budgets.



Because of their unique role as laboratories of educational innovation, it is important to understand how well the Pilot Schools are doing in comparison with other schools in the district.

Why Examine the Pilot Schools' Outcomes?

Critical examination of progress across a range of indicators is still rare in public education. Test scores alone do not offer a complete picture of a school's success. This report presents data which answer the following research questions:

1. How demographically representative of the Boston Public Schools are Pilot School students?
2. What are some unique characteristics of Pilot Schools that help them to organize for high-quality teaching and learning?
3. What are the Pilot School outcomes for student engagement indicators (as measured by attendance, out-of-school suspensions, district leavers, and in-district transfers)?
4. What are the Pilot School outcomes for student performance indicators (as measured by MCAS, grade-level retentions, college plans, and college enrollment)?

Because of their unique role as laboratories of educational innovation, it is important to understand how well the Pilot Schools are doing in comparison with other schools in the district. A rich picture emerges, one that will likely spark discussions at all levels of a community.

School Name	Grades Served in 2003–04	Initial Year of Pilot Status	How School Became a Pilot School
Elementary			
Baldwin Early Learning Center	K0 to 1	2003	converted
Samuel Mason School	K0 to 5	2003	converted
Lee Academy	NA[7]	2004	opened
Elementary-Middle			
Lyndon Elementary School	K to 8	1995	opened
Young Achievers	K to 8	1995	opened
Mission Hill School	K to 8	1997	opened
Orchard Gardens Pilot School	K to 8	2003	opened
Middle			
The Harbor School	6 to 8	1997	opened
Lilla G. Frederick Pilot Middle School	6 to 8	2003	opened
Middle-High			
Josiah Quincy Upper School	6 to 10[8]	1999	opened
High			
Fenway High School	9 to 12	1995	converted
Greater Egleston Community High School	ungraded	1996	converted
New Mission High School	9 to 12	1996	opened
Health Careers Academy (Horace Mann Charter)	9 to 12	1995	opened
Boston Arts Academy	9 to 12	1998	opened
Boston Day and Evening Academy[9] (Horace Mann Charter)	ungraded	1995	opened
Boston Community Leadership Academy	9 to 12	2002	converted
TechBoston Academy	9 to 10[10]	2002	opened
Another Course to College	9, 11, 12[11]	2003	converted

7 This school opened in 2004–05 with grades K0 and K1, is adding one grade per year, and will eventually be a K0–5 school. Because this paper reports on school year 2003–04 data, this school is excluded from the data analysis.

8 This school is adding one grade per year and is currently a 6–12 school.

9 This school was Boston Evening Academy until September 2004, when it added a day program and was renamed Boston Day and Evening Academy.

10 This school is adding one grade per year and is currently a 9–12 school.

11 This school began as an 11–12 school, added one grade per year, and is currently a 9–12 school.

Pilot School Student Demographics

> "When we went to your school for a field trip, I was amazed at what I saw. I saw no one in the hallways wandering around. Everyone was in the classrooms learning and getting an education. That is the type of school I want to get into."
>
> —Pilot high school applicant

This report contains data from 2003–04 on three school types within the Boston Public School district: Pilot, BPS[12], and Exam. The main purpose of this analysis is to understand how Pilot School student demographics and outcomes compare to those of students in BPS schools.[13] Exam schools select students based on prior academic achievement, while BPS and Pilot Schools do not. Therefore, Exam school results are presented as a reference point but are not discussed in depth.

Pilot School Students are Generally Representative of the District's Students

This section presents the demographics of Pilot Schools by five indicators to provide a portrait of the backgrounds and basic educational needs of the students in a school. These indicators also show whether proportionate numbers of students from each group are being represented across school types. As Pilot Schools are a subset of schools within a larger district, it is important to study enrollment patterns to ensure that Pilot Schools serve a population that is representative of the district.

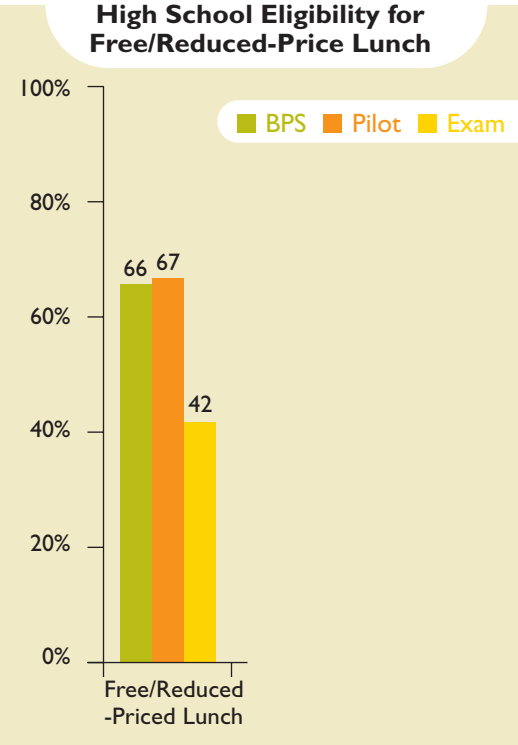
12 The BPS designation throughout this report includes all schools in the Boston Public Schools except for schools that have Pilot status and Exam schools.

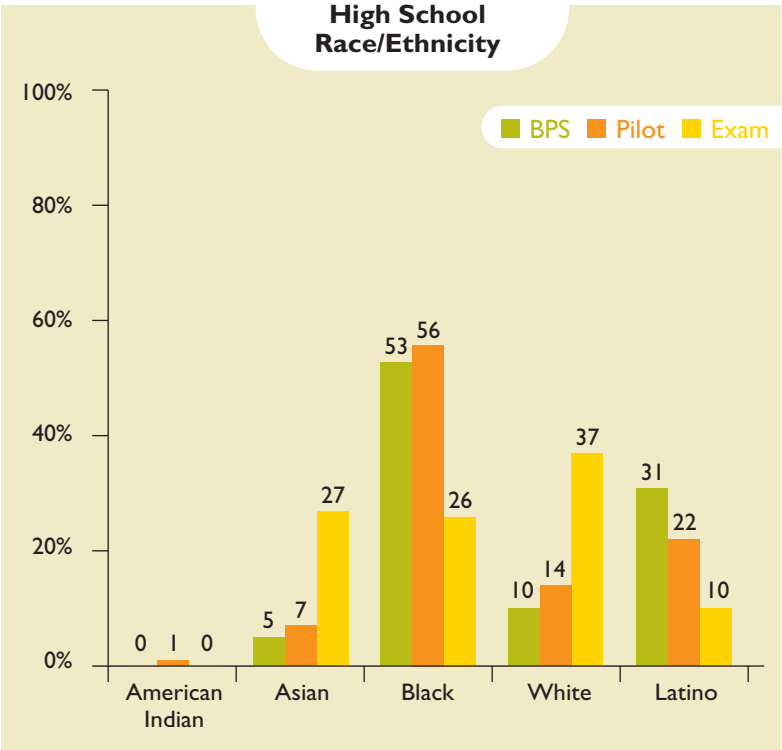
13 See Appendix A for methods.

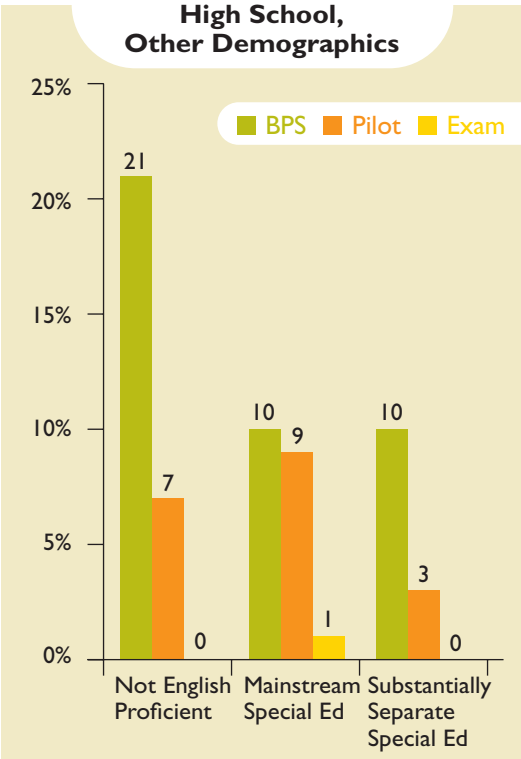
Pilot School Student Demographics

High Schools

Pilot high schools serve similar percentages of Black, White, Asian, and American Indian[14] students as compared to BPS high schools, excluding Exam schools. Pilots serve fewer Latino students than do BPS high schools. Pilot high schools serve similar percentages of students receiving free/reduced lunch and similar percentages of mainstream special education students as compared to BPS high schools. Pilot high schools serve fewer students who are not proficient in English. Pilot high schools serve fewer students who are classified as receiving substantially separate special education services. However, by the 2006–07 school year, Pilot high schools will serve a representative percentage of these students.





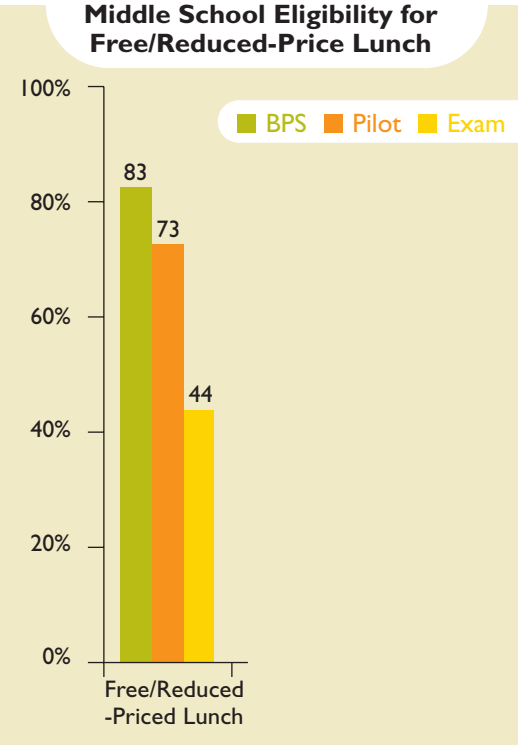


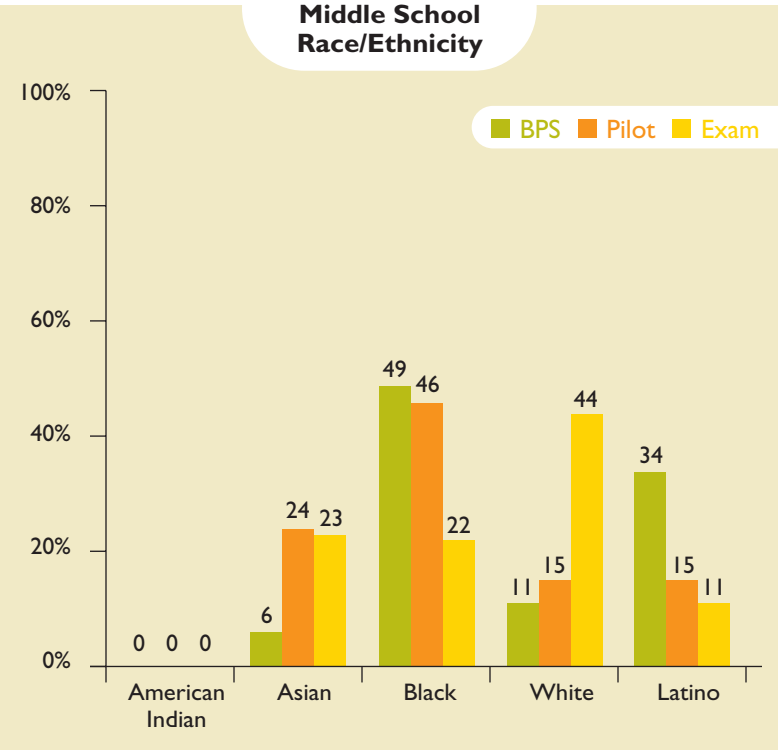
14 For simplicity, the race/ethnicity terminology used in this report is consistent with that used by the district and state, with the exception of students categorized as Hispanic, who will be referred to as Latino in this report.

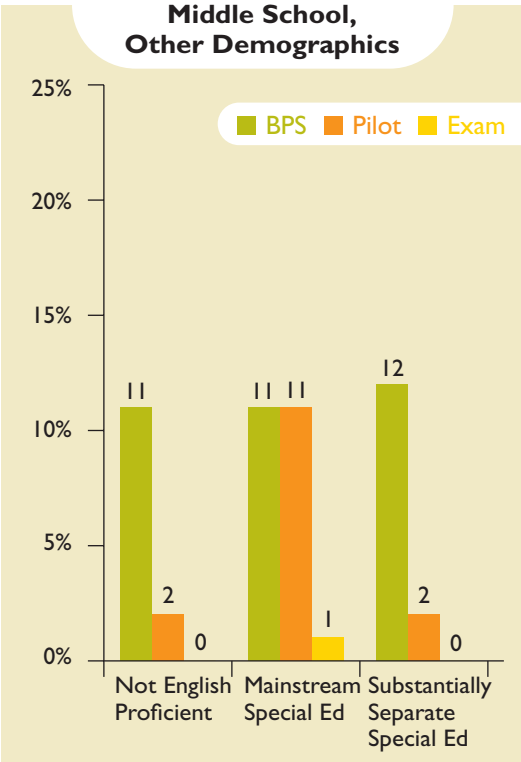
Pilot School Student Demographics

Middle Schools

Pilot middle schools serve a similar percentage of Black and White students as BPS middle schools. Pilot middle schools serve a higher percentage of Asian students and a lower percentage of Latino students than BPS middle schools.[15]







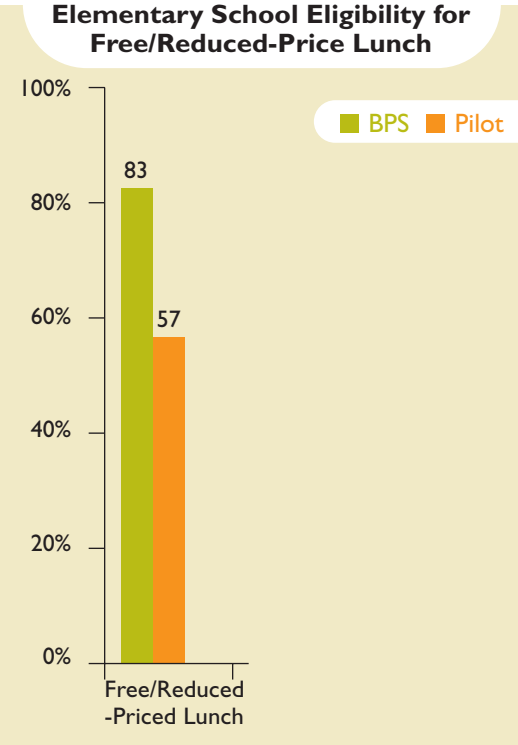
15 The high number of Asian students can be attributed to one school, the Josiah Quincy Upper School, which is located in Boston's Chinatown and has an enrollment that is 72% students of Asian descent.

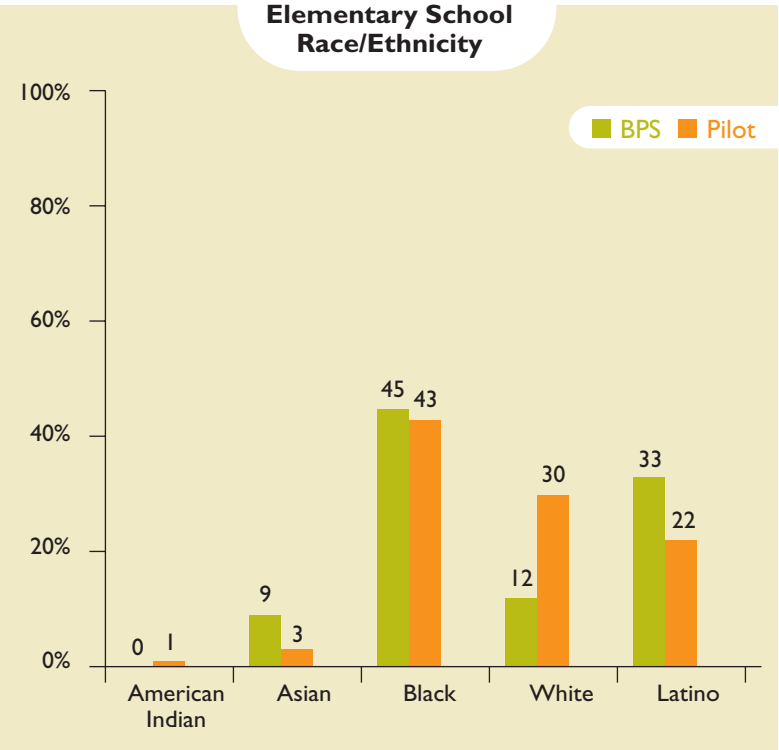
Pilot School Student Demographics

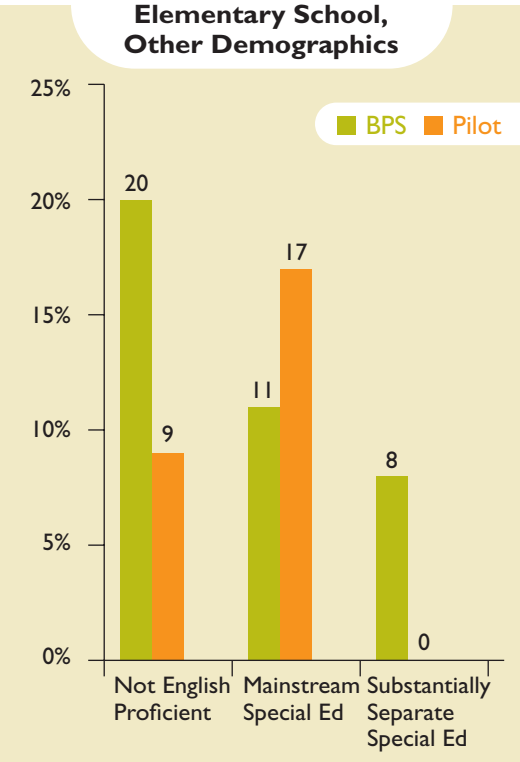
Elementary Schools

In comparison to BPS elementary schools, Pilot elementary schools serve similar percentages of Black and American Indian students. Pilot elementary schools serve a lower percentage of Asian and Latino students and 2.5 times the proportion of White students than BPS elementary schools. They serve a 55% greater proportion of mainstream special education students and a far smaller proportion of students who are not English proficient or are in substantially separate special education. Pilot elementary schools serve proportionately 31% fewer students eligible for free/reduced-price lunch than BPS elementary schools.

Further analysis of the elementary race and lunch-status demographic findings reveal that two of the five Pilot Schools serving the elementary level account for the higher percentage of White students and students who are not eligible for free/reduced-price lunch in Pilot elementary schools. One, the Lyndon School, has the highest percentage of White students of any elementary school in the district at 57%. Lyndon School and Mission Hill School rank second and fourth in the district for the lowest proportion of students eligible for free/reduced-price lunch at 39% and 45%, respectively.







Pilot School Students are Becoming More Representative of BPS Over Time

In the demographic analysis of the five indicators, on the whole Pilot high schools represent the overall student demographics of BPS. There are some differences in demographics at the middle level, and significant differences at the elementary level. In order to further investigate whether Pilots are moving closer to completely representative enrollment of the district population, the trends of Pilot School enrollment over three school years (2001–02, 2002–03, 2003–04) were studied.[16] At every level, Pilot Schools are moving in the direction of serving a population of students more representative of those in the BPS.

16 Data for each school year were analyzed as described in Appendix A: Methods, except that this analysis includes the two Pilot Schools that were newly opened in 2003–04.

Characteristics of Pilot Schools

Before reporting on Pilot School student engagement and performance, this section describes how Pilot Schools tailor their educational programs to the needs of students. With the goal of providing high-quality education for every student, the Pilot Schools use their autonomy to design and implement organizational structures that support effective instruction and nurturing cultures. The indicators that are shown in the tables below have each been linked with a positive school climate and/or student outcomes (US Department of Education, 2000; Lee & Smith, 2001; Cotton, 1995; Hawley Miles & Darling-Hammond, 1998). Pilot Schools incorporate many of these practices, including smaller class sizes, longer instructional periods, longer school days, more time for teacher collaboration, and more time for teacher professional development.

Due to each Pilot School's autonomy, there is variation across the schools for each indicator. The tables below show the average value across schools in each school level.

Without costing more, Pilot Schools have teachers who spend more of their time on professional development and collaboration and students who have more opportunities to develop caring relationships with adults.

Elementary School Characteristics

On average, Pilot elementary schools have smaller classes sizes than BPS elementary schools. Student and teacher days are longer, with students spending an average of just under one hour more and teachers spending just under two hours more in school each week. In contrast to BPS schools, Pilot School teachers appear to have significantly more time to collaborate with colleagues: almost three hours per week more than the minimum that is required for their counterparts in BPS schools. On average, Pilot elementary school teachers also participate in five more days of professional development per year.

Elementary Schools	Pilot Schools	Boston Public Schools
Average number of students seen by core academic teachers each day	20	24
Length of student school day (minutes)	370	360
Length of teacher school day, including after-school contracted faculty meeting time (minutes)	409	386
Minutes per week of professional collaboration time	216	48 (minimum)
Number of full professional development days	8	3

Other data analysis show that the regular-education teacher:student ratio is 1:16, and several schools structure their staffing so that teachers and students stay together for more than one year.

> "I find the smaller the classes are, the easier it is for me to concentrate on what I'm doing to stay ahead of the game and keep focused. That's the good thing about the school because it's pretty small."
> —Boston Arts Academy student

Middle School Characteristics

On average, Pilot middle schools have smaller class sizes than BPS middle schools and an average teacher:student ratio of 1:17, and core academic teachers see an average of 52 students per day. Student and teacher days are longer, with students spending an average of two and a half hours more and teachers spending three and a half hours more in school each week. Pilot middle school teachers also have about four hours of professional collaboration time per week; BPS middle school teachers are not required under contract to have weekly professional collaboration time. On average, Pilot middle school teachers also participate in five more days of professional development per year.

Middle Schools	Pilot Schools	Boston Public Schools
Average class size	20	28
Length of student school day (minutes)	400	370
Length of teacher school day, including after-school contracted faculty meeting time (minutes)	438	396
Minutes per week of professional collaboration time	248	no minimum
Number of full professional development days	8	3

In addition to having more time for teachers to collaborate and having longer student days, all Pilot middle schools have advisories, a structure that enables teachers and students to develop more personalized relationships. Students spend, on average, two hours per week in advisory. Many Pilot middle schools also offer long instructional periods, with all but one offering instructional periods longer than 60 minutes.

High School Characteristics

On average, Pilot high schools have smaller class sizes than BPS high schools and an average teacher:student ratio of 1:14, and core academic teachers see an average of 64 students per day in core classes, advisory, and electives. Students spend an average of one hour more per week in school than their BPS counterparts. Teacher days are also longer, with teachers spending an average of three and two thirds hours more in school each week. On average, Pilot high school teachers have almost five hours of professional collaboration time per week, in contrast to teachers at BPS high schools, which are not required under contract to have weekly professional collaboration time. On average, Pilot high school teachers also participate in three more days of professional development per year.

High Schools	Pilot Schools	Boston Public Schools
Average 9th-grade English class size	18	28 (all classes)
Length of student school day (minutes)	392[17]	380
Length of teacher school day, including after-school contracted faculty meeting time (minutes)	450	406
Minutes per week of professional collaboration time	285	no minimum
Number of full professional development days	6	3

17 This calculation excludes one outlier school. Boston Day and Evening Academy students attend school four days a week, for an average of 300 minutes per day because they are older students who have other responsibilities such as parenting and work.

In addition to having more time for teachers to collaborate and having longer student days, eight out of ten Pilot high schools implement advisories, a structure that enables teachers and students to develop more personalized relationships. In the schools with advisories, students spend an average of 108 minutes per week in advisory. Many Pilot high schools also offer long instructional periods, with seven out of the ten schools offering instructional periods of 60 minutes or more.

Summary

Pilot Schools at all grade levels use their autonomies to organize themselves for high-quality instruction. Without costing more than BPS schools, Pilot Schools have smaller class sizes, lower student-teacher loads, and longer instructional periods. Teachers engage in more professional development and collaboration. Students have more opportunities to develop caring relationships with adults through advisories and smaller classes. While each school's vision is different, all Pilot Schools have used their autonomies to create structures for greater personalization for students.

Pilot School Student Engagement and Performance

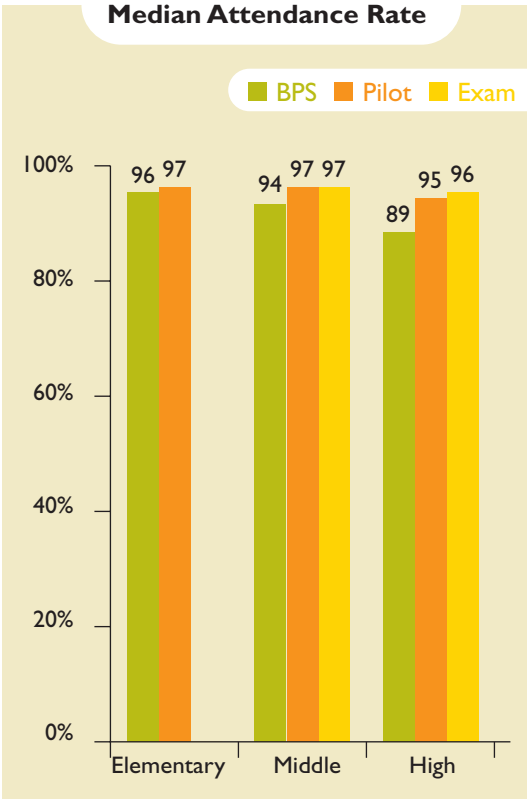
Indicators of School Engagement

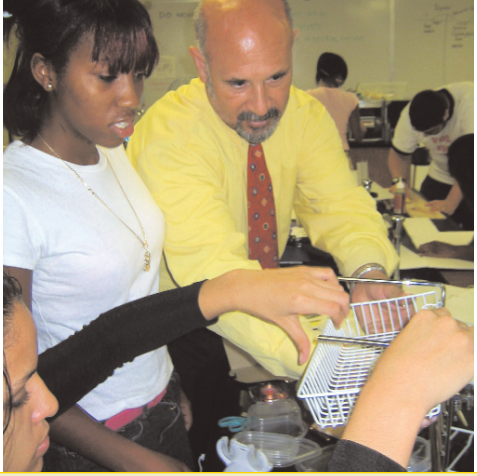
The engagement and performance outcomes include a number of indicators, because no one indicator can accurately depict student or school success. This section contains outcomes in four areas: attendance, discipline, district leavers, and in-district transfers, each representing an aspect of student engagement. They are indicators that are collected at the district, state, and federal levels. High attendance rates, low discipline rates, and low mobility rates also indicate a positive, productive school climate.

Pilot School outcomes in these areas are better than the BPS averages. With the exception of in-district transfers, differences between Pilot Schools and BPS schools become larger from the elementary to the high school level; Pilot high school averages for all four indicators are better than BPS averages.

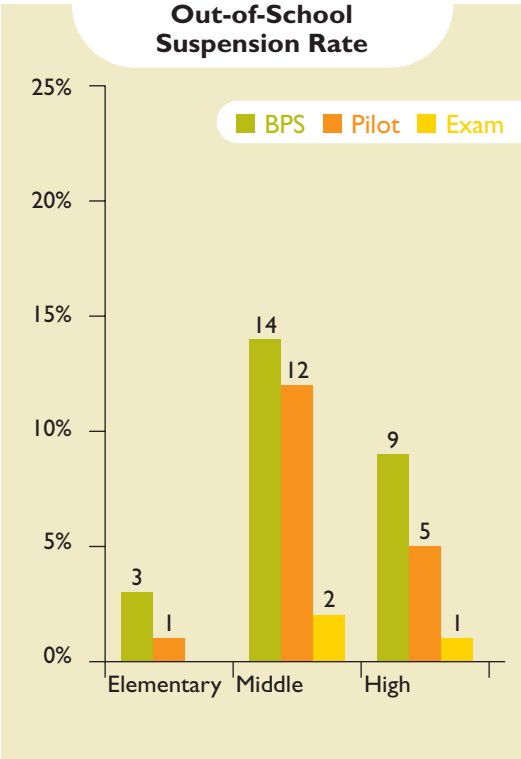
Attendance

Attendance is an indicator of student engagement. High attendance rates are linked to positive student and school performance and are an indicator of school effectiveness (Crone et al, 1993; University of the State of New York, 1992). Student attendance is correlated with overall success in completing school. At the high school level, low attendance has been shown to be predictive of dropping out (Binkley & Hooper, 1989; Bryk & Thum, 1989; Sween, 1987).





The differences in attendance rates between Pilots and BPS translate into Pilot students attending school, on average, almost two more days a year at the elementary level, just over a week more at the middle school level, and just over two weeks more at the high school level.



Pilot School students at each level have a median attendance rate that is higher than the BPS student rate, with the distance between the rates for the two types of schools increasing with each school level. While the median attendance rates are similar for BPS and Pilot elementary schools, Pilot School attendance rates are slightly higher at the middle school level and significantly higher at the high school level. Given that each percentage point in the attendance rate equals 1.8 days of school,[18] the differences in the attendance rates translate into Pilot School students attending school, on average, almost two more days a year at the elementary level, just over a week more at the middle school level, and just over two weeks more at the high school level.

Out-of-School Suspensions

The out-of-school suspension rate is an indicator of individual student engagement as well as of the culture of a school community. High-functioning school communities have lower suspensions rates. Fewer suspensions indicate fewer disruptions to learning in the school day and less instructional time lost (Cotton, 1990). Research suggests that out-of-school suspensions are not a desirable approach to discipline (Cotton, 1995; Pinnell, 1985). A low rate may indicate better classroom management and a more integrated approach to dealing with inappropriate behavior in a school.

18 Based on a 180-day school year.

As shown in this graph, Pilot elementary schools have a suspension rate that is one third that of BPS schools; Pilot middle schools have suspension rates that are slightly lower than BPS schools; and Pilot high schools have a rate that is about one half the rate of BPS schools.

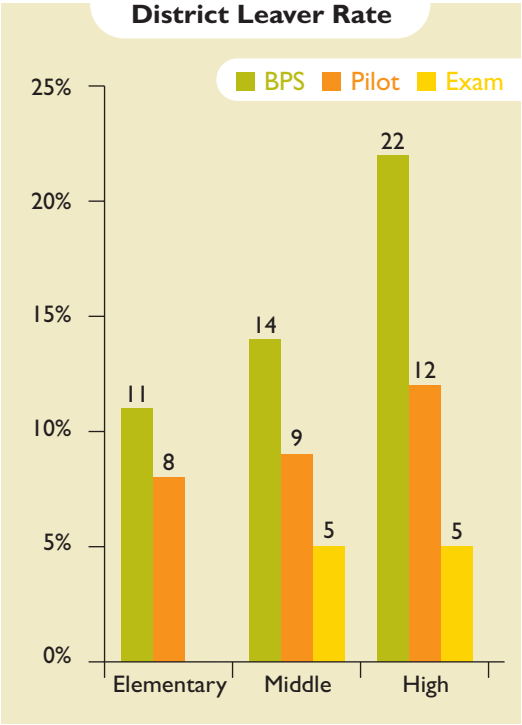
District Leavers and In-District Transfers

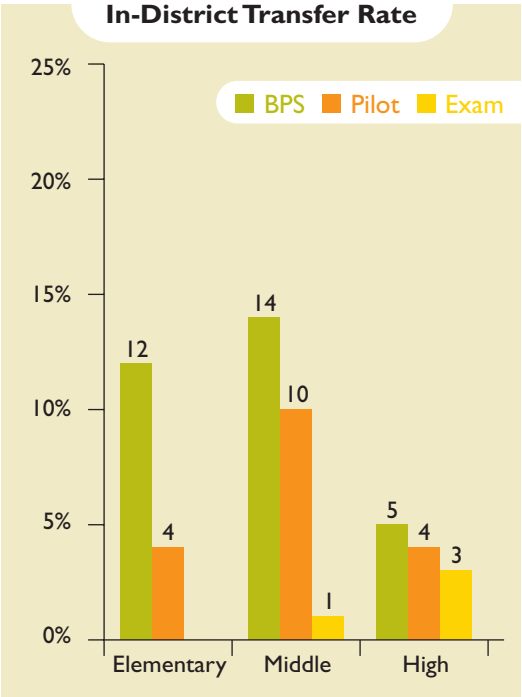
While student background characteristics can be important determinants of a school's mobility rate, up to half the variability of high school turnover rates can be attributed to school characteristics, including student:teacher ratio, quality of teachers, class size, and average daily attendance (Rumberger & Thomas, 2000). High student mobility has been "highly associated with a low level of student performance" at all levels (University of the State of New York, 1992). Therefore school characteristics influence mobility rate, and a high mobility rate is not a desirable outcome.

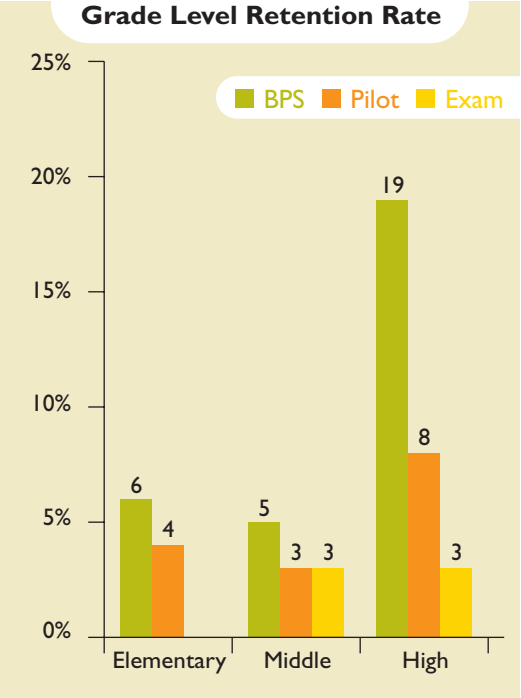
The district leaver indicator includes students who transferred out of the district or dropped out of school. The in-district transfer rate includes all students who transferred from one school in the district to another for any reason other than completing the highest grade available at a given school. The district leaver and in-district transfer rates speak to the holding power of a school or the stability of the school population. Taken together, they serve as proxies for a school's mobility rate.

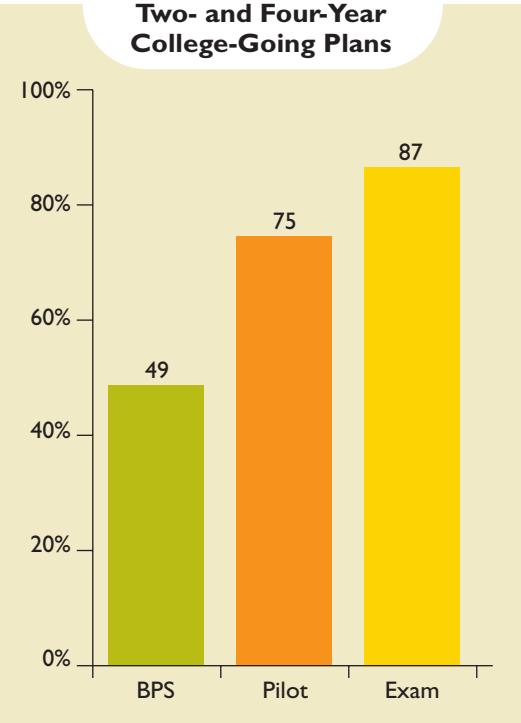
As shown in the graph, on average, Pilot Schools have a lower district leaver rate than the BPS. The distance between Pilot Schools and the district in the proportion of students who left school increased with each subsequent school level. At the elementary school level, the proportion of Pilot students who left their school is 27% lower than in BPS, while at the high school level it is 45% lower.

The distance between BPS and Pilot Schools for the in-district transfer rate is greatest at the elementary school level. The Pilot School in-district transfer rate is one third that of BPS. The Pilot middle school rate is 29% lower than the BPS rate, and the Pilot high school rate is 20% lower than the BPS rate.









Indicators of Student Performance

The four indicators in this section—grade level retention, post-secondary education plans, post-secondary education participation, and MCAS scores—are measures of student performance. They provide a picture of how well schools are helping students to progress on grade level, to meet state standards, and to enroll in post-secondary education. As a whole, Pilot School students are performing better than the BPS average on all of the four performance indicators. As with the engagement indicators, the largest differences between the two types of schools are at the high school level.

Grade Level Retention

Grade level retention is not only a measure of the educational performance of students in a school, but it also predicts future academic achievement. There is a strong, positive correlation between grade level retentions and an increase in the risk of a student's dropping out of school (Roderick, 1994; Goldschmidt & Wang, 1999). The grade level retentions that are reported in the table are the percentage of students in each school level and school type who were retained in grade from the 2002–03 to 2003–04 school years.

At the elementary level, Pilot Schools have a 33% lower grade level retention rate and at the middle level, Pilot Schools have a 40% lower grade level retention rate than the BPS schools.

As is the case with most of the engagement indicators, the difference between Pilot Schools and BPS schools in grade level retention is much greater at the high school level than at the elementary and middle school levels. Pilot high schools retained students at a rate that is less than half that of BPS high schools.

Two- and Four-Year College-Going Plans

The plans of high school graduates of both Pilot and BPS high schools are self-reported in district-administered exit surveys.[19] They are an indication of what a student plans to do after graduation from high school and include options of two- and four-year colleges, other post-secondary education, work, military, and other.

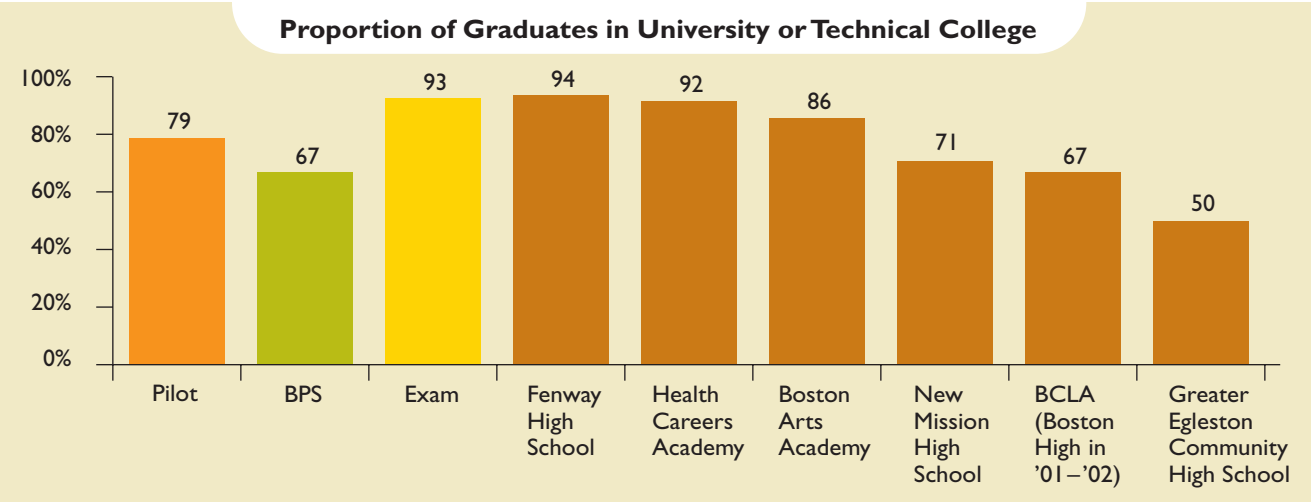
On average, 75% of graduates from each Pilot School planned to enroll in two- or four-year colleges, as compared with 49% of BPS graduates from each school.

19 Graduation rates are not reported in this study. However, graduation rates are an important indicator of school success. Ideally, the calculation of a school's graduation rate should follow a cohort of students over their four years and be a measure of the proportion of students who graduate "on time" after four years. Data that affect the graduation rate include transfers into and out of a school, students who formally drop out, and those who drop out but are not recorded by the district. The data necessary to calculate cohort graduation rates have not been available to date.

Post-secondary Education Participation One Year after Graduation

In today's economy, a high school diploma is no longer sufficient to ensure future financial independence. Preparing students for the opportunity to attend post-secondary education is a major goal of all high schools. One measure of success for any high school is the number of its graduates who are in post-secondary education during the spring after graduation. The numbers reported below represent the percentages of graduates who were in post-secondary education—including four-year colleges, two-year colleges, and technical or vocational programs—one year after graduation.[20]

The graph shows the proportion of graduates in post-secondary education one year after graduation by school type and by Pilot School. The proportion of Pilot School graduates enrolled in post-secondary education one year after graduation is 18% higher than that for BPS graduates. Five out of six Pilot high schools are at or above the BPS average. The Pilot high school with the lowest proportion of college enrollees is Greater Egleston Community High School, a specialized school developed with a mission of serving older high school students and students who have dropped out of other schools. The school with the same average as BPS is Boston Community Leadership Academy, a new conversion Pilot School whose 2003 graduates experienced only the transition year to Pilot status.



Standardized Test Results

The Massachusetts Comprehensive Assessment System (MCAS) exams are criterion-referenced tests administered by subject to students across the state. The MCAS is used as one measure of student performance. It is a high-stakes test at the tenth grade; students must pass the tenth-grade exams in order to graduate from high school.

This study examines all tests administered for reading, English/Language Arts (ELA), and mathematics in 2004. It analyzes the results from each test

20 Note that although this data was gathered in spring 2004, it is based on the class of 2003, which is the school year prior to the school year for most of the data in this report.

using two criteria: percent achieving advanced/proficient status and percent passing. Advanced/proficient equals the proportion of students at either of those achievement levels, and passing equals the proportion of students in the advanced, proficient, and needs improvement categories. The two categories are distinguished from each other because they convey different, important information—proficiency and pass rates.

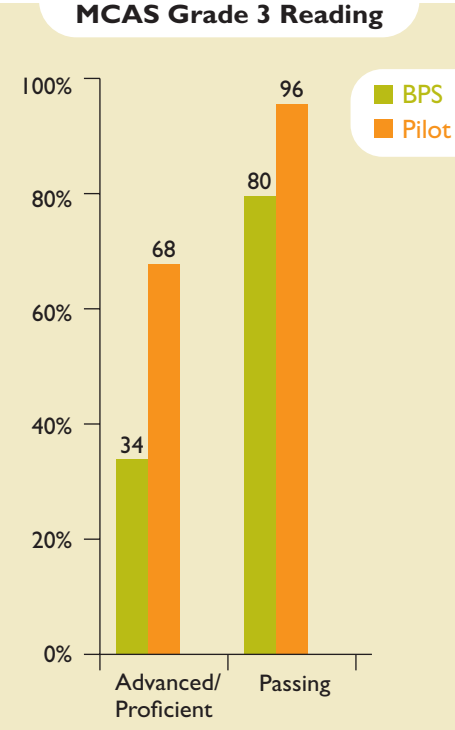
Pilot School students outperformed BPS school students at all grade levels in all tests. As a whole, the proportion of Pilot School students in the advanced/proficient categories ranged from 10 to 34 percentage points higher than BPS students. The proportion of Pilot School students passing each exam ranged from 3 to 27 percentage points higher than BPS students.

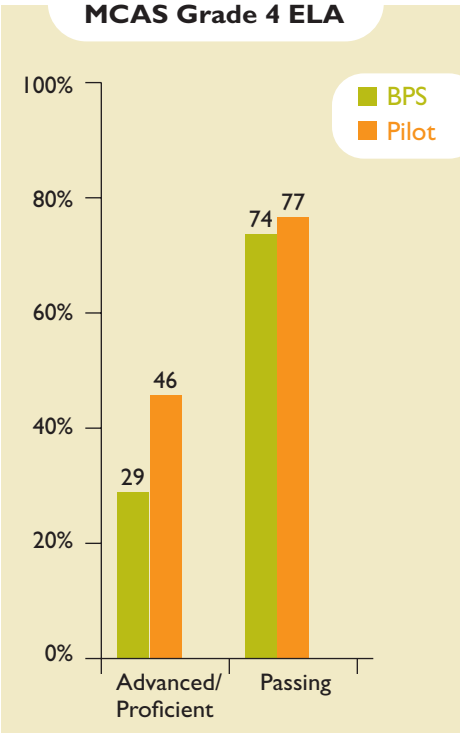
Elementary School MCAS

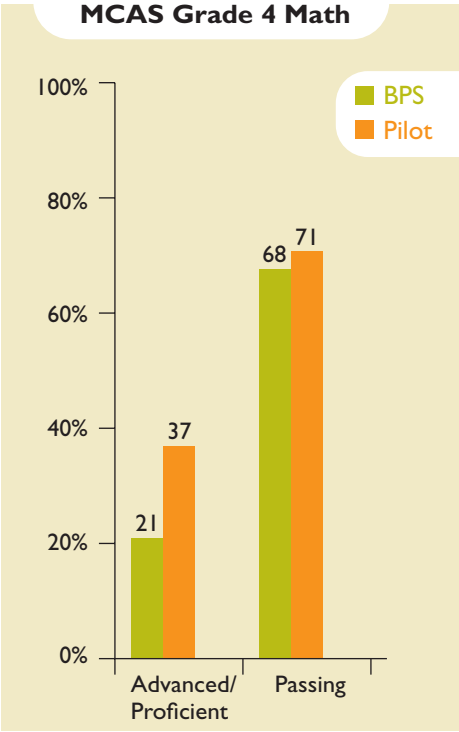
There are three elementary level tests: third-grade reading, fourth-grade ELA, and fourth-grade math.

In third-grade reading, as a proportion, twice as many Pilot School students placed in the advanced/proficient category as BPS students.[21] The proportion of students in the passing category was 20% higher for Pilot Schools than for BPS schools.

At the fourth-grade level, the proportion of Pilot School students passing the exam was slightly higher than for BPS students for both the ELA and math exams. The proportion of students scoring in the advanced/proficient categories was 59% higher in ELA and 76% higher in math.







21 Across the third grade, there were no students scoring in the advanced category.

Middle School MCAS

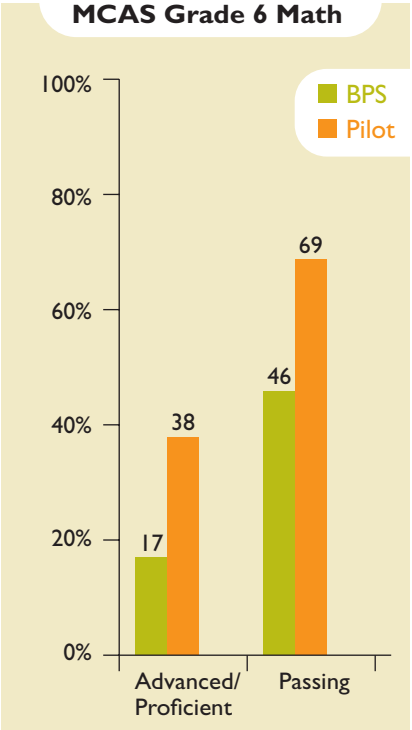
The three middle school level MCAS exams are: sixth-grade math, seventh-grade ELA, and eighth-grade math. As at the elementary school level, the middle school level test results show that Pilot School students achieved a higher percentage than BPS students in both the advanced/proficient and passing categories.

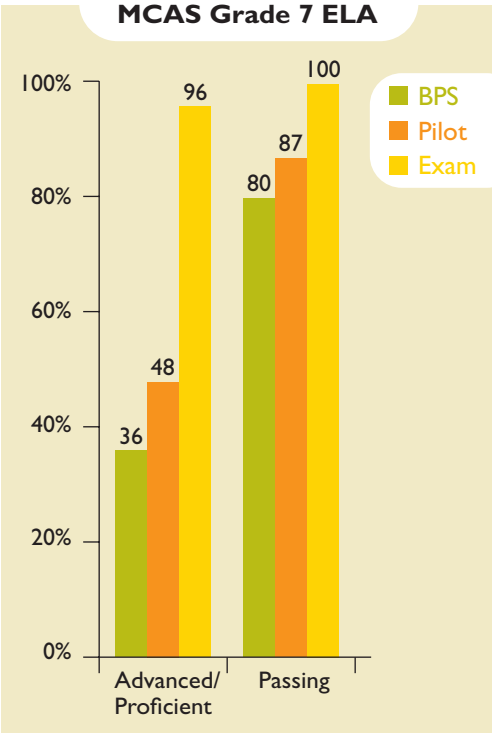
In the sixth-grade math test, Pilot School students scored at the advanced/proficient level at a rate more than twice that of BPS students. Pilot School students scored in the passing category at a rate that is 50% higher than BPS students.

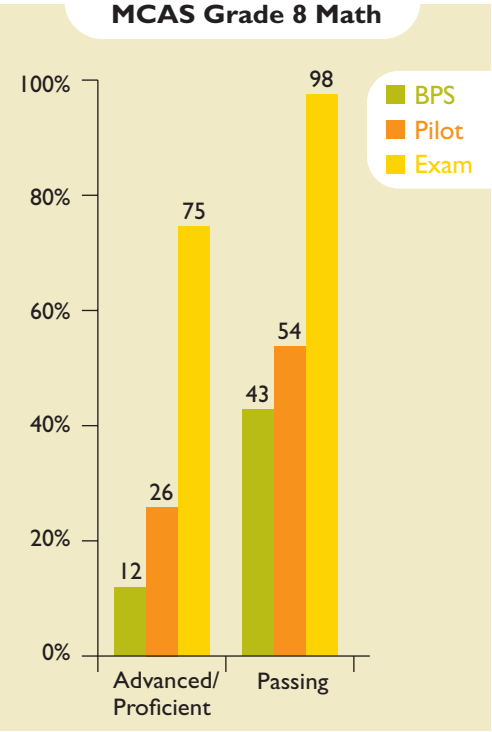
In the seventh-grade ELA exam, Pilot School students scored in the advanced/proficient and passing categories at a higher rate than BPS students. Seventh-grade Pilot School students performed in the advanced/proficient categories at a rate that is 33% higher than for BPS students. The Pilot School rate of passing was 9% higher than for BPS.[22]

At the eighth-grade level, the difference between Pilot School and BPS student performance is similar to that in the seventh grade. The overall performance of each group is lower at the eighth grade; fewer than two thirds of the students from each school type passed the exam. Pilot School students scored in the advanced/proficient category at a rate more than twice that for BPS students. Pilot School students also scored in the passing category at a rate 26% higher than BPS students.

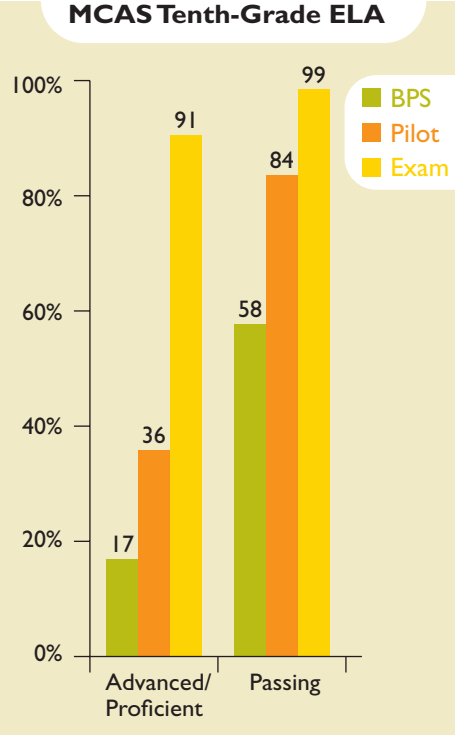
> "When we went to your school for a field trip, I was amazed at what I saw. I saw no one in the hallways wandering around. Everyone was in the classrooms learning and getting an education. That is the type of school I want to get into."
>
> —Pilot high school applicant

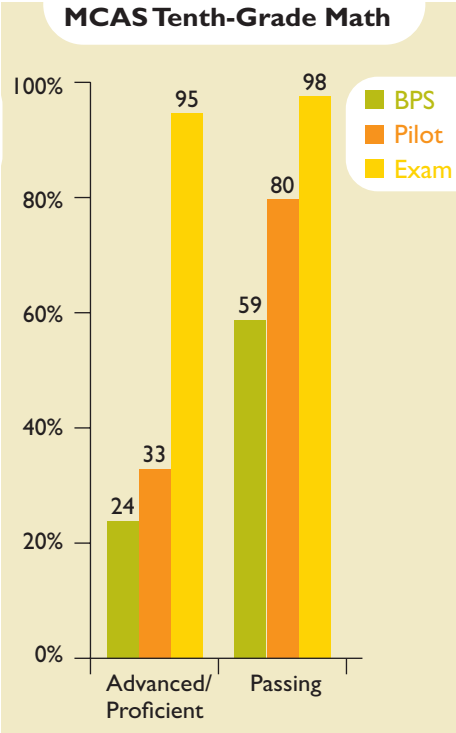






22 Exam schools serve grades 7–12 and enroll students based on exam scores and prior academic achievement. Their MCAS results are presented but not discussed further due to the exclusive nature of their admissions process.





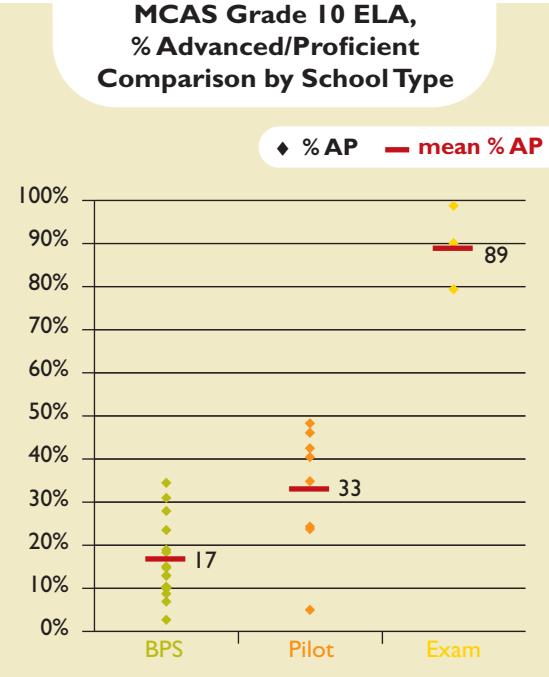
High School MCAS

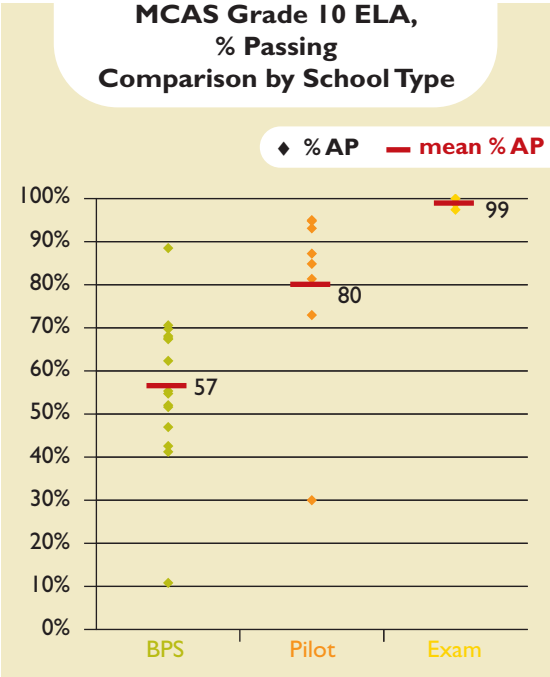
At the high school level, MCAS is a high-stakes test. Students must pass both the tenth-grade ELA and math tests in order to graduate. If necessary, students are given more than one opportunity to pass each exam.

Tenth-grade analysis by student

Pilot School students pass the tenth-grade ELA exam at a rate that is substantially higher than that for BPS students. While in 2003–04 58% of BPS students passed the exam and qualified for a diploma, 84% of Pilot School students passed—a 45% difference. As a proportion, more than twice as many Pilot School students were in the advanced/proficient category as BPS students.

Pilot School students scored in the advanced/proficient categories at a rate higher than BPS students for the tenth-grade MCAS math exam as well. Pilot School students passed at a rate that was 36% higher than BPS students and scored in the advanced/proficient category at a rate 38% higher than BPS students.





Tenth-grade analysis by school

In addition to student-level analysis, the tenth-grade MCAS data was also analyzed at the school level. The results of the school-level analysis are presented in scatterplot graphs.

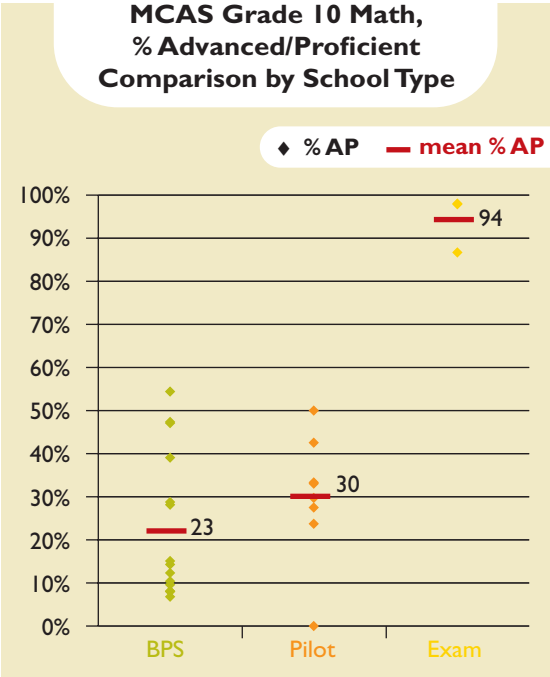
The four scatterplot graphs show tenth-grade math and ELA exam results by school.[23] There are two graphs for each exam, one for advanced/proficient scoring levels and one for passing level. Each scatterplot shows two types of data: each dot represents the proportion of students in one school who were in either the advanced/proficient or passing category (depending on the graph), and each colored bar represents the average across all schools within that school type. For example, the tenth-grade MCAS ELA advanced/proficient graph shows that 40% to 50% of students at four Pilot high schools scored in the advanced/proficient categories. Across all Pilot Schools, an average of 33% of students at each Pilot School scored in the advanced/proficient category, which is almost twice the rate for BPS schools. In fact, the overall Pilot School average is greater than the averages of all but one BPS school in this category.

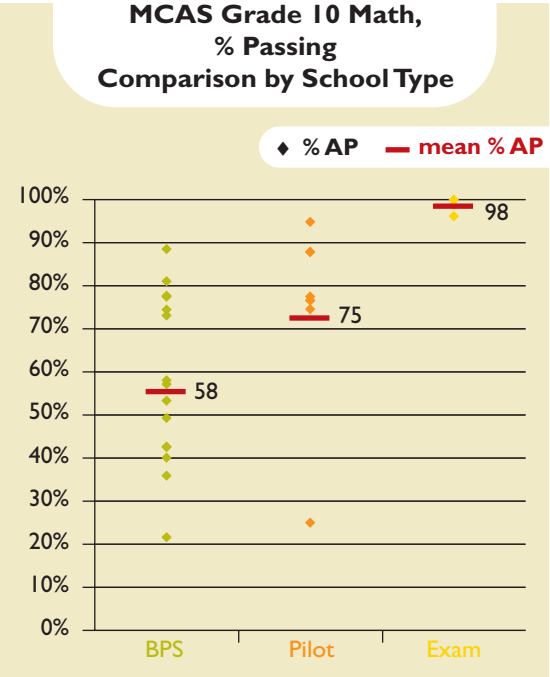
On average, 80% of students at each Pilot School and 57% of students at each BPS school passed the tenth-grade ELA exam. All but one Pilot high school posted a passing rate greater than all but one of the BPS high schools.

On average, 30% of students at each Pilot School and 23% of students at each BPS school scored in the advanced/proficient category for the tenth-grade math exam; the Pilot School rate is 30% higher than that for BPS schools.

On average, 75% of students at each Pilot School and 58% of students at each BPS school passed the tenth-grade math exam. The Pilot School average pass rate was 29% higher than the BPS average pass rate.

> "To graduate, you have to take a college course. It's making it easier for you so when you leave high school and you really have to do full days of college courses, you've already been in a college class so you kind of have an outlook on what's going to go on in class, what kind of work you're going to be doing. You're just getting a feel of college life before you're even there."
>
> —Greater Egleston Community High School student





23 Another Course to College and Boston Adult Academy are excluded from the school-level analysis because both had fewer than 20 students taking each test.

Conclusions

The findings in this report show that Boston Pilot School students are faring well on a wide range of indicators of engagement and performance. The data confirm previous reports and demonstrate consistently positive findings for Pilot School students for the years 1997–2004 (CCE,250 2001a; CCE, 2004a). Taken together, the Pilot School results strongly suggest that personalized, autonomous schools are able to create nurturing learning environments in which students achieve academically.

Families have chosen Pilot Schools in increasing numbers, indicating a demand for safe, caring, academically excellent schools. The Pilot Schools Network has expanded in its decade of existence from 5 schools in 1995 to its current 19 schools, serving approximately 10% of the BPS student population. The demand for these small, autonomous schools has increased, as demonstrated by full enrollments and the number of traditional BPS schools interested in learning more about becoming Pilot Schools. The wide variety of Pilot Schools—distinguished by mission, structure, instructional approach, and target population—provides Boston families with increased choices. Grade configurations range from the early childhood, elementary, middle, and high schools to those spanning two levels (such as K–8 and 6–12 schools). Curricula offered span a range of foci, including social justice, technology, health professions, and the arts. When families are offered a choice of schools from which to match personal interests and strengths, they are better able to find schools in which their students will be highly engaged and can achieve academically.

The Pilot School results strongly suggest that personalized, autonomous schools are able to create nurturing learning environments in which students achieve academically.

Pilot Schools do not select students based on prior academic achievement or testing. This policy is in contrast to Exam schools, which are selective by entrance exam results and prior academic performance. At the high school level, Pilot Schools serve students representative of the district in every category except students not proficient in English and students receiving substantially separate special education services. However, Pilot Schools are serving an increasingly representative percentage of students in this latter category.

At the elementary and middle school levels, Pilot Schools are part of the district's controlled-choice student assignment system. Eight of the ten schools serving elementary and middle grades follow the district assignment process by zone, and the other two are K–8 citywide schools, drawing from residents across Boston. At both the elementary and middle school levels, Pilot Schools closely represent the district in the proportion of both students not proficient in English and students in mainstream special education. As with the high schools, elementary and middle Pilot Schools have a goal of equitable enrollment by 2006 for students receiving substantially separate special education services.

One challenge that has concerned the Network is that Pilot Schools have historically served fewer students of color and low-income students at the elementary level (CCE, 2001a; CCE, 2004a). As the Network expands and matures, Pilot Schools are moving toward representing similar proportions of students by every indicator.

On indicators of student engagement, Pilot School student outcomes are notable. This report has focused on four indicators of student engagement, all of which are predictive of academic achievement. The promising outcomes in Pilot Schools include:

- The median attendance rate was higher in Pilot Schools at all levels.
- The out-of-school suspension rate was lower in Pilot Schools at all levels. In particular, Pilot Schools showed proportionately one third of the out-of-school suspensions of BPS schools at the elementary level and half the suspensions at the high school level.
- The district leaver rate was substantially lower in Pilot Schools at all levels.
- The in-district transfer rate was lower in Pilot Schools at all levels.

Pilot School students are performing well academically and better than the BPS average. This report focused on four indicators of student performance: grade level retention, college-going plans, college enrollment, and MCAS scores. On every indicator, Pilot Schools outpaced the BPS average.

- Grade level retentions in Pilot Schools were lower than in BPS schools at every level. BPS high schools retained students in grade at over twice the rate of Pilot high schools. Given the correlation between grade level retention and high school dropout rates, this is an important difference.
- Pilot high school graduates enroll in college at a rate that is 18% higher than BPS high school graduates.
- Pilot Schools surpassed BPS performance on every MCAS exam at every grade level tested.
- As a proportion, significantly more Pilot School students scored in the advanced/proficient categories than BPS students for every test.

Pilot Schools use their autonomy to create conditions for high-quality teaching and learning. Previously, CCE has documented evidence of effective Pilot School curriculum and assessment approaches, for example, multiple performance-based assessments that help to determine a student's promotion and graduation status (CCE, 2004b). The Pilot Schools Network is explicit about the central role of improving teaching and learning in creating and sustaining successful schools.[24] The data on school characteristics and student outcomes in this report demonstrate that Pilot Schools use their autonomy to create longer blocks of learning time, low student-teacher ratios, and other structures that support high expectations and achievement. They have created a more personalized learning environment through their scheduling and staffing autonomy. Pilot Schools emphasize time for faculty collaboration and planning—a critical building block to improving and maintaining a school's culture and performance.

24 See Appendix D for Network vision and principles.

Implications for Other Schools and Districts

The Boston Pilot Schools are the product of an innovative partnership between the Boston Public Schools and the Boston Teachers Union. Pilot Schools are the only network of in-district schools in the nation which, by virtue of a teachers union contract, have charter-like autonomies. While there are many singleton high performing schools in public school districts, they lack the strength that comes from the cross-school collaboration, professional development, and advocacy that Pilot Schools have. The Pilot Schools Network focuses simultaneously on the needs of each school and on developing the external supports necessary for all to succeed. It keeps teaching and learning at the center while advocating for systemic change. The following implications are based on the success of Pilot Schools documented in this report.

Pilot Schools serve their students well because they have autonomy along with increased accountability. The Pilot autonomies enable schools to use resources flexibly for increased personalization and improved outcomes. Pilot Schools' structure, culture, and instruction are distinct from those of many district schools because autonomy allows schools to organize in a fundamentally different way. The school characteristics data presented in this report show that Pilot Schools are using their budget, staffing, and scheduling autonomy creatively and flexibly.

- Pilot Schools structure themselves for increased personalization among students, among teachers, and between teachers and students. Structural innovations include small class sizes, low student:teacher ratios, longer

instructional periods, looping or multiage groupings in classrooms, and student advisories.

- While Pilot Schools are diverse in mission and culture, they share a commitment to collaboration and inquiry at all levels. Staff have more professional development time, more time to reflect together on student work and teacher practice, and greater decision-making authority over the content of their professional collaborative time.
- Through their curriculum and assessment autonomy, Pilot Schools' instructional approaches are designed to meet student needs. Pilot School students spend more time in school and in core academic classes. There are increased professional development opportunities for teachers and longer instructional blocks. Pilot Schools are anchored by performance-based assessments for promotion and graduation, which raise the stakes for students, deprivatize curriculum and instruction for teachers, and involve community members to give the assessments increased credibility and a sense of purpose (CCE, 2004b).

Pilot autonomy comes with accompanying high expectations. Pilot Schools undertake a five-year-cycle of school quality reviews, using a set of benchmarks that articulate the criteria for high-performing schools. Along with student outcomes, each school is assessed for vision, leadership and governance, teaching and learning, professional development, and family and community engagement.

While autonomy is necessary, school faculties must have the vision and ability to implement the autonomies for improving the school's structure, culture, and instruction.

The Pilot Schools Network focuses on the needs of each school, and on developing the external supports necessary for all to succeed. It keeps teaching and learning at the center while advocating for systemic change.

Autonomy and small size are critical for creating a high-performing school. Research suggests that schools able to create environments in which students are well known to their teachers and in which teachers have adequate time to collaborate are more successful in meeting their students' needs (Hawley Miles and Darling-Hammond, 1998; Newmann, 1996). Pilot Schools are better able to create these personalized and collaborative cultures through use of their autonomy and small size—all but two Pilot Schools have 500 students or fewer, and the two larger schools are broken down into smaller academies.

Research shows that, academically, students in small schools do as well as, and often better than, those in large schools (Cotton, 1995). Student attitudes are more positive, engagement is higher, and access to learning opportunities is greater. Small schools are also more cost-effective, based on cost-per-graduate (Stiefel et al, 2000).

While autonomy and small size are critical elements of the Pilot model, the two newest Pilot Schools opened with a different set of conditions. Each school opened with full enrollments of 700, a size that far exceeded enrollments in all other Pilot Schools. In addition, due to opening in a year with double-digit budget cuts, each school had over 25% of their staff involuntarily assigned to the school in the first year, severely limiting their staffing autonomy. The schools did not have control over some aspects of student assignment and programming. As a result, both schools had understandably low engagement and performance outcomes in their first year.[25]

Future new start-up Pilot Schools approved by the district and teachers union should be small, should roll out grade by grade, and should be afforded the full set of autonomies in the start-up year.

The Pilot Schools' positive outcomes suggest the schools' practices and strategies should be shared with the district and other educators. Pilot Schools were created to serve as laboratory sites for the district, in which flexibility allows for innovations that would in turn inform other schools. The data in this paper show that Pilot Schools have fewer students leaving through transfer or dropping out and lower in-district transfer rates, suggesting that Pilot School students have found good matches in their schools. Pilot Schools' diversity in mission and structure allows a range of students to find schools that are a good fit. As the district looks for strategies to create schools that are more responsive to student needs, Pilot Schools should serve as a model for increasing the choice options within the district.

Another Pilot School indicator that correlates with higher academic achievement is their lower grade level retention rate. Almost all Pilot Schools promote students based on competency rather than courses or credits accrued. Teachers use multiple and varied assessments, including performance assessments, to determine student promotion. A detailed study of how Pilot Schools develop and implement a system of competencies and assessments may inform other educators about strategies for improving promotion and graduation rates.

The Pilot Schools should continue to document their innovative practices, and the Pilot Schools Network and district should collaborate on developing more ways of sharing these practices with other schools and districts.

The district's and teachers union's support of Pilot Schools is crucial to their success. Having a network of autonomous schools changes the relationship between those schools and the district. While districts traditionally mandate reforms and monitor their implementation, the BPS central office's role has shifted to one of providing services and supporting Pilot Schools in the use of autonomies. Districts that create Pilot Schools must also develop strong accountability measures for autonomous schools, prepare leaders in the implementation of autonomy, and provide discretionary services needed by schools.

25 See Appendix C for individual school outcomes.

Teachers are at the center of schools and should be included in all phases of designing and implementing Pilot Schools. When Pilot Schools are being created by a district, teachers union co-planning results in greater "buy-in" for the new schools. The union can support improvement of Pilot Schools and the Pilot School model through participation in the school quality review process and sharing of practices between Pilot School and BPS teachers.

A collaborative effort between the district and the teachers union includes new and expanded roles for each entity and ensures a stronger, more responsive Pilot Schools Network.

Success is achievable in the public school system. The Pilot Schools Network has grown in size in its decade of existence. At a Boston Foundation planning grant session in 2002, one quarter of BPS schools expressed interest in how to become Pilot Schools. Students cite academic rigor, interesting curricular offerings, and caring, nurturing teachers as the features that attract them to Pilot Schools (Doyle et al, 2003). Meanwhile, 26% of Boston school-age residents now choose to attend school outside the district.[26] Boston needs to continue to expand choice options for its families so that they will stay in district schools or return if they have left.

As members of the public school system, and with the same per pupil expenditure, Pilot Schools have outpaced the BPS average on every measure of engagement and achievement. In coming years, we expect the Boston Pilot Schools Network to deepen and expand its work in Boston by serving greater numbers of students. As a laboratory of innovation and improvement, the Network is also in a key position to assist other districts in creating successful small and autonomous schools. Through their choice, commitment, educational excellence, and innovation *within* the BPS system, Pilot Schools have made the system stronger and more successful.

26 BPS website, http://www.boston.k12.ma.us/bps/bpsglance.asp

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Appendix A: Methods

Data Sources

The data used in this report come from several sources. The Boston Public Schools provided CCE with a database of indicators in 52 categories for the end of the school year 2003–04[27] for every student who was enrolled at any point during the school year. Data was received at the individual student level, with randomly generated unique student identifiers to protect student confidentiality. The demographic and engagement data was also reported to the Massachusetts Department of Education through its Student Information Management System (SIMS).[28] Data points for each student include race/ethnicity, lunch status, date of birth, grade level, special education placement, English proficiency, days of attendance, and number of suspensions. In addition to the SIMS indicators, the database includes results of the Massachusetts Comprehensive Assessment System (MCAS) exams in English Language Arts and/or math for students in grades 3, 4, 6, 7, 8, and 10.

A second source of data was the Boston Private Industry Council (PIC), who provided data on post-secondary participation of Boston high school graduates.

Data were also collected directly from schools on a number of quantitative indicators of school practice. (These second two data sources are described in more detail below.)

A fourth source of data was the Massachusetts Department of Education website, for data on college plans.

School Types

All schools included in the analysis are part of the Boston Public Schools (BPS). All schools within BPS may be classified as one of three types: traditional district schools, Pilot Schools, and Exam schools.[29] Each of the three types of schools is defined below.

Boston Public Schools—Includes all schools in the Boston Public Schools except for schools that have Pilot status (Pilot Schools) and those that require students to take and pass an entrance examination (Exam schools). Therefore, the 2003–04 BPS sample analyzed in this report includes 107 schools and 85% of all students in the district. For simplicity, these schools are referred to as "BPS" schools in this report.

Pilot Schools—Includes all schools that have been granted Pilot status by the district, except for the one Early Learning Center, the two schools that were newly opened in 2003–04, and the one school that opened in 2004–05. Orchard Gardens and Lilla G. Frederick, the two schools that were newly opened in 2003–04, were not included in the analysis in the body of the report

27 BPS provided the data for all schools except Boston Day and Evening Academy and Health Careers Academy. In addition to being Pilot Schools, both schools are also Horace Mann Charter Schools. The data from each of these two schools came directly from the schools in the SIMS format.

28 For more information on the Massachusetts Department of Education's SIMS, including indicators and their codes, see http://www.doe.mass.edu/infoservices/data/sims/.

29 Schools that serve as Early Learning/Early Education Centers and those that exclusively serve students with severe special learning or behavioral needs were not included in the analysis (see Appendix E for list).

because they opened without the opportunity to exercise the full autonomy that all other Pilot Schools have. Therefore, the 2003–04 Pilot School sample includes 15 schools, serving 7% of students in the district.

Exam Schools—Includes three schools that base admission on entrance examination scores and prior academic achievement. Each school serves students in grades 7–12. In 2003–04, there were three Exam schools serving 9% of all students in the district.

School Levels

All analyses, with the exception of the MCAS results, which are by test grade level, are divided into three school levels:

Elementary—Kindergarten through grade 5;

Middle—Grades 6 through 8; and

High—Grades 9 through 12.

Several schools span these traditional grade boundaries.[30] For the schools that span traditional school grade levels, student data were analyzed by appropriate levels based on grade. For example, for all K–8 schools, students in grades K–5 were included in the analysis of elementary schools while students in grades 6–8 were included in the analysis of middle schools.

The following table shows the numbers of schools at each school level by school type.[31]

	Elementary	Middle	High
BPS	72	24	18
Pilot	5	7	10
Exam	N/A	3	3

Analyses of the SIMS and MCAS data were completed using SPSS software. All data is aggregated by *school level* and *school type*. To facilitate data analysis in SPSS according to school level and school type, two variables were created for each student. The first is a school level variable that identifies each student as an elementary, middle, or high school student based on his/her grade level. The second is a school type variable that identifies each student as either a BPS, Pilot, or Exam school student. Both variables were used in all demographic and engagement analyses, while the school type variable was used in the MCAS analyses.

30 Schools spanning grade levels were: three K–8 Pilot Schools, one 6–10 Pilot School, six K–8 BPS schools, and three 7–12 Exam schools.

31 Schools that span grade levels were included in the corresponding totals. For example, schools that serve students in grades Kindergarten to 8 are included in both the elementary and middle totals.

Demographics

Four major demographic indicators were calculated for each school level/school type: Race/ethnicity, eligibility for free or reduced-price lunch, special education status, and English proficiency.[32] Each analysis represents the proportion of students in each particular school level and school type by indicator.[33] For example, the proportion of Black students in Pilot middle schools is calculated as the total number of Black students in Pilot middle schools divided by the total number of students in Pilot middle schools.

Race/Ethnicity—In Massachusetts, students are classified into one of five categories: American Indian/Alaska Native; Asian/Pacific Islander; Black; White; or Hispanic. The proportions were calculated for each category.

Free/Reduced-Price Lunch Eligibility—Eligibility status for free or reduced-price lunch is the most commonly used indicator of the income level of students in a school. In the absence of complete and accurate data on household income, lunch status serves as a proxy for income. Eligibility was indicated in one of three categories: the student is not eligible for either; the student is eligible for free lunch; or the student is eligible for reduced-price lunch. The second two categories were collapsed into one—eligible for free/reduced-price lunch.

Special Education Status—Students are classified into 13 categories in the Massachusetts Department of Education's Special Education Placement variable. Of those, 7 categories applied to students in the whole district in 2003–04. To reflect predominant practices and simplify reporting, a new variable was created that combined the classifications into three groups: not in special education, in mainstream special education, and in substantially separate special education.[34] The classifications for both mainstream (502.1, 502.2, and 502.3) and substantially separate (502.4) special education categories are consistent with students' federal special education prototypes.

Limited English Proficiency (English Language Learners)—Students are reported in two categories: those who are capable of performing ordinary classwork in English and those who are not.

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32 Students who were enrolled in school at the end of the 2002–03 school year but attended zero days of school in 2003–04 were excluded from all analyses except for the district leaver and grade level retention analyses.

33 All values in this report are rounded to the nearest whole number.

34 The following three special education placement categories were collapsed into "not in special education": "not a Special Education student"; "not a Special Education student, but was previously a Special Education student during the current school year"; and "3–5 year olds, General Education serving as role models in Pre-K classes." The following were collapsed into "mainstream special education": "All ages, full inclusion" and "All ages, partial inclusion." The following category was recoded as "substantially separate special education": "All ages, substantially separate classroom." The only special education category that applied to district students in 2003–04 that is not included in this analysis is the "All Ages Public Separate Day School": This category refers to students who attend schools that were excluded from the overall analysis. The other six categories did not apply to students in the district in 2003–04 and therefore were not part of the recoded variable.

Engagement

Attendance—Attendance was reported as the number of days that a student attended school. A second variable, membership, indicates the number of days that a student was enrolled in the school. An attendance rate variable was calculated for each student by dividing the number of days attended by the number of days of membership. The case summary function was then used to determine the range and median for each school level/school type. The figure reported is the median attendance rate for students in a school level/school type.

Discipline—This indicator reports the proportion of students who have been suspended (received out-of-school suspensions) at least once during the school year. It does not take into account the number of times that an individual student was suspended from school.

District Leavers—District leavers include students who transferred out of the district, dropped out, were expelled, or were enrolled at the end of the previous school year but did not return for the 2003–04 school year.

In-District Transfers—This indicator includes students who changed schools within Boston Public Schools between the end of the 2002–03 school year and the end of the 2003–04 school year.[35] Transferring students were associated with two schools; rates were determined according to the school level and type that they left. Three data points were utilized in the analysis: June 2003, October 2003, and June 2004.

An October 2003–June 2004 transfer rate was calculated for all students who were new to the district or new to kindergarten in 2003–04. A June 2003–June 2004 rate was calculated for all students who were in the district in 2002–03, except for those students who were in either fifth or eighth grade. Due to the fact that not all of the Boston elementary and middle schools end at grades 5 and 8, respectively, transfers of students in these grades were calculated separately. Finally, the results of each analysis were aggregated to arrive at the in-district transfer rate.[36]

Performance

Grade Level Retention—This measure is the proportion of students in each school level/school type who were in the same grade in 2003–04 as in 2002–03.[37] Grade level retentions were calculated by subtracting a student's grade level in 2002–03 from his/her grade level in 2003–04. Boston Evening Academy and Greater Egleston Community High School were not included in this analysis because they are competency-based schools that do not use traditional grade levels.

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35 Health Careers Academy and Boston Day and Evening Academy, which are Horace Mann Charter Schools in addition to being Pilot Schools, were not included in this analysis because comparable data were not available for this indicator.

36 For more detail on in-district transfer rate methods, please contact the authors.

37 Grade level retentions also include a small number of students who were in a lower grade level in 2003–04 than they had been in 2002–03. There are times when students arrive in the district without educational records and are subsequently placed in an inappropriate grade level.

College Plans—Data represent twelfth-grade students' college-going plans in May 2004, as reported to the district. Data were downloaded from the Massachusetts Department of Education website[38] into Microsoft Excel. Data were not available for two BPS high schools and one Pilot high school. Data were obtained directly from one other Pilot high school. The rate reported for each school type is the average of each school's proportion of students planning to go to either two- or four-year colleges.

Participation in Post-secondary Education—Survey data on post-secondary participation of 2003 high school graduates were provided by the Boston Private Industry Council (PIC), an organization that provides school-to-work services to Boston high schools. The overall survey response rate was 81% of 2003 Boston high school graduates; the data provided by PIC are derived population estimates.[39] The rate presented in this report is the proportion of graduates who were enrolled and attending a four-year college, two-year college, or technical or trade school one year after graduation. Results are displayed as the proportion of each Pilot high school as well as the average proportion of interviewees in each school type who were enrolled in post-secondary education one year after graduation.

MCAS—Student performance on the Massachusetts Comprehensive Assessment System (MCAS) exams was used as an indicator of students' academic performance. Students take MCAS tests in grades 3–10. This report includes an analysis of all of the reading, English/Language Arts, and math tests administered in grades 3, 4, 6, 7, 8, and 10. MCAS performance data were provided at the categorical (ordinal) level. For each student who participated in the MCAS during the spring of that school year, results were reported at four categorical achievement levels: Advanced, Proficient, Needs Improvement, and Warning/Failing.[40] Results are presented in two ways: the percentage of students in the Advanced and Proficient categories and the percentage of students passing the test, with passing encompassing the categories of Advanced, Proficient, and Needs Improvement. Results are presented as the percentage of students in each of the two collapsed categories by school type.

38 Source of college plans data: http://profiles.doe.mass.edu/plansofhsgrads.aspx?mode=school&orderBy=.

39 Estimates are based on weighted sample results. For more information, see Ishwar Khatiwada and Andrew Sum's College Enrollment and Labor Market Outcomes for Class of 2003 Boston Public High School Graduates: Key Findings of the Winter/Spring 2004 Follow-up Surveys published in December 2004 by the Boston Private Industry Council. Available at http://www.bostonpic.org/about/Classof2003-CollegeEnrollandLaborMarketOuts.pdf.

40 The fourth category is called "Warning" for students in grades 3–8 and "Failing" for students in grade 10, signifying the high-stakes nature of the tenth-grade exams.

Appendix B: Methods for School Characteristics

Pilot School Characteristics

Pilot School characteristics are quantitative indicators of staffing, scheduling, and curriculum that affect a school's structure, culture, and instruction (CCE, 2001b). While the rest of the data in the report are from the 2003–04 school year, these data are from the 2004–05 school year. Raw data were collected and school practices were calculated for each Pilot School. The results were then averaged within each school level and are presented as such. Where available, Boston district comparisons are also presented. Corresponding BPS figures were obtained from the Boston Public Schools FY 2005 Budget and School Hours website (www.boston.k12.ma.us) and the 2003–06 Boston Teachers Union contract.

Report Review Process

This study was completed by research staff at the Center for Collaborative Education, the Pilot Schools Network's convening organization. The report was reviewed by the CCE Research Advisory Group, other researchers, and key Boston Public Schools staff.

Indicator	Pilot Data Source	Pilot Method	BPS Data Source
Average number of students seen by core academic teachers each day in core academic subjects	Teacher schedules and course lists	Add number of students seen in core classes each day of the week and then divide by 5.	Not available
Average class size	Course list or class rosters, depending on the school	Average the enrollment of regular education classes.	BPS FY2005 budget and BTU 2003–06 contract
Average 9th-grade English class size	Course list or class rosters, depending on the school	Average the enrollment of all regular education 9th-grade English classes.	BPS FY2005 budget and BTU 2003–06 contract
Regular education teacher:student ratio	Staff list and total enrollment by education type	Divide all regular education students by the total number of regular education teachers, including core teachers and specialists.	Not available
Length of student school day (minutes)	School schedule	Add minutes that students are required to be in school each day of the week and divide by 5.	BPS school hours webpage (predominant hours for each grade level)
Length of teacher school day, including after-school contracted faculty meeting time (minutes)	Work Election Agreement, or if no WEA available, school master schedule or staff handbook	Add minutes that teachers are required to be in school each day of the week and divide by 5.	BPS school hours webpage, BTU 2003–06 contract
Minutes per week of professional collaboration time	Teacher schedules and Work Election Agreement	Add minutes per week that each teacher has for professional collaboration, regularly scheduled staff meetings, and professional development. Add all teachers' time together and divide by the number of teachers.	BTU 2003–06 contract
Number of years students and teachers stay together	School personnel	Give actual range.	Not available
Advisories	Teacher and student schedules	Indicate yes or no.	Not available
Minutes/week in advisories	Teacher and student schedules	For each individual student, add all time spent in advisories; then average all students.	Not available
Number of full professional development days	Work Election Agreement and School Personnel	Add actual number of required full-day professional development sessions.	BTU 2003–06 contract

Appendix C: 2003–04 Pilot School Outcomes by School

The following tables show the rates for each outcome indicator for each individual Pilot School and the BPS average for the school level. All numbers are percentages. Orchard Gardens K–8 School and Lilla G. Frederick Pilot Middle School are included in these tables.

Pilot School Student Engagement, by School

	Attendance Rate	Suspension Rate	District Leaver Rate	In-District Transfer Rate
Elementary Schools				
Lyndon	97	2	5	4
Mason	99	1	7	4
Mission Hill	97	0	13	2
Orchard Gardens	96	4	5	2
Young Achievers	96	0	9	4
BPS Elementary Schools	96	3	11	12
Middle Schools				
Harbor	97	26	16	8
Lilla G. Frederick	93	27	12	2
Lyndon	96	10	9	10
Mission Hill	97	0	15	8
Orchard Gardens	97	16	9	2
Quincy Upper	99	6	3	15
Young Achievers	96	0	7	4
BPS Middle Schools	94	14	14	14
High Schools				
Another Course to College	93	2	15	4
Boston Arts Academy	95	0*	6	3
Boston Community Leadership Academy	94	18	14	6
Boston Day and Evening Academy	92	0	20	Not available
Fenway	95	0	6	2
Greater Egleston Community High	75	0	27	5
Health Careers Academy	95	9	3	Not available
New Mission	99	0	12	3
Quincy Upper	97	7	3	10
TechBoston Academy	97	0	11	3
BPS High Schools	89	9	22	5

* Boston Arts Academy's suspension rate is actually 0.5%. The other schools listed as zero were actually zero.

Pilot School Student Performance, by School

	Percent of students retained in grade	Percent of 2004 graduates planning to attend 2- or 4-year colleges	Proportion of 2003 graduates in post-secondary education one year later
Elementary Schools		Not applicable	
Lyndon	3		
Mason	3		
Mission Hill	4		
Orchard Gardens	12		
Young Achievers	7		
BPS Elementary Schools	6		
Middle Schools			
Harbor	6		
Lilla G. Frederick	8		
Lyndon	1		
Mission Hill	4		
Orchard Gardens	7		
Quincy Upper	2		
Young Achievers	0		
BPS Middle Schools	5		
High Schools			
Another Course to College	6	65	Not applicable
Boston Arts Academy	8	78	86
Boston Community Leadership Academy	12	66	67
Boston Day and Evening Academy		59	Not available
Fenway	4	70	94
Greater Egleston Community High	Not available	Not available	50
Health Careers Academy	2	90	92
New Mission	11	100	71
Quincy Upper	2	Not applicable	Not applicable
TechBoston Academy	6	Not applicable	Not applicable
BPS High Schools	19	49	67

Pilot School MCAS Results, by School

Elementary Grades	Grade 3 MCAS Reading		Grade 4 MCAS ELA		Grade 4 MCAS Math	
	% advanced/ proficient	% passing	% advanced/ proficient	% passing	% advanced/ proficient	% passing
Lyndon	80	96	64	89	49	85
Mason	67	96	55	94	58	94
Mission Hill	60	80	24	43	14	29
Orchard Gardens	12	60	3	47	0	15
Young Achievers	54	98	24	65	12	53
BPS Elementary Schools	34	80	29	74	21	68

Middle Grades	Grade 6 Math		Grade 7 ELA		Grade 8 Math	
	% advanced/ proficient	% passing	% advanced/ proficient	% passing	% advanced/ proficient	% passing
Harbor	9	47	31	84	5	39
Lilla G. Frederick	2	24	32	69	4	28
Lyndon	49	71	82	91	50	63
Mission Hill	7	40	23	46	24	29
Orchard Gardens	4	25	21	63	3	18
Quincy Upper	54	81	55	93	36	70
Young Achievers	38	88	32	95	33	56
BPS Middle Schools	17	46	36	80	12	43

High Schools	Grade 10 ELA		Grade 10 Math	
	% advanced/ proficient	% passing	% advanced/ proficient	% passing
Another Course College	Not applicable	Not applicable	Not applicable	Not applicable
Boston Arts Academy	46	95	33	88
Boston Community Leadership Academy	24	73	30	77
Boston Day and Evening Academy	Not available	Not available	Not available	Not available
Fenway	35	85	33	88
Greater Egleston Community High	5	30	0	25
Health Careers Academy	43	95	28	78
New Mission	24	81	24	75
Quincy Upper	40	87	43	77
TechBoston Academy	48	93	50	95
BPS High Schools	17	58	24	59

Appendix D: Boston Pilot Schools/Horace Mann Network Vision Statement; and Principles and Practices

Vision Statement

The Boston Pilot Schools/Horace Mann Network is a group of schools that envision education as a primary institution for achieving a more just, democratic, and equitable society. These schools have been given autonomy over: (1) budget; (2) staffing and hiring; (3) school schedule and calendar; (4) curriculum, instruction, and assessment; and (5) governance, which are essential elements in creating and sustaining successful schools.

The Boston Pilot/Horace Mann Schools engage their students in rigorous and meaningful learning experiences. Their vision is to prepare students to become thoughtful, reflective, and creative individuals with the competence and habits of mind necessary to construct knowledge and understanding that facilitates engagement in learning. The Network believes that a primary purpose of education is to prepare students to access their talents and expertise in order to assume their roles in making important contributions in their local, state, and national communities. These schools are committed to:

- **Accountability—**The School Quality Review process provides each school, as well as the district, with the opportunity to assess their progress every four to five years.
- **Equity—**Data and documentation of accomplishments and patterns of achievement are disaggregated across race, gender, and socioeconomic status in order to identify effective practices that provide students with opportunities to access high levels of achievement.
- **Advocacy—**Community organizing and political advocacy are employed with the goal of broadening constituencies that support Pilot Schools to ensure support and resources that are necessary for their continued success.
- **Family Engagement—**Family participation, and respect, trust, and collaboration are encouraged to help create a successful teaching and learning experience for every student.
- **Leadership—**There is support for school leaders, staff, students, and parents, with a focus on creating democratic schools through shared leadership.
- **Unifying Mission & Vision—**School-wide practices and structures are driven by each school's mission and vision. There is an ongoing and consistent effort to create a learning community that is reflective of a core set of beliefs and values about teaching, learning, and assessment.

- **Teaching & Learning—**Staff are engaged in:
  - Sharing and deprivatizing practice;
  - Developing a clearly articulated curriculum that integrates rigor of content, high-level thinking, and active use of knowledge;
  - Establishing explicit expectations for learning;
  - Challenging students to think about and reflect on their learning processes and strategies and to assess their progress over time;
  - Creating classroom communities that are caring, responsive to the needs of each student, and that stress the interdependence of teaching and learning.

Principles and Practices

- Teaching and learning reflect high expectations for every member of the school community.
- Schools within the Network empower students to discover and develop their talents, strengths, purpose, and ideas.
- Each school has a unifying mission and/or vision that is embedded in all aspects of the school, including curriculum, discipline, rituals and traditions, daily schedule/calendar, professional development, family/community engagement, and other school-related activities.
- Those closest to the students are the policy and decision makers, which include teachers, administrators, support staff, parents/guardians, and students themselves. This requires democratic forms of school governance, shared leadership, and collaborative decision making.
- The school is personalized so that teachers and students know each other well.
- Professional development is characterized by reflection, collaboration, risk taking, and research-based innovation, and is an integral part of the daily schedule.
- Learning is purposeful, authentic, and relevant—building student ownership and responsibility for learning.
- Students are assessed in multiple ways, such as exhibitions and portfolios, in addition to standardized tests. They are expected to demonstrate their knowledge and competencies and its relevance in the community.
- Families are partners in creating a high-performing school.
- The school culture is centered around respect and trust.
- All members of the school community share responsibility for student achievement.

Appendix E: School Lists

BPS Schools

Adams Elementary
Agassiz Elementary
Alighieri Elementary
Bates Elementary
Beethoven Elementary
Blackstone Elementary
Boston Adult Academy
Bradley Elementary
Brighton High
Burke High
Channing Elementary
Charlestown High
Chittick Elementary
Clap Elementary
Cleveland Middle
Condon Elementary
Conley Elementary
Dearborn Middle
Dever Elementary
Dickerman Elementary
Dorchester High
East Boston High
Edison Middle
Edwards Middle
Elihu Greenwood
Eliot Elementary
Ellis Elementary
Emerson Elementary
English High
Everett Elementary
Farragut Elementary
Fifield Elementary
Gardner Elementary
Garfield Elementary
Gavin Middle
Grew Elementary
Guild Elementary
Hale Elementary
Haley Elementary
Hamilton Elementary
Harvard/Kent
Hennigan Elementary
Hernandez K–8
Higginson Elementary
Holland Elementary
Holmes Elementary
Hurley Elementary
Hyde Park High
Irving Middle
Jackson/Mann
James Curley
John F Kennedy
Kenny Elementary
Kilmer Elementary
King Middle
Lee Elementary
Lewenberg Middle
Lewis Middle
Lyon Elementary
Mary Curley Middle
Madison Park High
Manning Elementary
Marshall Elementary
Mather Elementary
Mattahunt Elementary
McCormack Middle
McKay Elementary
Mendell Elementary
Mozart Elementary
Murphy Elementary
O'Donnell Elementary
O'Hearn Elementary
Ohrenberger Elementary
Otis Elementary
Patrick Kennedy
Pauline Shaw
Perkins Elementary
Perry Elementary
Philbrick Elementary
Quincy Elementary
Rogers Middle
Roosevelt Elementary
Russell Elementary
Sarah Greenwood
Snowden International
South Boston High
Stone Elementary
Sumner Elementary
Taft Middle
Taylor Elementary
Timilty Middle
Tobin Elementary
Trotter Elementary
Tynan Elementary
Umana/Barnes Middle
Warren/Prescott
West Roxbury High
Wilson Middle
Winship Elementary
Winthrop Elementary
Business Academy
Excel High
International High
Mildred Avenue
Monument High
Odyssey High
Public Service Academy

Exam Schools

Boston Latin
Latin Academy
O'Bryant

Schools Excluded from the Data Set

Schools Exclusively Serving Students with Special Needs

The following schools were not included in any analysis because they serve very specific populations that are not served by the other Boston Public Schools (for example, deaf or severe learning or behavioral needs).

Carter Center
Community Academy
Expulsion Alternative School/Program
Horace Mann
McKinley Elementary
McKinley Middle
McKinley Technical
McKinley Vocational
Middle School Academy
Young Adult Center

Early Learning and Early Education Centers

The following schools are Early Learning Centers (ELCs) and Early Education Centers (EECs). ELCs and EECs serve students in grades K0–1 in an extended day format. Given their focus on early childhood education and their extended day, these schools are qualitatively different from elementary schools. There are only six ELCs and EECs in the district, which makes them highly sought after. Students are assigned by lottery; there are long waiting lists; and there are no other public school options for students in grades K0 and K1 who are not assigned to one of the six schools. Due to the qualitative differences between early education/early learning centers and elementary schools, students attending grades K2 and 1 in those schools were excluded from all analyses.

Blue Hill Ave EEC
East Boston EEC
East Zone ELC
Mattapan EEC
North Zone ELC /Baldwin ELC (Pilot)
West Zone ELC

Newly Opened Pilot Schools

In school year 2003–04, two new schools opened as Pilot Schools, Orchard Gardens K–8 Pilot School and Lilla G. Frederick Pilot Middle School (grades 6–8). Their design teams were able to obtain Pilot status for these two schools, but although they received a Pilot designation, they were not granted complete autonomy over their school design. The constraints included:

- Mandated enrollment of more than 700 students; other Pilot Schools enroll 500 students or less.
- Mandated opening at full enrollment, as opposed to rolling out grades as did most of the other new schools that opened as Pilot Schools.

- Opening in a year with double-digit budget cuts, which resulted in more than 25% of these schools' staffs being involuntarily assigned from the excess pool, meaning that a high proportion of the faculty did not choose to work in a school with Pilot status.
- All faculty hires were made from August 2003, precluding adequate faculty planning time for the new schools.

Because of their large size, involuntarily assigned faculty, and lack of faculty planning and understanding of autonomies, the two schools did not yet have full Pilot autonomies in the 2003–04 school year. Therefore, these two schools are not included in the outcomes analysis in the body of the report. However, outcomes for each individual Pilot School are included in Appendix C. In future years, as they have a chance to fully implement their autonomies, they will be included in analysis and reporting.

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