RESEARCH REPORT

Fall
2005



Time for a Change:

The Promise of Extended-Time Schools for Promoting Student Achievement

Massachusetts 2020
Education Opportunity

Massachusetts 2020

Massachusetts 2020 is a nonprofit operating foundation with a mission to expand educational and economic opportunities for children and families across Massachusetts. Massachusetts 2020 was founded in 2000 by Chris Gabrieli, a civic and business entrepreneur, and Jennifer Davis, former U.S. Department of Education Deputy Assistant Secretary and Executive Director of the Mayor of Boston's 2:00-to-6:00 After-School Initiative. Over the last five years, Massachusetts 2020 has been a lead partner in launching eight major initiatives, including: Boston's After-School for All Partnership, the largest public/private partnership dedicated to children in Boston's history; the Keeping Kids on Track Statewide Campaign, in partnership with the five largest United Way organizations in Massachusetts; the statewide Middle School Initiative, in partnership with Citizen Schools, the Nellie Mae Education Foundation, the L.G. Balfour Foundation and several other funders; the Transition to Success Pilot, which documented the academic impact of six after-school programs; the School Sites Initiative, expanding after-school programs in 17 Boston schools; the Literacy Coaching Initiative, supporting 40 after-school programs with literacy specialists; and Partners for Student Success, with Boston Public Schools and Boston After School & Beyond, focused on providing children in low performing schools in-school and after-school enrichment and support programs. In 2004, Massachusetts 2020 launched a research and policy effort to restructure public schools to extend their day and year. In 2005, the Massachusetts legislature passed a budget that included funding to support this policy reform.

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Massachusetts 2020 gratefully acknowledges The L.G. Balfour Foundation, a Bank of America Company, for its support of this research project.

For more information

A copy of this report and its executive summary can be downloaded from Massachusetts 2020's website at www.mass2020.org or can be requested by calling 617-723-6747, ext. 3900.

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TABLE OF CONTENTS

1 | Introduction 4

2 | Scheduling: How Extended-Time Schools Use Additional Time 10

3 | Impact Of More Time On Learning 15

4 | How Extended-Time Schools Structure Staffing 21

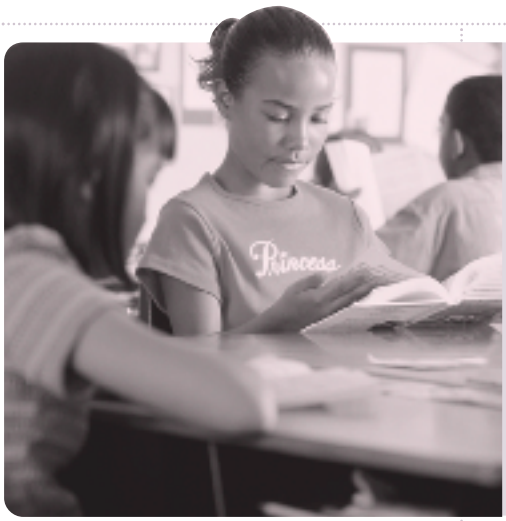
5 | Financing A Longer School Day and Year: Opportunities and Challenges 23

6 | Reactions Of Students, Parents, And Teachers To Extended-Time Schools 28

7 | Time Alone Is Not Enough: Other Characteristics Of Successful Schools 31

8 | Conclusion 35

Notes 37



> "Learning in America is a prisoner of time. For the past 150 years American Public Schools have held time constant and let learning vary.... The boundaries of student growth are defined by schedules for bells, buses and vacations instead of standards for students and learning."
>
> *— National Education Commission on Time and Learning, 1994*

If we interpret low academic performance of students as primarily the result of ineffective schools, we ignore the fact that only 20% of a child's waking hours are spent in school.

1 | Introduction

Why do American Public Schools operate on a calendar of 180 six-hour days? Few educators would honestly respond that this schedule represents the ideal time needed for all students to achieve high standards. Instead, this calendar is a vestige of a nineteenth-century agrarian economy. It is not designed to meet the educational demands of the Information Age. Despite its irrelevance to the learning needs of today's students, the conventional school schedule is adhered to almost universally across the country. Almost. Some schools have in fact managed to break free from this "prison of time," as the national commission put it so eloquently over a decade ago. Some schools have shown that it is possible to build significantly more time into their days and years for the express purpose of enhancing teaching and learning. They have acted on the insight that in this age of high expectations and rigorous accountability, the decades-old school calendar can no longer accommodate their ambitious mission of ensuring that all students reach proficiency. Most of all, these schools offer some strong examples of exactly how much more can be accomplished when the conventional school schedule is shelved in favor of one that is truly responsive to the needs of students and teachers.

This report details the work of a handful of these "extended-time schools," and describes and analyzes their effective practices. This study is not intended to suggest that extended-time schools automatically produce better results. Neither is it meant to prove that simply by extending time alone, schools will offer a superior educational product. Rather, this research was conducted to understand how these particular schools, which have already demonstrated themselves to be effective, capitalize on the additional time, and what benefits the schools' educators perceive the additional time delivers. It is hoped that their examples are both inspirational and informational for those who seek to operate schools that purposely break from the conventional schedule in order to bring all their students to proficiency.

The Missing Element in School Reform

Since the passage of the Massachusetts Education Reform Act in 1993, this state has been a leader in standards-based education reform. Both its learning standards (curriculum frameworks) and its well-aligned assessment test (MCAS) are considered substantive and sensible.[1] Equally impressive, the funding of districts and schools through the foundation budget formula has made Massachusetts one of the few states in the country where per-pupil spending in the lowest quartile of districts (based on socioeconomic status) actually exceeds per-pupil spending in the highest quartile.[2]

Despite this state's achievements in establishing an exemplary standards-based education system, however, the goal of the system—universal educational proficiency—still appears out of reach. From year to year, MCAS results reveal pronounced socio-economic and racial achievement gaps. The percentage of students scoring "proficient" and "advanced" on the tenth grade math and English language arts 2005 MCAS tests in the most affluent school districts in the state was three times the percentage of students in the poorest districts. The percentage of African-American and Hispanic students who score in the proficient range is roughly one-half to one-quarter the percentage of white and Asian students. These gaps persist in every grade and subject. Beyond the achievement gap among groups of students, universal proficiency at all grade levels seems elusive at best: proficiency rates (with the exception of tenth grade math) have remained essentially flat during the last three years (Figure 1). Federal law now mandates that by 2014 all students must demonstrate proficiency on statewide assessment exams. If Massachusetts stays on its current trajectory, this target—only nine years away—will most likely be missed.

In a state that has pumped billions of new funds into the public school system and has built an excellent model of integrated standards and accountability, why are the schools still not able to lift up all students to high standards of achievement? Part of the failure actually lies in the question itself, because it interprets the low academic performance of students as primarily the result of ineffective schools. In actuality, only 20 percent of a child's waking hours are spent in school today. Surely we cannot expect to fully shape student performance through such a relatively small fraction of students' lives.[4]

Furthermore, contemporary students are expected to know and do much more than students in previous generations were. Yet today's students spend the same number of hours in school as their pre-standards predecessors. The conventional school calendar of 180 six-and-a-half-hour days, a calendar that was designed originally to meet the labor needs of 19th century farmers, has remained unchanged for decades, even while expectations for learning outcomes have risen dramatically. We would never expect a long-distance runner to complete a 10-kilometer race in the same time that she runs a 5-kilometer one, but today's students have essentially been challenged to do just that.

Despite the overriding logic of building more time into students' education, almost no effort has been made to do so. Most observers agree that the spark that set off the education reform revolution around standards and accountability was the 1983 report, "A Nation At Risk," which famously declared that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people."[5] Since that report, the educational establishment has implemented four of the report's five principal recommendations, including developing learning standards and holding all students accountable to them. Just one recommendation has received no systemic action or consistent funding: the call for increased learning time (Table 1.)

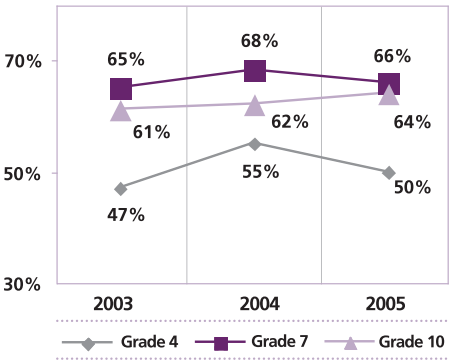
TABLE 1 **A Nation At Risk: Then and Now**

Recommendations of "A Nation at Risk" (1983)		Current Status of Educational Policy (2005)
#1 Implement rigorous standards	→	✔ Standards in place in 49 of 50 states
#2 Hold high expectations/strengthen accountability		✔ NCLB Act requires testing to state standards; 100 percent proficiency required by 2014
#3 Improve teaching profession	→	✔ Many efforts to improve professional development and teacher education
#4 Strengthen leadership and increase fiscal support	→	✔ Education is a domestic priority; significant funding increases at federal and state levels
#5 Increase learning time by extending school day and/or year	→	✘ School year = 180 days (no change) School day = 61/2 hours (no change)

FIGURE 1
Massachusetts Proficiency Rates

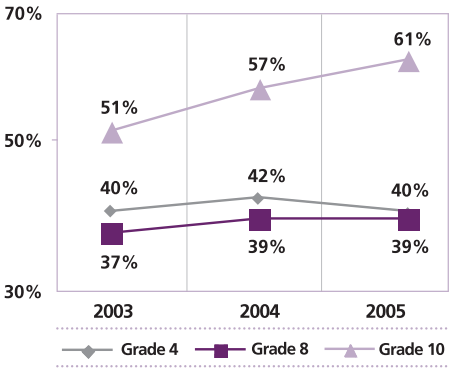
MCAS Scores (English Language Arts)

% Proficient



MCAS Scores (Mathematics)

% Proficient





The call for more learning time in schools is informed by what seems to be common sense: more time equals more learning.

One of the most powerful statements on the need for more learning time comes from Massachusetts's own Time and Learning Commission which in its 1995 report declared, "[I]t has become increasingly obvious that campaigns for higher standards of learning on the one hand, and [calls] for sufficient time to achieve those standards on the other, are wholly interdependent. They stand or fall together.... [O]nly more and better time will provide the teaching and learning needed to open the way for students to reach those standards."[6] Despite such an emphatic affirmation of the singular importance of increased learning time to the success of standards-based education reform, efforts to extend the school day have taken a back seat. With the other four reforms now solidly in place, the final core recommendation of the authors of "A Nation at Risk" must be addressed.

Why Extend Learning Time?

The call for more learning time in schools is informed by what seems to be common sense: more time equals more learning. Adding more time to the school day is not expected to negate the myriad of out-of-school influences on young people's performance in school, such as parenting, poverty, and health. But if more content is to be taught, there must be more time in which to teach it.

In practice, will additional time in school really make a difference in the degree to which all students can achieve proficiency on high standards? Research strongly suggests the answer is yes and that there are five distinct, but mutually reinforcing, means by which more time in school can actually boost learning.

- **MORE TIME ON TASK:** With longer days and, by extension, longer class periods, classroom learning is less rushed. Teachers have the flexibility that enables them to allow students to spend more "time on task," practicing and working with particular information and ideas. The amount of time on task is one of the most basic predictors of student performance.[7]
- **DEPTH AND BREADTH:** With more time, teachers can delve more deeply into subject matter, because they are no longer pressed by the clock to squeeze as much content as possible into a single lesson. Cognitive scientists have found that learning is most likely to endure when students have the opportunity to encounter subject material through a mixture of learning contexts and media. Such contextual variety is more likely to occur when the time is available to engage in several separate, but related and mutually reinforcing, activities.[8]
- **GREATER OPPORTUNITIES FOR PLANNING AND PROFESSIONAL DEVELOPMENT:** A longer day enables schools to build in time reserved for teachers to engage in common planning and on-site professional development, which, research shows, has the greatest impact on teachers' competence and, in turn, on students' proficiency.[9]
- **GREATER OPPORTUNITIES FOR ENRICHMENT AND EXPERIENTIAL LEARNING:** There is growing evidence that with the new mandates of No Child Left Behind (NCLB), subject material in schools is narrowing. In a high-stakes environment, schools often decide they must devote the bulk of their limited time to teaching English language arts and mathematics, the subjects in which their students are required to pass state exams. This reduced focus often acts to squeeze out non-tested subjects, like art, music, or even social science courses. More time, however, usually means that these "extras" can be re-included in the school day. Meanwhile, some research suggests that, in addition to broadening students' knowledge base, these "extras" often serve to better engage students in school and in learning generally.[10]
- **STRONGER ADULT-CHILD RELATIONSHIPS:** More time allows for greater interaction between teacher and student. A long history of quantitative and qualitative research demonstrates that the teacher-child relationship stands at the core of learning. Deepened relationships, not surprisingly, generally promote higher academic achievement.[11]

A growing number of charter schools and other innovative educational institutions have taken to heart these five benefits of extending school time. In Massachusetts, for instance, 82 percent of the 48 charter schools in operation during the 2003–2004 school year maintained a school week longer than the traditional 32.5 hours. About 50 percent maintained a school calendar longer than the typical 180 days. At the renowned KIPP Academies, a network of 45 middle schools throughout the country, students spend approximately 60 percent more time in school than students at conventional middle schools. In Boston and Worcester many pilot schools and a smattering of entrepreneurial district schools have also found ways to extend learning time for a substantial number, if not all, of their students.

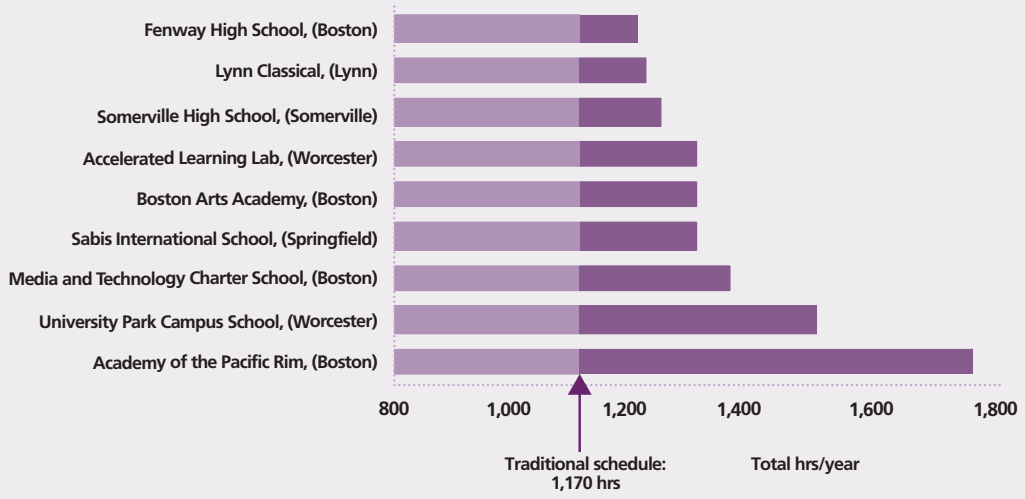
Leaders in these schools place an unwavering priority on expanding learning time. They find ways to stretch resources and reorganize their schools to offer that time. With or without knowing it, each of these schools has put into practice the Massachusetts Time and Learning Commission's recommendation that "learning must be the constant, the fixed and unchanging goal, and time the variable that serves it."[12]

Both evidence and logic suggest that these extended-time schools have it right. In 2003, the Rennie Center for Education Research and Policy published a report called "Head of the Class: Characteristics of Higher Performing Urban High Schools in Massachusetts," which identified the nine highest-performing urban high schools in the state. While these schools are effective for a variety of reasons, it seems no coincidence that each one extends the total amount of time per year beyond the conventional schedule of 1,170 hours per year. (Figure 2.)

...unless and until policymakers and educators commit to making more learning time available, it seems inevitable that the vision of universal proficiency will remain out of reach.

Of course, simply adding time to the schedule of any school, without having other significant elements in place, is unlikely to result in sizeable improvements in student performance. Time is not the driver of success; rather, it is a resource that educators can tap to make their work more effective. Visionary principals, talented teachers, committed parents, the consistent use of rigorous data and assessment tools, and the teaching of rich educational content, all tend to be more effective when more time is available.

FIGURE 2 **Instructional Time in Higher-Performing Urban High Schools***



**All operational hours data were collected by Massachusetts 2020 from schools' reported schedules for SY 2002-03. Note that due to budget cuts at the district level, University Park no longer operates on extended hours.*

Massachusetts has taken great strides to enable today's public school students, especially those who are academically at-risk, to achieve at the high levels expected of them and to receive a well-rounded, enriching education that equips them with 21st century skills and knowledge. But because time is so central to the learning equation, unless and until policymakers and educators commit to make more learning time available, the vision of universal proficiency that the state has set forth will remain out of reach.

Research Project

Extending the school day and year is not easy. The conventional calendar remains one of the most intractable features of the American educational system. Altering the traditional school schedule has significant ramifications for parents, students, teachers, and school administrators. This reform impacts student and family schedules, transportation arrangements, teacher compensation, pedagogy and curriculum, and other issues.

This research project was fundamentally designed to understand how these challenges can be overcome by studying schools that have actually overcome them. How are schools able to implement a change of such magnitude in effective and sustainable ways? To provide insight on this question, Massachusetts 2020, with support from The L.G. Balfour Foundation, a Bank of America Company, engaged in a year-long study of extended-time schools to consider the range of issues that these schools have had to deal with in breaking with the conventional school calendar.

To determine which schools would be most fitting for this research project and to limit the number to a manageable research sample size, we first defined an extended-time school as any school that requires all its enrolled students to attend school for at least 15 percent more hours than do schools in the district with a conventional schedule. We then developed a basic filter to identify those public elementary and middle schools in Massachusetts and in nearby states that would provide us the most valuable data sources. We decided that schools worth exploring should meet the following criteria:

- More than 50 percent of the student body qualified for free or reduced lunch
- Located in a city with population greater than 50,000
- Incorporated unique approaches to using additional time
- Showed positive learning outcomes

We selected seven schools that represented different types (district, charter, and pilot[13]), grades served, and locations (Table 2.) We also decided to examine on a more minimal basis an eighth school, University Park Campus School, which is no longer an extended-time school but had successfully operated as an extended-time school for its first six years.[14] The final research cohort was narrowed down from a list of about a dozen possible choices. Because of funding and other issues, Massachusetts 2020 decided to visit eight of the schools, with preference given to those located in Massachusetts.

TABLE 2 **Names and Characteristics of Profiled Schools**

School Name	Location	School Type	Grades Served (Enrollment)	Total Hours Per Year (% more than district)	% Free and Reduced Lunch
Community Day Charter School	Lawrence, MA	Commonwealth Charter	K-8 (306)	1,480 (28%)	68%
KIPP Academy of Lynn	Lynn, MA	Commonwealth Charter	5-8* (75)	1,870 (60%)	87%
KIPP Academy New York	Bronx, NY	New York City Charter	5-8 (250)	1,870 (58%)	95%
Murphy School	Boston, MA	District	K-8 (951)	1,605 (45%)**	69%
Roxbury Preparatory Charter School	Boston, MA	Commonwealth Charter	6-8 (190)	1,592 (43%)	67%
Timilty Middle School	Boston, MA	District	6-8 (661)	1,281 (15%)	83%
University Park Campus School	Worcester, MA	District	7-12 (220)	1,440 (22%) ***	73%
Young Achievers Science and Mathematics Pilot School	Boston, MA	Citywide District Pilot	K-8 (296)	1,446 (30%)	64%

**School opened in September 2004 and at the time of the site visit served only fifth graders. The school has plans to add one grade each year over the next three years. **The Murphy School does not technically fit our definition of an extended-time school because not all children are required to attend for a longer day, but one third of school population (307 students) participates in a school-run extended-day program. Hours shown are for students enrolled in the extended-day program. ***Hours shown are based on the school's schedule when University Park operated as an extended-time school.*



At each of these schools, the Massachusetts 2020 research team conducted a one- or two-day site visit, which included class observations, interviews, and focus groups with a wide variety of stakeholders (administrators, teachers, students, and parents). The data collected from these visits and from follow-up communications focused on six core questions:

A. How does the school use the additional time (i.e., structure its schedule for students) and how are the needs of students and teachers addressed through the schedule design?

B. How does the academic program capitalize on the extended time and what are the outcomes in student learning?

C. How does the additional time affect staffing (e.g., teacher schedules, pay, recruitment, job expectations, etc.)?

D. What are the added costs associated with the extended time and how are revenues generated to cover these additional costs?

E. What are the reactions of students, teachers, and parents to the non-traditional school schedule?

F. What other factors, in addition to extended learning time, contribute to the school's effectiveness?

Rather than present individual case studies of each of these schools, we have organized this report into subject areas that respond to these questions. We have drawn upon data from each school to develop a cross-sectional analysis of the successes and challenges of these eight extended time schools, with the chapters arranged in the following order: (a) student schedules; (b) learning outcomes; (c) staffing; (d) finances; (e) stakeholder reactions; and (f) other characteristics of successful schools.

Altering the traditional school schedule has significant ramifications for parents, students, teachers, and school administrators.

Regardless of the specific scheduling approach, the additional hours generally translate into greater academic support for all students and a greater variety of enrichment activities.

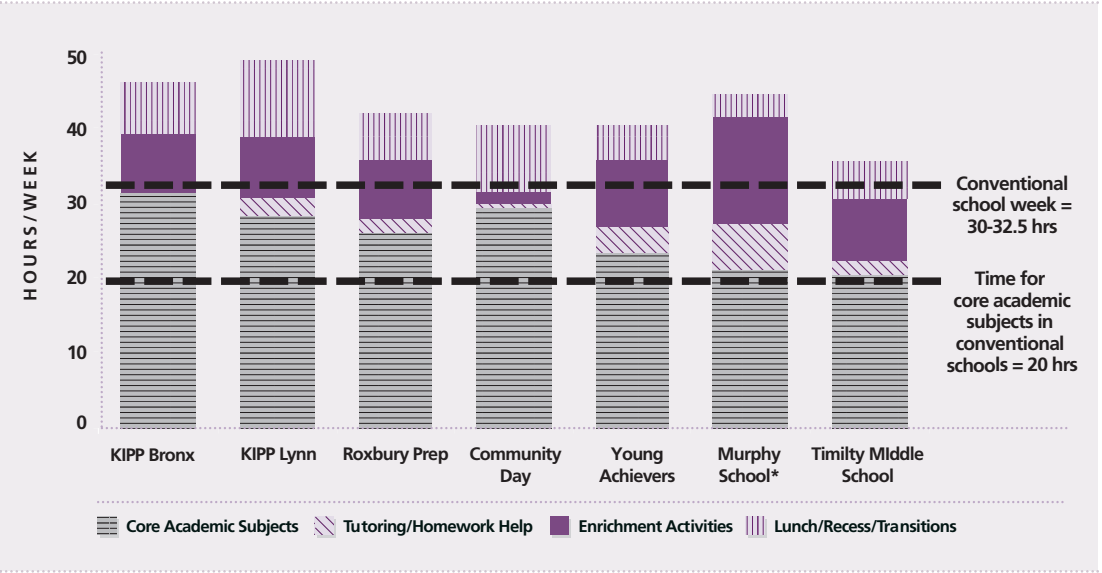
2 | Scheduling: How Extended-Time Schools Use Additional Time

Students at the extended-time schools profiled spend 15-60 percent more time in school than do their counterparts at traditional schools. Not including the additional summer or weekend programming that takes place at some of these schools, students attend school for an additional 6-20 hours per week. The schools examined for this project use this time to incorporate a mixture of the following into their schedule:

- Longer class periods for core academic subjects
- Extra class periods of math and/or English
- Professional development and planning
- Extracurricular and enrichment activities
- Tutoring and homework help
- Community-building activities and events

Regardless of the specific scheduling approach, the additional hours generally translate into greater academic support for all students and a greater variety of enrichment activities. Figure 3 below shows how the schedules of seven of the profiled schools break down into four basic categories (core academics, enrichment, tutoring, and transitions/lunch). It is followed by further detail on several schools' approaches to scheduling.

FIGURE 3 **Use of Time at Extended-Time Schools**



Notes: Totals based on sixth grade schedules at all schools except KIPP Academy Lynn, which, at the time of this study, served only fifth grade. Core academic subjects include: math, English language arts, science, social studies, and foreign languages (if they are a required part of the curriculum). Enrichment, electives, and other activities include: art, PE, music, dance, clubs, computers, advisory/homeroom, foreign languages (if they are offered as an elective), and other school-wide community-building activities. For the Murphy School the schedule of students in the extended-day program is shown. Though not shown here, most schools also offer optional after-school, Saturday, and summer programming.

Longer class periods for core academic subjects

Many schools use the additional time in the school day to schedule longer class periods. In the typical middle school, for example, when students have different teachers for each subject, the class period lasts about 50 minutes. Many teachers and administrators in these extended-time schools believe 50-minute class periods are too short to cover the required material, answer all student questions, and ensure that students fully grasp the concepts presented. They therefore lengthen their classes to

90 or even 120 minutes. In some cases, only math and English classes are lengthened, while in others, all subjects are allotted more time each day. When the University Park Campus School in Worcester, Massachusetts functioned as an extended-time school from 1997 to 2003, its academic schedule included 90-minute class periods for all core academic subjects. Teachers used these 90-minute class periods to incorporate more project-based learning, allow more time for practicing key skills, and cover material in greater depth. For University Park, the principal reason for adopting a longer school day was, in fact, to allow for these longer class periods.

Teachers point out that although longer class periods can be very beneficial, teachers do need to rethink how they plan for and organize the class period. Longer class periods require teachers to adjust their curriculum and lesson plans. Most schools have found it necessary to provide additional professional development and planning opportunities for teachers so that they can learn how to take full advantage of the longer blocks of time.

Extra class periods of math and/or English

Under pressure to improve student performance in English and math and to meet rigorous state standards, many extended-time schools offer extra classes in these two core subjects. At Roxbury Preparatory Charter School, for example, every student takes two 50-minute math classes and two 50-minute English classes daily, with the content of each class varying somewhat. In English, for example, one class concentrates primarily on reading, while the other focuses primarily on writing and grammar. The two classes are closely connected and the two individual teachers work together to plan curricula, but the double class structure ensures that students get practice every day in both reading and writing. Similarly, the double math classes at Roxbury Prep allow teachers to cover more material and give students more time to practice basic math skills. One math period centers on math procedures, skills, and operations, while the other addresses problem-solving and the real-world application of math skills. Like students at Roxbury Prep, students at KIPP Academy New York, KIPP Academy Lynn, and Community Day Charter School spend a full two hours a day on English and two hours a day on math, although, unlike at Roxbury Prep, these students generally have the same teacher for the full two-hour block. At Young Achievers, the English class has been transformed into a two-hour Humanities class for upper-grade students. The class combines the curricula of English language arts with the social sciences by building skills learned in English—reading comprehension, writing and communication—and applying them to the social studies curriculum.

In addition to requiring extra class periods of math and English, some schools designate a short period of time each day, often 20-30 minutes, for students to practice core skills in these two areas. For example, the Timilty Middle School and Roxbury Preparatory Charter School have adopted a program called Drop Everything and Read (DEAR) which requires students to spend time reading independently each day. This practice flows from research that highlights the importance of daily silent reading in improving student's literacy skills. Similarly, KIPP Academy New York has students begin the day with a special "Thinking Skills" period. During this 20-minute period, students work to solve a specific problem (usually a math problem) that requires them to think through and process numerous pieces of information. The purpose of these exercises is to improve student's analytical, problem-solving, and critical thinking skills.

While many schools without extended schedules offer more time for math and/or English language arts, they often do so by cutting time spent on other core academic subjects and enrichment activities. Extended-time schools are able to offer extra support in these key subject areas without sacrificing time allotted for other classes.



Most schools have found it necessary to provide additional professional development and planning opportunities for teachers so that they can learn how to take full advantage of the longer blocks of time.



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Professional development and planning

Some schools also take advantage of additional time to allow more opportunity for professional development and planning. Three schools—Timilty Middle School, Young Achievers Science and Mathematics Pilot School, and Roxbury Preparatory Charter School—structure the weekly schedule around a longer school day for students Mondays through Thursdays, but operate an abbreviated day for students on Fridays. This arrangement leaves teachers a solid two- to three-hour time block in which to participate all together in professional development and curriculum-planning sessions.

At the Timilty Middle School, students are dismissed at 11:50 a.m. on Fridays. Teachers remain at school until 2:00 p.m. to participate in a collaborative professional development session with other teachers in the same subject area. Science teachers, for example, have dedicated time to review the alignment between state standards and each segment of their own curriculum to ensure proper pacing. Math teachers, meanwhile, have learned about technology applications for teaching middle school math. Similarly, at Young Achievers, teachers gather for planning and professional development from 1:30 p.m. to 4:00 p.m. on Fridays. During the first half hour teachers and other staff participate in a school-wide staff meeting, while the last two hours are reserved for teachers to meet in teams either by grade level or subject to plan and discuss curriculum.

At Roxbury Prep, teachers participate on Fridays in three different meetings from 2:00 p.m. to 5:00 p.m. For the first hour, teachers meet by discipline in what the school calls "inquiry groups." These groups focus on a specific topic each week. Topics are identified by the groups themselves and are intended to enhance teaching. Each week one or two teachers presents to the group about a possible teaching strategy or class activity and then leads a group discussion. The goal of these sessions is to develop teaching skills by examining a range of strategies for teaching specific types of material. The co-director responsible for curriculum development works closely with the group leaders each week to help plan the session. During the second hour, teachers meet in grade-level teams to talk about the progress (or struggles) of particular students and other issues affecting their classes. In the last hour, all the teachers come together to discuss school-wide issues. Teachers at Roxbury Prep find this time on Friday afternoons highly productive and feel strongly that it helps them to hone their craft.

Of course, the drawback to these Friday afternoon sessions is that students are not in school during this time. The schools do, however, make an effort to help families identify alternative programming for these afternoons. For example, when Young Achievers first changed its schedule to include early dismissal on Fridays, the school conducted a needs assessment of all families to find out what resources and supports families would require. Based on the response, the school found community centers that could offer Friday-only after-school care for the parents who wanted it, and established a formal connection with four different agencies to provide this care. Administrators also worked with the Boston Public Schools' transportation department to bus students directly to the sites on Friday afternoons.

Extracurricular and enrichment activities

As Figure 3 (page 10) shows, much of the extended-time (i.e., those hours that exceed the traditional 30 to 32.5-hour school week) is devoted to enrichment activities such as dance, drama, art, sports, apprenticeships, foreign languages, and experiential learning. Principals, parents and students alike believe that one of the advantages of an extended-time school is the wide range of activities that can be offered without compromising time spent on core academic subjects. These schools average roughly nine hours per week of enrichment programming compared to approximately four hours per week at most schools.

Some schools have chosen to concentrate on one specific extracurricular activity instead of offering a broad range of activities. For instance, KIPP Academy New York, which focuses on music, requires all students to participate in the school's string and rhythm orchestra. Other schools, like Young Achievers and the Murphy School, offer students a broad range of enrichment activities, from music lessons to engineering projects to chess, and often partner with community organizations or institutions of higher education to deliver these specialized activities. These schools tend to focus more on exposing students to many different enrichment areas and helping them to identify their own skills and interests over time. Table 3 shows the wide variety of extracurricular activities that take place during the school day at extended-time schools.

TABLE 3 **Activities, Electives, and Enrichment at Extended-Time Schools**

School	Middle School Weekly Activity Schedule
Community Day Charter School	• Students have two 50-minute PE classes • Students may elect to take instrument lessons during their daily recess
KIPP Academy New York	• 5th grade: two periods of PE, two periods of music, and two periods of electives (choices include sports, technology, art, and African dance) • 6th-8th grade: Orchestra four days per week for a total of 8-10 hours.
KIPP Academy Lynn	• Two 90-minute periods of "Challenge," a PE class that is focused on team building and goal setting • Four 60-minute elective periods (choices include step class, chess, basketball, art, and chorus)
*Murphy K-8 School**	• Two periods of PE, two periods art/music, and two periods of computers/research • 8-15 hours of electives (choices include instrumental music, computer lab, yoga, dance, an engineering program called "Destination Imagination", crochet, swimming, and French.)*
Roxbury Prep	• Two 50-minute PE classes and two 50-minute computer classes • Four 50-minute elective periods (choices include art, drama, engineering design, computer web design, Tae Kwon Do, world dance, knitting, instrumental music, soccer, basketball, softball, and field hockey.)
Timilty Middle School	• Eight 50-minute periods of electives (students chose two of the following each semester: art, dance, theater, Japanese, Chinese, or PE)
Young Achievers Science & Mathematics Pilot School	• One 45-minute PE class and one 60-minute art class • Approximately 4.25 hours of electives (choices include: hip hop/Latin dance, drumming, woodworking, chess, theater, introduction to photography, music technology, basketball, soccer, swimming, and golf)

**The Murphy School is an exception. Electives described take place during the extended-day program.*



A Unique Tutoring Model: Media and Technology Charter High School

The Media and Technology Charter High School (MATCH), an extended-time school in Boston, has incorporated an extensive tutoring program into its educational model. The 180 students at MATCH receive one-on-one or one-on-two tutoring from a designated tutor for at least 400 hours per year. In past years, MATCH hired work-study students from local colleges to provide this tutoring, but in 2004 MATCH stepped up its tutoring program by creating MATCH Corps. MATCH Corps is comprised of 45 recent college graduates hired to work full time at MATCH for one year, providing intensive tutoring to students. MATCH Corps tutors receive a monthly stipend of $600 and a free room in a dormitory built on the top floor of the school building, which MATCH owns.

MATCH Corps tutors are integrated tightly into the school. Tutors receive approximately 150 hours of training before school begins and work closely with teachers to plan for tutoring sessions. Teachers observe tutoring sessions daily to ensure that time is being used productively. MATCH Executive Director Alan Safran explains that the tutoring program has tremendous benefits. Because nearly all students enter MATCH below grade level in core subjects, the individual tutoring is essential to help them first catch up and then master new material. As recent college graduates, the tutors also become good mentors and role models for the high school students, who aspire to complete college themselves. Each tutor is assigned to only four students in the school and remains with these four students throughout the year, thus allowing tutors and students to forge strong relationships. Tutors then rely on this relationship to push their students to do their work and to persevere in this challenging, AP-for-All high school.

At each school, the weekly schedule has evolved over time to address the specific needs of its students and each school continuously revisits the schedule to ensure that it supports the school's overall goals.

Community-building activities and events

Some schools also take advantage of additional hours by convening special community-building activities and events. For example, many schools hold special whole-school meetings on Fridays. These meetings are designed to strengthen the sense of community within the school and to reinforce specific school values. Each Friday afternoon, Roxbury Prep ends the week with a 40-minute community meeting. The meeting is essentially student-run, though teachers and administrators help to organize it. A central event of the meeting is the awarding of the school's "spirit stick" to one deserving student. The winner of the "spirit stick" is selected by teachers based on his or her behavior and effort during that week. The meeting also features student presentations on academic lessons (e.g. poetry readings, science experiments, etc.), recommended books for independent reading, and skills learned through enrichment classes (e.g., songs, dances, art exhibits, drum performances, etc.).

Young Achievers also holds a 40-minute community meeting on Fridays where students share both positive and negative experiences they had during the week, make presentations on what they learned in class, and discuss various school issues. KIPP Academy Lynn ends its Fridays with a one-hour school-wide meeting called "Songfest." At Songfest, students compete in short academic contests to answer questions about material covered during the week. Songfest also includes 10-15 minutes of "shout-outs," an opportunity for students and teachers to briefly acknowledge someone at the school for something they did during the week. The meeting concludes with 15-20 minutes of songs based on academic material (such as social studies lessons, multiplication tables, science concepts, etc.) that students have learned in class. According to school founder and director Josh Zoia, "Songfest is an opportunity to end the week on a very positive note and to build school spirit. It is one of the things that makes kids love attending KIPP Academy Lynn despite the additional homework and longer school days."

The schedules analyzed for this report are hardly static. At each school, the weekly schedule has evolved over time to address the specific needs of its students and each school continuously revisits the schedule to ensure that it supports the school's overall goals. Schools agree that there is no magic amount of time. The schedules they develop must balance the available resources, student needs, and teacher capacity. At the same time, they do approach scheduling with a basic understanding that their schedules need to be developed around their learning goals, rather than starting with a fixed schedule and squeezing learning time into it. The result is that while each school uses the time in its school day differently, the teachers and administrators believe that it is the time over and above the conventional 180 six-and-a-half-hour days that results in more learning and higher achievement. The next section explores just how more time can impact student learning.

3 | Impact of More Time On Learning

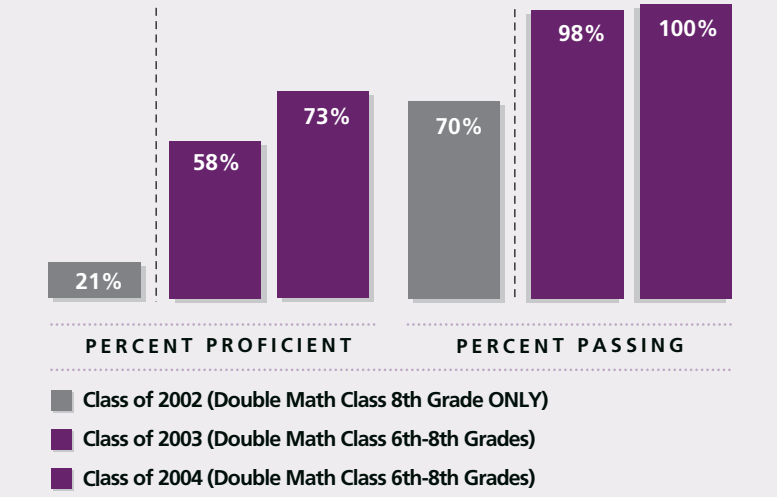
School leaders and policymakers who are considering adopting a longer school day are eager to understand how additional time translates into higher academic achievement. The extended-time schools examined through this research provide important answers to this central question. Classroom observations, and interviews with school leaders and teachers, revealed five key ways that additional time, if structured effectively, can promote student learning and achievement:

1. Increased "time on task"
2. Broader and deeper coverage of curriculum
3. More opportunities for experiential learning
4. Greater ability to work with diverse ability levels simultaneously
5. Deepened adult-child relationships

Increased time on task

Teachers at all of the schools examined through this research consider the additional time they have with students absolutely essential to helping students master the required material. Whether through extra classes, longer class periods, or individual tutoring sessions, students at these schools spend more time actively learning.

FIGURE 4 **The Impact of Double Math on Student Outcomes**
Percent of Roxbury Prep Students Achieving Proficiency and Passing 8th Grade Math MCAS *By Participation in Double Math Class*



Many teachers interviewed for this study felt strongly that one 50-minute math period per day, for example, is too little time both to provide remediation for students who enter the school behind grade level and to help students master the current year's curriculum. Teachers said that more time is required for all students to reach understanding, especially when new concepts are introduced. Further, students need time to practice what they have learned and to explore materials in different contexts before they can attain proficiency. At Community Day Charter School, teachers explained that with longer classes, if students are not grasping the concepts, teachers can back up a step or two and find different ways to approach the same material. Longer blocks of time also offer more opportunity for students to work on projects. "Generally the teaching quality is higher because we can build in more connections," explained one teacher.

School co-director Josh Phillips of Roxbury Prep points to quantitative evidence (Figure 4) that shows the effects on students in his school of spending additional time on math. Currently, Roxbury Prep students take two periods of math daily. However, students in Roxbury Prep's first graduating class (Class of 2002) did not have double math classes until their eighth grade year. In a comparison of test scores of this first class to the test scores of the class of 2003, which had had double math periods for all three years, 37 percent more students in the class of 2003 scored at the proficient level on the eighth grade math MCAS. This progress continued with the class of 2004, which had also participated in double math classes for all three years, and which had

Schools agree that there is no magic amount of time. The schedules they develop must balance the available resources, student needs, and teacher capacity.

"For a science teacher [longer classes] are a dream come true. You can do lots of labs. Now, [with the shorter class periods] it takes three days to complete a lab that we could have completed in one class."

— Teacher at University Park

52 percent more students scoring proficient than had the class of 2002. In addition, almost all students in the classes of 2003 and 2004 passed the eighth grade math MCAS, while only 70 percent of the students in the class of 2002 had passed the test. The dramatic improvement in test scores solidly affirmed Roxbury Prep's decision to require double math classes for all students and suggests that the pedagogical premise upon which this decision was based—more time equals more learning—is legitimate.

Longer class periods are particularly useful in science, because they allow time for labs and experiments to be completed in a single session. These time-consuming hands-on activities allow students to experience a concrete application of concepts being studied, to formulate and test hypotheses, and to become more deeply engaged in learning. The very existence of labs implies having time to set up and clean up. Moreover, for students to extract meaning from the lab, a teacher needs time to draw connections between the lab and the material he or she is teaching. A science teacher at University Park in Worcester explained, "For a science teacher [longer classes] are a dream come true. You can do lots of labs. Now, [with the shorter class periods] it takes three days to complete a lab that we could have completed in one class."

In schools that offer specialized tutoring sessions, students also spend more time on task. Teachers explain that these sessions are vital when students come into school behind grade level, especially if they are English-language learners and/or do not have access to adequate educational supports at home. In these cases, teachers explained that the opportunity to work individually or in small groups with students outside the classroom is one of the greatest benefits of the longer school day. At Roxbury Prep, teachers indicated that this tutoring is especially important because in the fast-paced atmosphere of the classrooms, teachers are not always able to address the needs of each individual student in class. Regular and designated times for tutoring, however, enable teachers to more effectively pinpoint material that is unclear to students and to help them work through it. The fact that most students enter the school scoring well below grade level on standardized tests suggests that such individualized attention is needed broadly.[15] The school has structured its eight-hour day to include more windows of time during which this individual tutoring can take place.

Broader and deeper coverage of curriculum

Another critical benefit of additional learning time is that teachers can use the time to cover material in greater depth and thus provide more context for what students are learning. Science and social studies teachers, in particular, explained that the extra time allows them to spend more time exploring the material. Students can ask more questions and the teacher can follow the students' interests by delving into more detail on specific topics. For example, when a particular event in history sparks students' interests, teachers can feed that interest by talking more in-depth about the topic and having students investigate further. "There is less pressure to move on to the next lesson," explained one teacher at the Timilty School. A teacher at University Park, a school which no longer has an extended-time schedule due to budget constraints, spoke wistfully about the years when she taught 90-minute classes. "The amount of material I could get through was amazing. You could introduce a concept, introduce primary sources to study it, have kids explore it in a group, and then come back and discuss the subject more in detail."

With more time, teachers also feel they do not have to make as many tough choices about what to cover in their classes. For example, some English teachers who had taught in schools with a conventional schedule expressed the frustration they often felt when they were forced to choose between reading and writing/grammar in their classes there. Teachers knew it was important to cover all of these areas each day, but there was no way to accomplish this within one 50-minute period.

More opportunities for experiential learning and enrichment programming

Many studies have shown that consistently attending after-school enrichment programs can decrease the academic achievement gap, especially among children from lower socioeconomic levels.[16] In addition, these activities help build 21st century skills and help prepare students for success in college and in the workforce. As author Richard Rothstein puts it, "The [academic] advantage that middle-class children gain after school and in the summer likely comes mostly from the self-confidence they acquire and the awareness they develop of the world outside their homes and immediate communities, from organized athletics, dance, drama, museum visits, recreational reading, and other activities that develop their inquisitiveness, creativity, self-discipline, and organizational skills."[17]

Many extended-time schools recognize the importance of these types of extracurricular and enrichment activities and devote a significant portion of the day to them. For example, at Young Achievers Science and Mathematics Pilot School, eighth graders participate in a community activism internship to complete their graduation requirement. This weekly, six-month internship involves students in community-development projects in order to demonstrate to students how they can apply their science, math, and technology skills to bring positive changes to their communities. At their placement at the Dudley Street Neighborhood Initiative, for instance, students developed a youth newsletter to inform their peers about land use issues in the Dudley Square neighborhood. Others worked with Habitat for Humanity staff to create ways for the children of families striving to own a home to become involved in that process. Young Achievers has also developed a wide number of partnerships with other organizations to furnish students with many experiential educational opportunities. Classes take frequent field trips with an educational focus—field trips that are only possible because of the extra time in school. For instance, fifth graders worked with the Roxbury-based organization Alternatives for Community and Environment (ACE) on a study linking pollution and asthma rates, and created public service announcements for local television programs. In addition, many classroom curricula incorporate environmental studies using the urban wilds located near the school.

But these activities are not self-contained. At Young Achievers, teachers often try to connect enrichment activities to core academic subjects. For example, students, who in their social studies class are studying slavery and the Underground Railroad are learning in art class about special quilt designs that were used during the Underground Railroad as a form of secret communication to runaway slaves. The designing of patterns also draws upon the skills they have gained through geometry class. The curricula are linked in order to help reinforce the lessons of each individual subject and to engage students more deeply. All elementary school students also take an African drumming class once or twice per week. The drumming teacher coordinates lessons with other teachers to include references to math, social studies, and English. Teachers argue that the drumming curriculum has a specific educational purpose and offers students a different point of entry into the curriculum.

At the Timilty School, all students are required to submit a project to the citywide science fair. At most Boston public schools, these projects are optional, and only a small fraction of the school's students choose to participate. The Timilty School faculty believes, however, that these hands-on projects offer critical learning opportunities that engage students more deeply in the science curriculum, and build skills, confidence, and knowledge. Thus, students spend time in science class planning the projects and exploring the concepts they are trying to demonstrate.



"I have students who are applying to college and come back here to middle school for recommendations. In many cases the students don't find teachers or other adults at their high schools who know them as well as we do."

— Teacher at Timilty Middle School

Academic Performance of Profiled Schools

Students at the extended-time schools profiled for this report generally out-perform students of comparable socioeconomic status at traditional public schools in their district.

For example, Figure 5 shows that, generally, the percentage of students achieving proficiency on MCAS at the four extended-time schools in Boston is higher than the percentage of students achieving proficiency throughout the district. This difference is even more dramatic in a similar comparison of students at Community Day Charter School to students attending the Lawrence Public Schools (Figure 6).

FIGURE 5 **Percent of Free and Reduced Lunch Students Achieving Proficiency on 2004 MCAS** *In Boston: Profiled Schools vs. District*

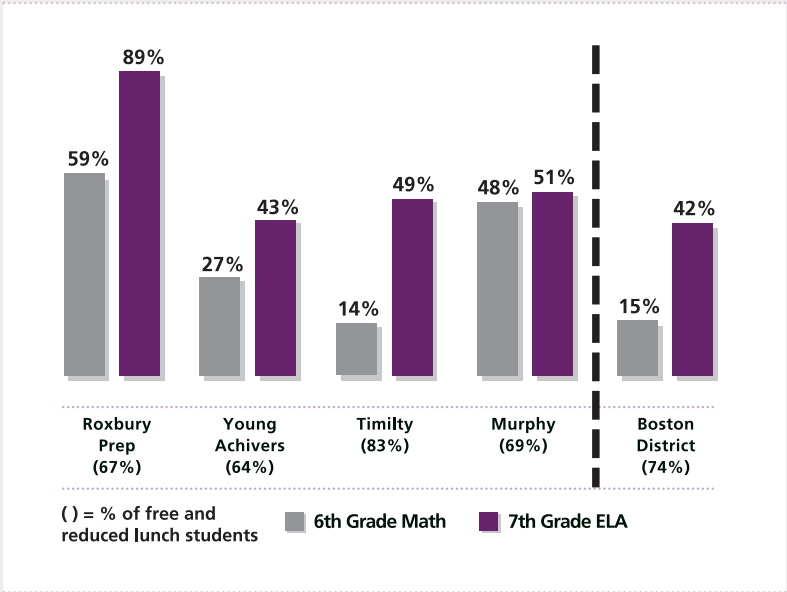


FIGURE 6 **Percent of Free and Reduced Lunch Students Achieving Proficiency on 2004 MCAS** *In Lawrence: Profiled School vs. District*

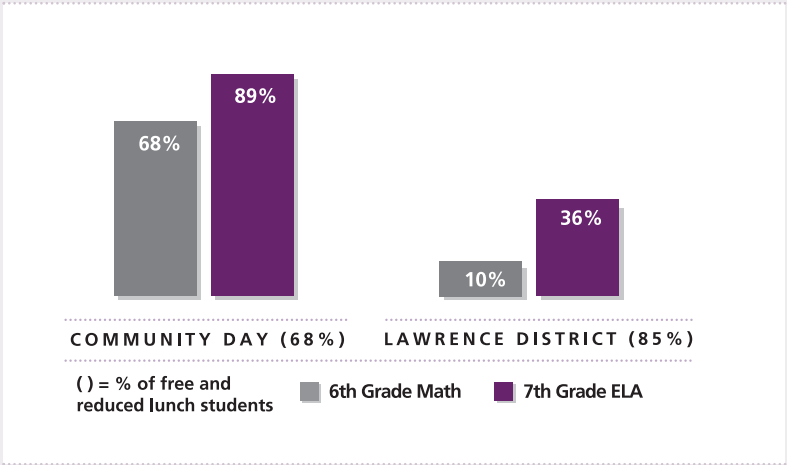
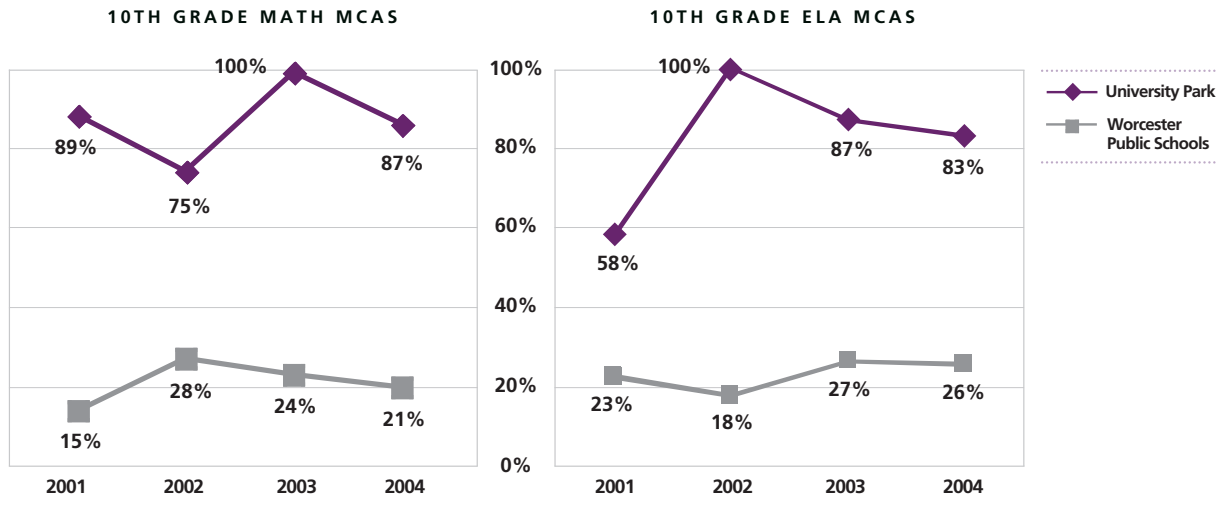




FIGURE 7 **University Park High School MCAS Performance**
Percent of Students Achieving Proficiency 2001-2004 (free and reduced lunch only)

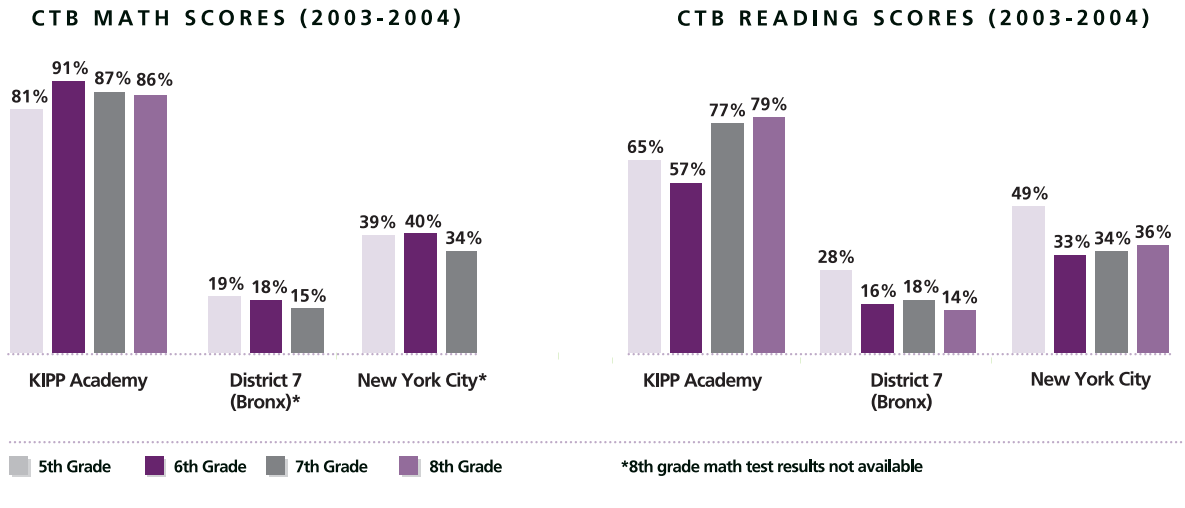


University Park High School in Worcester has also significantly outperformed other high schools in the district on MCAS, despite serving a higher number of free and reduced lunch students (Figure 7). Though University Park reverted to a more traditional schedule beginning with the 2002-2003 school year, scores have continued to remain strong; several teachers argue that these students are still benefiting from the additional academic assistance they received in earlier grades when the school did offer extended-time.

Students at KIPP Academy New York, who do not take the MCAS exam, also perform significantly better than students at other New York City Public Schools on a variety of other standardized tests. For seven years in a row, KIPP Academy New York, where approximately 95 percent of the student body qualifies for free and reduced lunch, posted the highest math and reading scores of all Bronx middle schools. Since 2003, the school has ranked in the top 10 percent of all NYC public elementary and middle schools on these tests. Figure 8 shows the academic performance of students at KIPP Academy New York compared to other students in the Bronx and in New York City as a whole.

Of course, a handful of examples do not prove definitively that extended learning time promotes higher academic outcomes for students. Many factors contribute to student academic performance and from this small sample size, we cannot isolate the impact of the extra time alone. Teacher quality, the influence of strong leadership, rigorous and continuous professional development, probably all contribute to the differences in academic performance. At the same time, many of the schools that boast stronger than average test scores do attribute much of their success to the additional time they offer compared to traditional schools.

FIGURE 8 **KIPP Academy New York Performance Compared to District and City Averages**
Percent of students scoring at or above grade level



"With longer classes every question is answered—no stone is left unturned. There is more individual attention."

— Student at University Park

Greater ability to work with diverse ability levels simultaneously

The additional time also appears to offer teachers the opportunity to address the wide disparity in ability levels that they often encounter in a classroom of 25-30 students. According to the teachers in these schools, some students catch on quickly to new material, some need additional explanations and repeated practice, while still others require one-on-one assistance or material presented in a number of ways to achieve full understanding. In focus groups, teachers repeatedly suggested that longer classes allow them to work across these various ability levels. The longer classes enable teachers to divide the class into groups, for example, with each group working on different activities based on its specific needs. The teachers can then spend more time with groups that need additional assistance while still ensuring that other students are engaged in learning. These teachers argue that opportunities for group work are more limited with a shorter class time.

There is also more time to present material in different contexts without sacrificing required content. Some students learn better visually, some students learn better through repetition and practice, while others learn best through hands-on projects. More time allows teachers to present material in a variety of ways and, thus, cater to a diversity of learning styles.

Finally, teachers and students explain that more time in class and in individual tutoring sessions enables all students' questions to be adequately answered by the teacher. As a student in University Park put it, "With longer classes every question is answered—no stone is left unturned. There is more individual attention."

Deepened adult-child relationships

Child development experts agree that students' healthy development and learning depends upon developing strong relationships with caring adults. Teachers can play a vital role in children's lives, serving not just as instructors but also as role models, mentors, and advocates. Through focus groups, students and parents alike repeatedly pointed to strong relationships with teachers as one of most positive aspects of their experience at the extended-time school. While their positive feelings may speak to the caliber of teachers working in the schools, these feelings are also likely bolstered by the long class periods teachers and students spend together and through the consistent contact students have with their teachers in a number of more informal contexts. At some extended-time schools, teachers play more roles than just that of a classroom teacher. They may lead special enrichment activities; they may tutor students individually; or they may monitor and assist in homework help sessions. This extra time, and the opportunity to see teachers in less formal contexts, seem at least partly responsible for the strong student-teacher bonds described at these schools. "I have students who are applying to college and come back here to middle school for recommendations. In many cases the students don't find teachers or other adults at their high schools who know them as well as we do," says one teacher from the Timilty Middle School.

4 | How Extended-Time Schools Structure Staffing

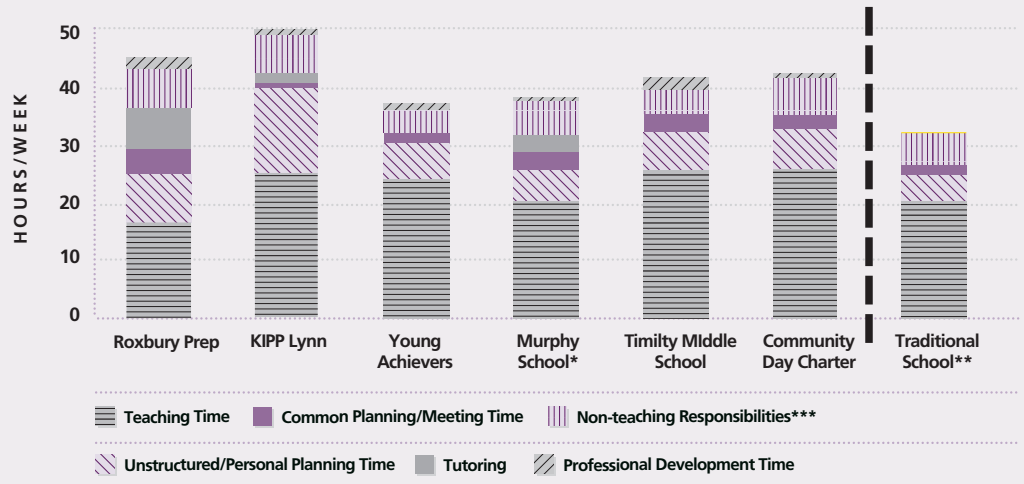
In order to operate for longer hours, extended-time schools must, of course, develop a staffing model that ensures staff coverage beyond the traditional six-and-a-half-hour day. For most schools this strategy involves:

- Paying teachers to work longer hours, and
- Integrating non-teaching staff into classrooms and forming partnerships with community organizations to offer enrichment activities

Teacher schedules

At most extended-time schools, teachers are required to work more hours than their peers in schools with conventional schedules. At the schools examined, teachers work between 6 and 18 extra hours per week, not including additional weeks in the summer at some schools. As shown in Figure 9, not all of this additional time is spent teaching in the classroom. Teachers spend, at most, five more hours in the classroom per week than teachers at schools with conventional schedules. In several cases, teachers spend the same or fewer hours teaching. Instead, teachers at profiled schools generally spend much of the extra time tutoring students, supervising enrichment activities, participating in professional development and group planning sessions, and planning their own classes.

FIGURE 9 **Teacher Schedules at Extended-Time Schools**



**Calculated for teachers who teach in the school-run extended-day program **Based on a sampling of districts in Massachusetts ***Includes supervision of arrival, dismissal, lunch, recess, and enrichment activities*

As discussed in Chapter 2, the Timilty School, Young Achievers, and Roxbury Prep set aside roughly three hours every week on Friday afternoons for professional development, common planning, and staff meetings. This uninterrupted block of time is possible only because of the extended schedule. At four of the six schools presented in Figure 9, teachers are allotted almost twice the amount of personal planning time as teachers at traditional schools. Teachers treasure this time and consider it integral to their effectiveness in the classroom, as it allows them to prepare for classes, review and revise curricula to better address student needs, and plan special projects that can help reinforce learning.

Roxbury Prep caps the time teachers spend in the classroom at about four hours per day, even though students are in school for more than eight hours. Teachers explain that this manageable teaching load (four classes and a total of approximately 70-80 students) allows them to make sure all their students are progressing, and that it makes the job much less overwhelming. During this time teachers have other responsibilities. For example, they are expected to tutor individual students, work with other teachers to plan curricula, contact parents to discuss student performance, plan their own classes, grade papers, or, in some cases, teach an enrichment activity such as drama or chess.

Teacher compensation

In almost all cases, teachers receive additional compensation in the form of higher salaries or special stipends for these additional hours.

District schools generally compensate teachers based on a rate negotiated with the teacher unions. At the Timilty School, for example, teachers are paid the Boston Teachers' Union contracted hourly rate of $34.68 per hour. This rate is standardized, meaning that every teacher, regardless of seniority, is paid the same per hour. For Timilty teachers, the eight additional weekly hours accrue to an annual total of approximately $10,000 more. A similar stipend is calculated for those teachers at the Murphy School who opt to work in the extended-day program. Because some of these teachers choose to work only a few days per week, teacher stipends for the extended-day program at the Murphy School vary considerably. Stipends are roughly $10,000-$11,000 a year for an extra 12-15 hours per week.

Other schools simply increase teacher salaries by a set percentage to account for the additional time. KIPP Academy Lynn, for instance, calculates teacher compensation by using the Lynn School District's salary schedule to establish a base salary and then adding 20 percent. While teachers are required to work more than 20 percent more hours per week than teachers in the Lynn public school system, the school has found in its first year that a salary 20 percent higher than the comparable district salary, when combined with other benefits, is sufficient to recruit and hire talented teachers.

TABLE 4 **Comparison of Teaching Requirements and Compensation across Extended-Time Schools**

School	School Type	Hours Teachers Work per Week	Average Classroom Hours per Week	Average Years Teaching Experience	Additional Pay Above District Salary Schedule
Community Day Charter School	State Charter	42	26	8	0%
Roxbury Prep	State Charter	45 plus 3 wks in summer	17	5	0%
KIPP Academy Lynn	State Charter	50 plus 4 wks in summer	25	6	20%
Murphy K-8 School	District Public	45*	20	20	16%*
Timilty Middle School	District Public	42	25	8	14%
Young Achievers	District Pilot	35-38**	24	10	0%

**At the Murphy School work in the extended-day program is optional. The numbers shown refer only to teachers who choose to do so. **Because of different student schedules, Young Achievers elementary school teachers work 3 hours less per week than middle school teachers.*

The University Park Campus School also used this strategy to set teacher compensation when it opened as an extended-time school in 1999. Because University Park is a district public school, the Worcester public school system negotiated with the local union a higher rate of pay to reflect the extra hours worked. Ultimately, the union and the school system settled on a rate of 19 percent more than the standard Worcester public school salary schedule. This 19 percent increase was not proportional to the amount of additional time, as teachers at University Park were required to work approximately 30 percent more time, but teachers expressed satisfaction with the negotiated salary rate.

While most of the extended-time schools examined pay their teachers for the additional time they work, two charter schools do not. Roxbury Prep and Community Day Charter School try to offer competitive salaries for their teachers, but also claim to attract teachers to their schools through non-monetary benefits. Roxbury Prep believes it attracts teachers through its more manageable teaching load and its intense focus on professional development. Community Day Charter School offers a team teaching model that assigns both an experienced teacher and a new teacher to one class of 25-30 students. This team approach provides an opportunity for continuous professional development as teachers learn from and critique one another. Many teachers, particularly new teachers, feel less isolated than they would teaching on their own.

Supplemental staff, staggered schedules, and community partnerships

Another approach to staffing a longer school day is to hire supplemental staff to cover some of the extra hours, and to stagger staff schedules so that no teachers are required to work more than seven hours a day. One practitioner of this approach is the Young Achievers school. In its schedule, all elementary school students attend from 9:00 a.m. to 5:00 p.m. Monday through Thursday and 9:00 a.m. to noon on Friday; all middle school students attend from 8:00 a.m. to 5:00 p.m. Monday through Thursday and 8:00 a.m. to noon on Friday. In this school's approach, regular elementary school teachers are hired to teach from 9:00 a.m. to 4:00 p.m. Monday through Friday, and middle school teachers are hired to teach from 8:00 a.m. to 3:30 p.m. Monday through Friday. A second group of staff, who are either specialist teachers or paraprofessionals, begin work at 11:00 a.m. and stay until 5:00 p.m. when all students are dismissed. Between 11:00 a.m. and 3:00 p.m., paraprofessionals work alongside teachers and provide support in their classes; after 3:00 p.m., the paraprofessionals and specialists continue to work with students after the regular teachers leave the school. After 3:00 p.m., instruction in core academic classes ends but all students stay at the school to participate in homework help and enrichment activities or clubs. Paraprofessionals lead some of these activities, or help supervise if there is a specialist teacher in charge.

To lead enrichment activities, many schools also hire staff from the community who have special skills or expertise. In some cases, schools form partnerships with community organizations that provide these services at low or no cost to the school. Young Achievers, in particular, relies a great deal on community partnerships to augment its programming. Through a partnership with the Metropolitan Opera Guild's Urban Voice Choral Program, students in grades one through eight are able to participate in weekly choral classes. Last year, the National Foundation for Teaching Entrepreneurship led a weekly course in business concepts for 19 seventh graders, and helped students to start their own businesses. Another program called Young Naturalists is run by two parents, and offers second and third graders the opportunity to study agriculture and the natural environment. Students frequently take trips to the Arnold Arboretum and other local areas.

5 | Financing A Longer School Day and Year: Opportunities and Challenges

The first questions school leaders and administrators pose when presented with the concept of extended-time schools are: how much does the extra time cost, and how does the school pay for it? The extended-time schools profiled for this project indicate that there are a number of strategies for financing the additional hours. Most schools rely on a combination of public and private funds, and are extraordinarily creative in forging partnerships with outside organizations, leveraging existing resources and identifying external funding sources in order to collect the extra money it inevitably costs to fund a longer school day and year.

How much more does an extended-time school cost?

Pinpointing the actual cost of operating an extended-time school is difficult because each school and school district operates differently. The extended-time schools profiled here have different program and staffing models, offer different amounts of time, and are subject to very different regulations about staffing and teacher pay (i.e., some are charters, some are pilot schools, and some are traditional district public schools). These are all factors in determining overall cost. Because they use very different budgeting processes, the costs of extra time at extended-time district schools and at extended-time charter schools are discussed separately below.

Most schools employ a combination of public and private funds, and are extraordinarily creative in forging partnerships with outside organizations, leveraging existing resources and identifying external funding sources.

FIGURE 10
Increase in Cost vs. Increase in Time at Extended-Time Schools

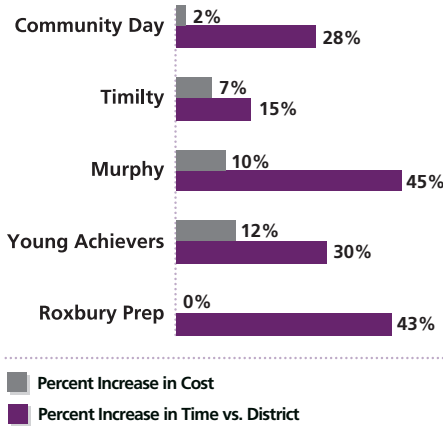
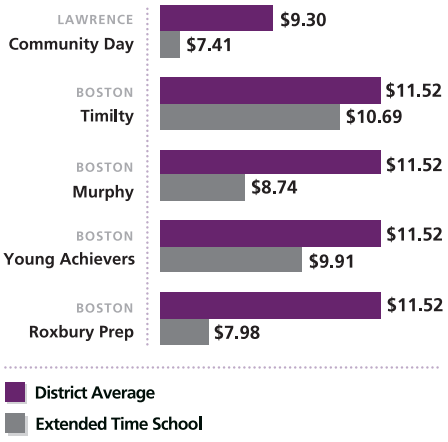


FIGURE 11
Cost per Student Hour Extended-Time Schools vs. District Schools



District schools

The cost of the expanded schedule at three of the district-run extended-time schools ranges between $900 and $1,500 per student, depending on the amount of additional time offered and the staffing strategy used to cover that time (Table 5).[18] These estimates are based on the school's own calculation of the expenses associated with operating for longer hours than other schools in the district.

As shown in Figure 10, even as these schools do cost more to operate than schools with shorter days, the increase in cost is not directly proportional to the time added. Even though these schools spend from 7 percent to 12 percent more per student, they are serving students for 15 percent to 45 percent more time. Analyzing the budgets of the extended-time schools by a "cost-per-student hour" metric (i.e., dividing the cost per student by the total number of hours the students attend school) confirms this point (Figure 11). Cost efficiencies in extended-time schools appear because what primarily drives the rise in cost is the increase in teacher pay (in accordance with the additional hours they work). Other school-related costs (facilities, administration, books, transportation, healthcare benefits, etc.) either do not increase, or do not increase as much. With only one budget element rising to any significant degree, the aggregate budget does not grow in direct proportion to the added time. Therefore, school leaders, superintendents, and policymakers who are considering lengthening the school day or year do not need to assume that their costs will rise in direct proportion to the time added. For example, it will almost certainly not cost 30 percent more to lengthen the school day by 30 percent.

TABLE 5 **Cost of Additional Time at District-Run Extended-Time Schools (FY 2004)**

	Young Achievers	Murphy*	Timilty
Total Additional Cost	$466,904	$381,000	$600,000
Number of Students	303	307	661
Additional Cost per Student	$1,541	$1,241	$908
Percent above District Average	12%	10%	7%

**Data for Murphy School reflect costs only for the 307 students participating in the extended-day program (with three additional hours per day for each student) **Percent above district average is the percent above FY04 per-pupil spending in Boston ($12,784), which is calculated using data from the Massachusetts Department of Education. District per-pupil expenditures include all federal, state, and municipal funding, but do not include capital expenditures.*

Charter schools

The difference in cost between the extended-time charter schools profiled in this report and traditional public schools in their district is more complicated to analyze because the charter schools do not operate under the budget standard set by a central administrative structure and do not break out the costs of operating for a longer school day. Rather, their costs are simply calculated as the costs of the whole school, not the costs of a standard six-and-a-half-hour day plus whatever it costs to operate the school beyond that standard. In addition, charter schools' cost structures are very different from those of district schools. The only method for approximating the cost of the additional time is to compare these schools' per-pupil expenditures (PPE) to those of schools in their districts. This method, as indicated in Table 5, was used for two of the charter schools profiled, Roxbury Prep and Community Day Charter School.[19] Here PPE seem to be roughly comparable to PPE at regular district schools, even though the charter schools offer a substantially expanded schedule (respectively, 43 percent and 28 percent more time than district schools in Boston and Lawrence).[20]

These charter schools are able to offset the costs of operating for longer hours with other cost savings that are not necessarily available to district schools, such as lower teacher salaries (resulting primarily from a teaching corps with fewer years of experience), and lower costs for transportation, and some administrative overhead.

How schools raise the additional funds

Extended-time schools use a variety of strategies to cover the cost of operating for additional time. Some strategies include:

- Securing special allocations from the district to supplement the budget
- Raising external public and private funds
- Building partnerships with outside organizations
- Implementing creative budgeting practices to leverage existing resources

Most schools need to use a combination of these strategies to fund their programs.

TABLE 6 **Difference in PPE at Charter Extended-Time Schools vs. District Schools (FY 2004)**[21]

	Including Facility Costs		Excluding Facility Costs	
	Roxbury Prep	Community Day	Roxbury Prep	Community Day
Cost per student	$13,572	$11,377	$12,708	$10,960
District PPE	$13,926	$11,575	$12,784	$10,709
Difference	($354)	($198)	($76)	$251
Percent above or below district PPE	(2.5%)	(1.7%)	(.6%)	2.3%

SECURING SPECIAL ALLOCATIONS FROM THE DISTRICT

Though this happens relatively rarely, some schools receive special allocations from their districts in order to operate on an extended schedule. When University Park was created in 1997 as a partnership between the Worcester Public Schools and Clark University, it was conceived as an extended-time school that would provide students in one of Worcester's poorest neighborhoods, Main South, with the best possible education. Worcester Public Schools committed additional funding to the school to cover the 19 percent increase in teacher salaries in order to staff an eight-hour school day. Unfortunately, despite the school's success—the Rennie Center named the school the "only high-performing non-selective urban public high school in Massachusetts," and the school was ranked 68th among top-performing high schools in the United States by *Newsweek* magazine[22]—University Park lost the additional funding beginning with the 2002-2003 school year when the Worcester School Committee voted to cut extended-time programs in all schools throughout the district. Without this funding, the school was forced to revert to a traditional six-and-a-half hour school day.

Similarly, when the Timilty Middle School became an extended-time school in 1987, it received a special budgetary allocation from the Boston Public Schools to cover the costs of the additional time. This allocation, approximately $600,000, funded stipends for teachers. In 2004, this funding was cut due to budget constraints. The school was able to remain an extended-time school by raising the additional $600,000 from private sources. Recently, Boston Public Schools has agreed to cover half the cost of the additional time; the Timilty School is continuing to raise the other half from private sources. Starting with the 2005-2006 school year, Young Achievers will also receive a special district allocation of $250,000 to help cover the costs of its extended schedule.

Because it does not require extensive fundraising, a special allocation from the school district may seem an ideal source of funding from a school's perspective. Special allocations can be particularly precarious funding sources, however. Because districts must maintain equity across the system, they are often forced to cut these funds during difficult budget years.

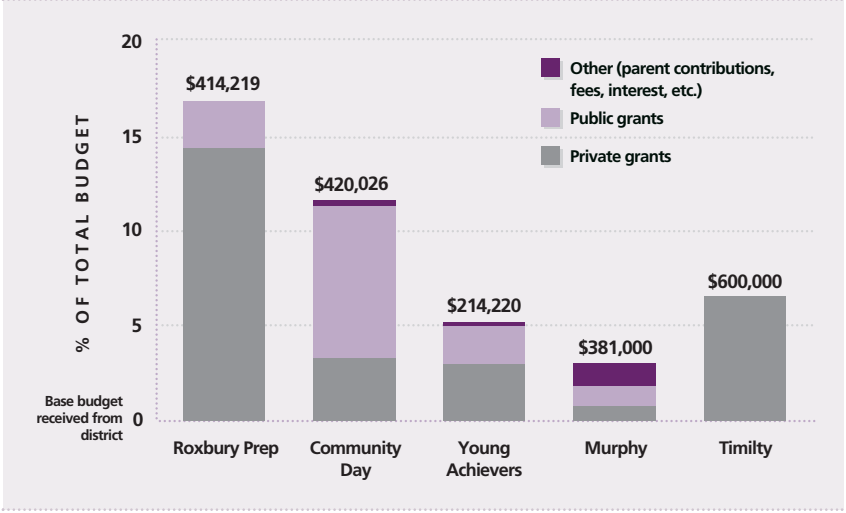
School leaders, superintendents, and policymakers who are considering lengthening the school day or year do not need to assume that their costs will rise in direct proportion to the time added. It will almost certainly not cost 30 percent more to lengthen the school day by 30 percent.

RAISING EXTERNAL PUBLIC AND PRIVATE FUNDS

Many of the extended-time schools studied for this report have sophisticated fundraising operations, and raise anywhere from eight to 23 percent of their total budgets from external public and private sources. Public funds are generally accessed through competitive state or federal grants. The 21st Century Community Learning Center Grants, a competitive grant program of the Massachusetts Department of Education, provides $80,000 per year to individual schools to operate programming after the traditional school day ends. While schools usually utilize these grants to fund optional after-school programs, some schools, like Young Achievers, integrate the funding into the school budget to pay for a longer school day for all students. To support its extended-time program, the Murphy School has taken advantage of approximately $25,000 received through another competitive grant program operated by the U.S. Department of Education called the Safe and Drug Free Schools Program.

While charter schools traditionally rely on significant private fundraising to supplement the per-pupil allocation they receive from the state, district schools are also beginning to seek private funds to augment their program offerings. The three district schools studied for this project raise from $100,000 to $600,000 per year in private funds. Private funds come from local corporations, foundations, and individuals. Principals and supportive partners at these schools are adept at cultivating relationships with private funders and spend a significant amount of time on private fundraising. More and more funders are willing to fund innovative district public schools, if the school is able to show positive results. To accept private funds, these schools need to form affiliate 501(c)3 organizations or partner with community-based organizations that can serve as fiscal agents. Figure 12 shows that portion of the budget of each extended-time school which exceeds the budgets of conventional schools (based on per pupil allocation by the district or state) and how much of that portion comes from public and private sources.

FIGURE 12 **Sources of Additional Revenues FY 2004**



BUILDING PARTNERSHIPS WITH EXTERNAL ORGANIZATIONS

Some schools have forged partnerships with external organizations that provide special programming. None of these partnerships manages to cover a school's entire extended-time program, but the partnerships do broaden the types of activities and enrichment opportunities that schools can offer. For example, at no cost to the school or to students, the Murphy School is able to offer violin lessons (through a partnership with the Boston Arts Academy) and dance lessons (through a partnership with the TOPF Center for Dance Education). Through a similar partnership with Historic New England, a historic preservation organization that operates educational programs in schools, the Murphy School offers a photography course using the history of Boston as a theme of the curriculum. A program director at the Murphy School develops and manages these relationships and serves as the main line of communication between the partner organization and the school. Mary Russo, principal of the Murphy School, pointed out that many potential partners could operate such programming, bringing in resources at no cost to the school. The school principal or other staff usually needs to invest time in researching and courting these partners. In many cases, the partners approach the school first, but partners will look elsewhere if the school is unresponsive or does not demonstrate a genuine commitment to the partnership. Sometimes, Mary Russo noted, principals and other school staff can be too busy to respond to such opportunities.

The strong relationship formed almost a decade ago between University Park Campus School and Clark University in Worcester is an example of the tremendous benefits schools can reap from partnerships with higher education institutions. Clark University was a key partner in creating University Park. The university assisted in the planning of the school and provided expertise from Clark's Hiatt Center for Urban Education. During its first two years of operation, while it awaited its own school building, the school was even located on Clark's campus. Today, Clark graduates and undergraduates serve as student teachers and volunteer as tutors. University Park students have full use of Clark's gym and library, and juniors and seniors are even able to enroll in classes at Clark free of charge.

Clearly, such partnerships can be quite fruitful and contribute a great deal to a well-rounded education for the school's students, but they also require significant management and oversight. School leaders explained that it is best if a single individual manages all outside partnerships to avoid confusion and conflicts. At the Murphy School, a full-time program director manages partnerships; the principal maintained that the school's partnerships would not be possible without the organization and coordination of the program director. Administrators also explained that in order to stay focused on their educational missions, they need to carefully assess which partnerships to enter, taking into account the school's needs and capacity. Too many partnerships could be overwhelming to the school, diluting, rather than enriching, the curriculum.

IMPLEMENTING CREATIVE BUDGETING PRACTICES TO LEVERAGE EXISTING RESOURCES

While existing resources are not sufficient to lengthen the school day significantly, some schools have found ways to leverage funds in their current budget to cover some of the additional costs. In some cases, school budgets are flexible enough to allow principals to shift resources and use funds budgeted for other purposes. In Boston, for example, principals may use funds allocated in their annual budget for specialists (such as art, music, physical education teachers), and other specialized positions (such as student support coordinators, library aides, assistant principals, registrars at the high school level) to cover some of the costs associated with a longer school day. Most often these funds are directed toward teacher stipends for longer hours. Schools that receive Title I funding, a federal entitlement grant provided to schools based on the number of low-income students served, can sometimes leverage this funding to support a longer school day. Title I funds are relatively flexible in how they can be used; some schools use them to cover the cost of paying teachers for the extra hours worked.

Another strategy for leveraging existing resources is to arrange for a later start time for specialists and some paraprofessionals, so that these staff cover classes during the last part of the day, enabling regular teachers to work just their contracted hours. Using this strategy, Young Achievers estimates that nearly 60 percent of the cost of its longer school day is financed by the regular budget allocation received from the Boston Public Schools. This allocation is not significantly different from the allocations of other schools but because Young Achievers is a pilot school, it maintains the legal autonomy over staffing and budgeting required to leverage existing resources to fund an extended-time school model.

While existing resources are not sufficient to lengthen the school day significantly, some schools have found ways to leverage funds in their current budget to cover some of the additional costs.

"At first the idea of extended day was horrible but teachers brought material to life. Sometimes you didn't realize that it was a 90-minute class. You wished you had more time because you were having fun in class. With longer classes you could learn more material and learn the subject in depth."

— Student at University Park

6 | Reactions Of Students, Parents, And Teachers To Extended-Time Schools

As part of its site visits to the profiled schools, Massachusetts 2020 conducted focus groups with students, teachers, and parents to better understand how these constituencies feel about their involvement in an extended-time school. The focus groups revealed that across all of the schools profiled, students, teachers, and parents are highly enthusiastic about the longer school day. Students generally value the additional academic support and the wide range of enrichment activities their schools offer. Teachers appreciate the additional class time, which allows them to ensure their students are learning, and the additional time they have for planning and professional development. Parents are grateful to have their children engaged in a safe, positive environment while they are working, and many note strong improvement in their children's attitude and performance in school. Each group warns however, that the extra time must be productive, organized, and thoughtfully planned. Despite this overwhelming support, information collected through these focus groups cannot be considered statistically significant data on student, teacher, and parent satisfaction, as Massachusetts 2020 conducted no large-scale survey of these groups.

Students

Perhaps most surprisingly, students themselves are strong proponents of an extended-time schedule. At University Park, students actively protested at school committee meetings when the school was forced to revert to a traditional schedule. Though it has been a few years since the existence of the extended-time schedule, current students in the eleventh and twelfth grades speak fondly of the extended-time program and argue passionately about its advantages. Dan, an eleventh grader at the school, explained, "At first the idea of extended day was horrible but teachers brought material to life. Sometimes you didn't realize that it was a 90-minute class. You wished you had more time because you were having fun in class. With longer classes you could learn more material and learn the subject in depth." Students at University Park are convinced that the extended day and longer classes provided better academic preparation. Jorge, a sophomore pointed out, "In every class all the teachers were focused on getting all the kids to the same place. Some kids fell behind after they took away the extra time. With something as important as MCAS, they shouldn't have taken away the extra time."

Even younger, less mature students are enthusiastic about the longer school day. As one Roxbury Prep seventh grader noted, "I thought it would be the worst thing ever but I got used to it. You just don't look at your watch. Having enrichment classes where you choose what you want to do helps a lot. It's not all work." When asked if it ever feels as if they have too much school, one eighth grader at Roxbury Prep responded: "No, I wouldn't be doing anything at home anyway. It keeps you out of trouble." Similarly, a fifth grader at KIPP Academy Lynn explained: "Before coming to KIPP, I mostly went home at 1:45 and watched TV. My parents weren't home. I was really bored. I don't miss that at all. Here we are having fun and being challenged." Students in all the focus groups also articulated the differences they had observed between their school and the schools some of their friends attended. Students often remarked with pride that they are far ahead of their peers in most subjects and that their friends at other schools often ask them for help with schoolwork. Students often feel "special" attending an extended-time school.

Teachers

Many teachers were equally enthusiastic about the benefits of an extended-time school because they believed their students truly needed the additional time. A teacher at the Murphy School, where only about one-third of the school's students participate in the extended-time program, explained that she wished all students had at least one more hour in the school day. "We feel guilty giving kids recess because we are losing time in class—but the kids need that time, too. With more time for everyone, the whole dynamic would be different. You wouldn't have to stop just when kids are getting into it. There is so much pressure to squeeze everything into a six-hour day, and it just doesn't fit."

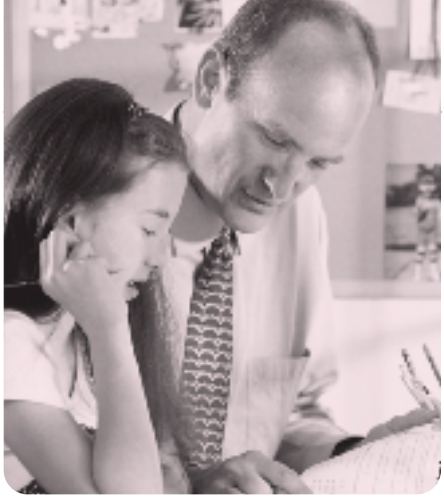
In focus groups, many teachers also commented that when they had not been working at an extended-time school, they found that they often stayed late anyway to work with students, prepare classes, and grade student work. With the longer school day, their actual hours spent working did not necessarily change very much; their full hours were just integrated into the formal work schedule.

Another point made consistently across teacher focus groups was how important it was to teachers that they were working in schools that helped them to perform their jobs effectively. If that meant working in a school with longer hours, the additional time was not necessarily a concern, particularly if they were compensated for it. A teacher at Roxbury Prep commented, "At Roxbury Prep you work very hard, but it feels better than at other schools; you know you are getting somewhere." For teachers across many of the schools, the sense of accomplishment, the professionalism and administrative support, and the overall teaching environment were all part of the school culture, as much as the additional time.

These comments from teachers highlight how important other benefits are to attract qualified teachers to extended-time schools (or any schools for that matter). These benefits can include:

- A sense that their ideas and concerns are addressed
- The opportunity to team with other teachers to identify solutions, and a sense of camaraderie with other teachers
- Support and respect from the administration
- Strong instructional leadership and professional development
- A sense of success or efficacy in helping students learn and grow
- A strong discipline system so that teachers can focus on teaching rather than on classroom management

Teachers also emphasized that teaching in an extended-time school may not be for everyone because the additional hours can make a difficult job even more demanding.



For teachers across many of the schools, the sense of accomplishment, the professionalism and administrative support, and the overall teaching environment were all part of the school culture, as much as the additional time.



"At other schools you don't always get the extras—music, gym, and art—because you don't have time. Here the kids get so much more than academics. They don't get bored—because of the extra-curricular activities."

— Parent of Student at Timilty Middle School

Parents

In focus groups, many parents indicated that the schedule was one of the factors that first drew them to the extended-time school. As working parents, they appreciated the longer school day, and felt that the additional school hours used their children's time after school more productively than either sitting home alone or participating in a less structured after-school program. Some parents were also attracted by the additional academic assistance their children would receive at the extended-time school. Parents expressed excitement that teachers were spending the time needed to help children progress academically. Other parents found the enrichment activities to be of real value. "At other schools you don't always get the extras—music, gym, and art—because you don't have time. Here the kids get so much more than academics. They don't get bored—because of the extra-curricular activities," observed one Timilty Middle School parent. A parent at the Murphy School praised the extended-time program for its success in developing children's social skills. "With all the enrichment and extracurricular activities at the school, students have more opportunity to work together collaboratively and experience teamwork. These things are an important part of school, but they are always being cut out of the regular school day," she explained.

The overwhelming demand for these schools is another indicator of parents' willingness to embrace an extended-time school model. For example, the three Boston schools examined for this project—Young Achievers, the Murphy School, and the Timilty School—rank among the five most-requested schools in the city.[23] Each of the charter schools—Roxbury Prep, KIPP Academy Lynn, KIPP Academy New York, and Community Day—have long waiting lists. This year Roxbury Prep Charter School had 153 applicants for only 75 spots. Community Day Charter School had only 10 openings this year, yet maintains a waiting list of 832 students. While parents' interest in these schools may be sparked by other factors, clearly the extended-time schedule is not a deterrent to enrolling their children.

Of course, many parents conditioned their approval of extended-time schools on the overall quality of the school. Parents explained that they were pleased with the extended-time model at their children's school because their children were stimulated and the teachers were highly qualified. If this were not the case, most explained, they would not be in favor of a longer school day. Parents also emphasized the importance of choice in selecting an extended-time school. Parents explained that while they deliberately chose the longer school day, it might not be a good fit for all families.

7 | Time Alone Is Not Enough: Other Characteristics Of Successful Schools

Simply adding extra hours to the school day will not transform a failing school into a successful one. Most school leaders characterize extra time as necessary but not sufficient by itself to produce the results they expect from their students. As Josh Phillips, Co-Director of Roxbury Preparatory Charter School cautioned, "Before schools consider adding a seventh and eighth hour in the day they need to make sure they are making good use of the first six; otherwise it won't have much impact."

Therefore, it is important to highlight some of the other non-time-related characteristics that make many of the extended-time schools studied for this report successful. Trying to add extra hours without also taking into account these other elements of success would be unlikely to yield positive results.

Interviews, focus groups, and class observations at the extended-time schools revealed five key features—in addition to the extended schedule—that helped these schools to reach their professed goals and to produce strong student outcomes. These five features are:

- Strength of leadership
- Focus on professional development and teaching quality
- Use of data to drive continuous improvement
- Positive school culture
- Effective family engagement

Strength of leadership

It is no mystery to the business community that having a skilled and effective CEO is fundamental to the success of any company. Likewise, a strong, visionary principal stands at the center of every truly successful school. The challenge of leadership is particularly poignant in urban public schools that serve a high percentage of low-income and special needs students. In focus groups with teachers at two of the profiled schools, when teachers were asked what made that school most different from other schools where they may have worked, without hesitation, they answered, "the principal." Successful principals are able to set high expectations for teachers and students; convey a compelling vision for the school's success; create a work environment for teachers that is stimulating, supportive, and rewarding; and leverage and attract resources to support the school's needs. While effective school leaders need training and experience, they must also possess a number of more intrinsic qualities, such as a passion for learning and for children, a drive for excellence, strong communication skills, and the ability to motivate others. The principals who are most effective appear to derive their success from a complex blend of personality, experience, training, management style, and vision.[24]

Focus on professional development and teaching quality

Successful schools also place extraordinary emphasis on teaching quality.[25] From the initial hiring process to teacher evaluation and professional development, these schools have given much consideration to how they recruit, hire, and develop outstanding teachers. Mary Russo, principal of the Murphy School, 2004 Massachusetts Principal of the Year and a National Distinguished Principal, described how she tries to spend as much time as possible sitting in on classes and offering teachers her feedback. Teachers explained that they find this type of feedback incredibly helpful, as it gives them new ideas for how to approach material and manage their classrooms. It also sends them a clear message that their teaching improvement is central to the school's mission. Leaders at Community Day Charter School also observe classrooms frequently, a

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The leaders of these extended-time schools attribute their success in large part to a strong, positive school culture that they have spent considerable time and effort working to promote.

practice that is made possible by having three school heads, one for each of the three schools: the Early Learning Center (pre-K-1st grade), the Lower School (2nd-5th) and the Upper School (6th-8th grade.) Each of these three heads of school is able to devote a significant amount of time to professional development and instructional leadership, and works closely with teachers to plan curricula, monitor student performance and identify new teaching strategies to support struggling students. Teachers in focus groups spoke highly of the support and guidance received from the heads of school.

Similarly, Roxbury Prep operates with two co-directors, rather than one principal, to allow one co-director to focus primarily on instructional leadership, while the other handles many of the more administrative aspects of school management. Teachers at Roxbury Prep receive tremendous guidance and support from the instruction-oriented co-director as well as from other teachers at the school. The overall effect of this institutional focus on teaching and professional development is to create a culture of healthy critique and continuous improvement.

Young Achievers also places a heavy emphasis on professional development, particularly in place-based experiential education. Young Achievers' teachers are in the third year of a five-year plan to develop experiential education units of study embedded in the local environment. Teachers are working to develop multidisciplinary learning activities that integrate many academic subjects into long-term projects that include field trips, visits from outside experts, and hands-on activities. Young Achievers believes implementing project-based learning will boost student interest and engagement in core academic subjects. The school recognizes that professional development is necessary to help teachers develop the skills and expertise to implement this type of curriculum.

Use of data to drive continuous improvement

Another vital factor in school success is the use of data to drive continuous improvement in teaching and learning.[26] Extended-time schools in which students perform particularly well on MCAS set clear goals for student performance, actively measure student progress toward these goals, and hold themselves accountable for expected results. At the Murphy School, where students score well above the district average on MCAS, the principal and assistant principal carefully analyze student data to identify areas in which students may not be receiving sufficient instruction. They review all students' test results to highlight patterns in the types of questions students seem to answer incorrectly on MCAS. For example, if a significant percentage of students answered specific types of word problems incorrectly, school leadership together with teachers might conclude that students need more exposure to such problems or that new teaching strategies are needed to help students master them. In short, they incorporate MCAS as a dynamic diagnostic and measurement tool within their teaching structure to help ensure students are learning the required material.

At Community Day Charter School, where every sixth, seventh, and eighth grade student passed the math and ELA MCAS in 2004 (as much as three times the passing rate of other Lawrence public schools), the school hired a full-time data analysis manager to work with teachers to help them understand and interpret MCAS data. This manager has now developed a full system of analysis through which, in late summer, each teacher receives the MCAS performance history of the students they taught the previous year as well as that of students coming into their class new in the fall. Each student's test has been analyzed according to the type of question (e.g., essay, multiple choice, etc.) and by specific content standard (e.g., fractions, numeration, reading comprehension, etc.). The head of school also receives the same data for all the students in the school, along with an analysis of student trends for the previous three years. This data analysis system is so valuable that the school is now marketing it to other schools throughout the state.

At Roxbury Prep, in addition to taking MCAS, students undergo a diagnostic test in each subject—designed by the Roxbury Prep teachers—at both the beginning and the

end of the year. The entire curriculum plan for each subject is then focused on helping students master the material to be covered on the year-end subject test. The tests are important tools that help to measure how well each teacher has covered the material.

Positive school culture

Many of these school leaders attribute the success of their extended-time schools in large part to a strong, positive school culture that they have spent considerable time and effort working to promote. While it is difficult to define or dissect "school culture," interviews with school leaders and teachers indicate that the term is used most frequently to describe a climate or environment that is consistently supportive, safe, and focused on learning at every level of the institution. This culture does not emerge magically from some accumulated sets of activities, but demands enormous effort to build and maintain. It is established through specific events (e.g., community meetings) and policies (e.g., consistently enforced rules of behavior), as well as through more subtle modes of behavior (e.g., teachers modeling good conduct, discussing values, and providing positive reinforcement.) All of these strategies blend together to send very clear and uniform messages about the expectations of the school.

At KIPP Academy Lynn, the core school values are no mystery, even to an outsider. Prominently posted on every wall of every hallway and in every classroom are the simple phrases "Work Hard" and "Be Nice." Students quickly see that these phrases are not hollow, but infect every minute of every day in the school: anything other than hard work and respecting other students is unacceptable. To help reinforce school values and expectations KIPP has developed a reward system that encourages specific behaviors such as hard work, kindness, cooperation, concentration, and leadership. At KIPP Academy Lynn students receive on Fridays a weekly "paycheck." The "paycheck" awards a specific number of points or "KIPP dollars" to each student based on his or her overall effort and behavior during the week. These points can then be traded in for various items at the school store (such as notebooks, pens, snacks, or small toys) or for special trips and privileges. The school maintains a running total of each student's total paycheck points. At the end of the year, only students who have accrued a certain minimum level of points are able to participate in special trips and activities. Teachers and administrators at the school have found the "paycheck" system enormously valuable for helping students understand what is expected of them and helping them gain a sense that, as one school slogan puts it, "good things happen when you do the right thing."

Roxbury Prep uses a similar system of "creed deeds" and "demerits." "Creed deeds" are points awarded for behavior that exemplifies the school creed—a set of core values that is posted prominently in the front hallway. Creed deeds can be traded in for supplies and special privileges. Each month the student with the most creed deeds gets to have one of the two school directors serve as his or her assistant for the day—carrying books between classes, getting lunch, holding doors, etc. "Demerits," by contrast, are assigned for negative behaviors and have clear consequences: three demerits result in one after-school detention, six demerits result in two after-school detentions, and nine or more demerits result in a three-hour detention on a Friday. Roxbury Prep Co-Director Dana Lehman explains that a tight discipline policy also keeps students more focused on learning and allows teachers to do their jobs.

Two schools, the Timilty Middle School and Roxbury Prep, have found that insisting that students pass silently in the hallways when they switch classes during the day helps to maintain a focus on learning and convey a sense of order and discipline. Teachers and administrators at both schools realized that when students were allowed to talk and roam freely in the halls, discipline problems were much more likely to erupt. With the silent transitions, teachers feel their students enter class more prepared to begin working and take much less time to settle down.

This culture does not emerge magically from some accumulated sets of activities, but demands enormous effort to build and maintain.

"My son doesn't act up here and I know it's because he doesn't want to disappoint his teachers. The teachers are so involved with the kids. He really respects them and wants their approval."

— Parent of Student at Community Day Charter School

With the perceived rise in school violence nationwide, cultivating a sense of safety among students seems essential to creating an effective learning environment and a positive school culture. Students in focus groups at several schools were quick to point out that there were no fights at their school. One seventh grader at Community Day Charter School explained, "My friends at other schools don't believe there are no fights here. At their schools, there is a fight every day." Several students at the Timilty School echoed this statement and explained that the sense of safety they felt at school was one of the school's most positive attributes. Student safety at these schools is often the result of a zero tolerance policy on fighting, disrespect, verbal abuse, and general rough play. At the Murphy School teachers work hard to send very consistent messages to students about expectations and standards of behavior. Because the Murphy School is a K-8 school, students learn the rules early and have already accepted them by the time they move into the older grades. Teachers and administrators explain that they have few behavior problems.

Students and parents also attribute the differences in student behavior at the school to the relationships that students develop with their teachers. One parent at Community Day Charter School explained, "My son doesn't act up here and I know it's because he doesn't want to disappoint his teachers. The teachers are so involved with the kids. He really respects them and wants their approval."

To be sure, "school culture" is an intangible concept that is hard to replicate from one school to the next. It is clear from interviews and school visits, however, that successful schools do not waver in their commitment to creating an atmosphere that promotes learning, cultivates respect for staff and students, and offers a supportive, safe, and nurturing environment.[27]

Effective family engagement

Successful schools also realize that their work will ultimately fall flat without the parents' or guardians' support of their efforts. The schools that are most successful at engaging parents consider family involvement a core part of their strategy and work hard to facilitate it. At KIPP Academy Lynn, prior to each student's entrance into the school, the principal makes a visit to each child's home. At this home visit, the principal explains specific school values, communicates clear expectations for parents and students, and helps the family to become comfortable with the school. Each parent actually signs a contract with the school, promising to ensure high student attendance, provide assistance with homework by checking homework that is completed each night, and help enforce the KIPP dress code and other rules of conduct. Teachers also focus on being highly accessible to parents. One parent at KIPP Academy Lynn explained, "The first time I called the school to set up a time to talk to my son's teacher, I was told I could come in that afternoon. I couldn't believe it. At his old school I had to make an appointment several weeks in advance. This doesn't work with kids—you need to address issues right when they are happening. I was so relieved that I found a place where I could actually talk to someone about my son."

Teachers at Roxbury Prep also communicate frequently with parents. Each teacher has a phone extension with voice mail and is required to return parent calls within 24 hours. Many teachers also distribute their cell phone numbers to students and parents, and encourage them to call if they have a question or concern. Teachers will also call home frequently to talk to their students' parents—not just when there is a problem, but also when the student is doing well. One parent explained his surprise at receiving a call from a teacher about the strong progress his son was making. "I was shocked. I couldn't believe she took the time to call me for that. I thought she was calling because he was in trouble."

Many of the extended-time schools profiled in this report are successful not just because they offer more time, but because they offer more of the right type of time and have built the school upon principles and behaviors that promote success. They have strong leaders and excellent teachers. They set high expectations for students and teachers and carefully monitor performance. They create an effective learning environment that is safe, supportive, and nurturing. They support students' overall development by teaching important values and social skills. They are clear that more time is important, but they also admit that it is not the only factor that determines success.

8 | Conclusion

The eight extended-time schools that Massachusetts 2020 examined for this project demonstrate that extending the time students spend in school is possible in a variety of settings, including district public schools, pilot schools, and charter schools, and through a range of funding and staffing innovations. Examination of these schools further reveals that there is no one correct model of an extended-time school. In fact, each school has a unique character that grows from its strong educational vision. But these schools do all share one core belief: that more learning time is the *sine qua non* upon which a successful school is built. Employing creativity and attention to detail, these educators then develop a school that deliberately departs from the standard calendar of 180 six-and-a-half-hour days. They expand upon this time for the express purpose of enhancing teaching and learning.

The positive effects of having more time are evident throughout each school. Through longer class periods, individual assistance, and tutoring sessions, students spend more time on task than do students in schools operating on a conventional schedule. These elements of the academic schedule also enable teachers to cover material in greater depth and to offer students greater opportunities for project work and experiential learning. The longer class times and individualized sessions enable teachers to consistently tailor their teaching to students' individual learning needs. Outside the core academic classes, all students are able to benefit from a wide array of enrichment activities that are intended to build new skills and interests and deepen their enthusiasm for learning. The longer day also provides teachers with more common planning time and additional opportunities for professional development, both of which help to generate noticeable camaraderie and professionalism among teachers.

Studying these schools also reveals that despite the benefits of having more time than the conventional schedule allows, there are hefty challenges to extending the school day. Clearly, one of the most significant is funding to pay for additional staff time. This compensation can be a sizeable cost. The schools profiled admit that raising additional funds or juggling existing resources to cover this cost can take considerable imagination and energy. Moreover, having each school raise the funds individually to pay for longer hours is not a sustainable or scalable strategy. Any effort to extend learning time beyond a few innovative but isolated models will require substantial public investment and a deliberate and predictable funding structure.

At the same time, the required public investment may not be as large as many anticipate. Because only a portion of the total school costs rise when the school day is extended (primarily a result of added teacher pay), overall costs do not rise in direct proportion to time added. Put another way, per-pupil costs *per hour* begin to drop off appreciably with the addition of each hour to the school schedule. These schools also exhibit a range of strategies for extending the school day, many of which come closer to being cost neutral. Staggering teachers' schedules, for instance, can mean that schools are able to provide full coverage of students' schedules without necessarily requiring all teachers to work more total hours. Forging partnerships with community-

A Strong Step Forward: Expanded Learning Time Planning Grants

In 2005 Massachusetts took a strong step toward helping schools and districts expand learning time for students. The state legislature approved funding for planning grants to support districts and schools as they identify ways to restructure their school days and/or years around a schedule with 30% more time. To assist districts with the complex planning required to redesign the school schedule to better meet student, school, and district goals, grants of at least $25,000 per district were made available through a competitive RFP process.

The sixteen districts awarded grants in 2005 will use the money to work with principals and school teams, collective bargaining units, and external partners of their choosing to develop an implementation plan for extending time and restructuring the school day. The grant program will allow each district to determine the staffing, schedule, budget, and program options that best fit its local context and goals. All districts that participate in the planning grant program will be eligible for state funding for implementation of these plans.

While long-term funding for implementation of extended-time schools is still uncertain, these planning grants are a pioneering step toward extending learning time for Massachusetts students.

If universal proficiency at high standards is to remain the goal of this state (and the nation), then we have no choice but to allot enough time to enable all students to reach that goal.

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based organizations and/or higher education institutions can not only provide a wider range of programming for students, but can also mean that some of the cost burdens of the additional programming are shared by these institutions. From this relatively small sampling of schools, it is not at all clear which method of cost containment or cost coverage is the most effective for extending school hours.

Usually when we talk of the millions and billions of dollars spent in this state and nation to support public education, we are thinking in only one dimension: costs. But it is important to remember that those costs, like education itself, are distributed over time. Every existing educational hour already has an associated cost. So, instead it is much more accurate to consider educational spending across two dimensions: costs *per hour*. In other words, we must account for the quantity of what is purchased (i.e., the total amount of schooling) and the quality it does or does not deliver. Extended-time schools may cost more in absolute terms, but the education delivered costs less per hour.

Money is not the only facet of our education system that is distributed over time. The very *raison d'etre* of our schools—student learning—is also rooted in time. In fact, in 1963 educational psychologist John Carroll expressed the relationship of time and learning in a simple equation:

$$\text{Degree of Learning} = \frac{\text{Time Spent}}{\text{Time Needed}}$$

The closer individuals come to achieving equilibrium between the numerator ("time spent") and the denominator ("time needed"), the higher the degree of learning. In the ideal situation, the equation equals "1"; a learner spends exactly the amount of time he or she needs to learn any one particular fact or concept. Carroll believed that no learner always spends as much time as he or she needs to maximize the degree of learning on every point. But it is the duty of teachers, schools, and districts to fashion classrooms in which learners can approach that perfect equilibrium as often as possible.[29]

As educators and policymakers struggle to surmount the dogged achievement gap and the worrisome flattening of proficiency rates overall, they may be ignoring one of the most fundamental truths of all: human cognitive capacity (i.e., learning) is limited by time. The more content and skills there are to master, the more time is needed to master them.[30]

On a systems level, as students are held formally accountable for demonstrating proficiency on an increasing amount of material, the time allotted to master that material should also rise. This adjustment has not been made. State educational policy in Massachusetts and other states simply fails to recognize the value of time: of ensuring that teachers have enough time to teach, and students have enough time to learn. It is indeed wise to expand what's taught so that students can better meet the demands of our increasingly complex and information-based society, and to focus on building necessary skills such as oral and written communication, researching, problem solving, and teamwork. But such wisdom is completely undermined unless the amount of time allowed for learning is expanded simultaneously. Demanding that students learn more in the same amount of time is especially counterproductive for students who are behind grade level, have limited English proficiency, or have special needs. If universal proficiency at high standards is to remain the goal of this state (and the nation), then we have an obligation to allot enough time to enable all students to reach that goal.

Notes

[1] The policy group, Achieve, Inc., a Washington, D.C.-based bipartisan education analysis group made up of governors and business leaders, in 2001 rated Massachusetts' standards and its MCAS test as the best among the 10 states it has reviewed since 1996, both in terms of alignment to each other and in content and design. According to Robert Schwartz, Achieve's then-president, "Massachusetts is the first state we can confidently say has high-quality, rigorous, and fair but challenging academic standards, and a fair but rigorous assessment that is aligned with the standards…. The state is in a category by itself." (Rick Collins, "Education Reform In Massachusetts Is Tops Among Ten States Analyzed," *State House News Service*, Oct. 17, 2001.) For an online copy of the report, http://www.achieve.org/achieve.nsf/StatePro-Massachusetts?OpenForm. One education think tank has even gone so far as to identify Massachusetts as the "smartest state" for two consecutive years, based on student performance. (Education State Rankings, 2004-2005 (2004), Lawrence, KS: Morgan Quitno Press). For more information, see http://www.morganquinto.com/edpress.htm.

[2] Kevin Carey, "The Funding Gap 2004," Education Trust (Fall 2004). The full report can be downloaded at http://www2.edtrust.org/NR/rdonlyres/30B3C1B3-3DA6-4809AFB92DAACF11CF88/0/funding2004.pdf.

[3] Districts are categorized and ranked based on the Gaudet Index, a rating of community socioeconomic status based on five key indicators from the 2000 census. These indicators include percentage of college graduates and median income. A full explanation of the analysis is available online at www.mass2020.org/portraitofbostonyouth(final).ppt, p. 3.

[4] For an excellent summary of the research on how in-school performance is linked to children's background and use of time outside of school, see R. Rothstein, *Class and Schools: Using Social, Economic, and Educational Reform to Close the Black-White Achievement Gap* (Washington, DC: Economic Policy Institute, 2004). In Rothstein's words, "Although conventional opinion is that 'failing' schools contribute mightily to the achievement gap, evidence indicates that schools already do a great deal to combat it. Most of the social class difference in average academic potential exists by the time children are three years old. This difference is exacerbated during the years that children spend in school, but during these years the growth in the gap occurs mostly in the after-school hours and during the summertime, when children are not actually in classrooms."

[5] National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Educational Reform: Report to The Nation and The U.S. Secretary of Education*, 1983. The report is available online at http://www.goalline.org/Goal%20Line/NatAtRisk.html#anchor809864.

[6] The Massachusetts Commission on Time and Learning, *Unlocking the Power of Time*, 1995, pp. 4-5.

[7] The most concise review of the literature appears in J. Zimmerman, *Improving Student Achievement by Extending School: Is it Just a Matter of Time?* (San Francisco, CA: WestEd, 1998).

[8] J.D. Bransford, et al., eds., *How People Learn: Brain, Mind, Experience and School* (Washington, DC: National Academy Press, 2000), pp. 58-62.

[9] On teacher impact on students, see H. Wenglinsky, "How Schools Matter: The Link Between Teacher Classroom Practices and Student Academic Performance," *Education Policy Analysis Archives,10:12, February* 2002.

[10] One example of this research is in arts education. See S.B. Heath, "Living the Arts through Language + Learning: A Report on Community-based Youth Organizations," *Americans for the Arts Monographs*, 2:7, November 1998.

[11] Many articles and books explore this relationship. For one example, see C. Muller, S. Katz, L. Dance, "Investing in Teaching and Learning: Dynamics of the Teacher-Student Relationship from Each Actor's Perspective," *Urban Education* 34:3, 1999, pp. 292-337.

[12] Massachusetts Commission on Time and Learning, p. 21.

[13] A pilot school in Boston operates essentially as an in-district charter school. The school can operate free of many of the central administrative rules of the district, though they are required to pay teachers according to the common collective bargaining agreement for Boston Public Schools. Any student from the district is eligible to attend a pilot school, dependent upon space availability.

[14] University Park Campus School was created as an extended-time school in 1997 but was forced to revert to a traditional schedule in 2003 when funding for extended-time programs was cut throughout the Worcester Public Schools.

[15] On average, Roxbury Prep students progress 2.5 grade equivalency levels in their first year in math, reading, and English grammar and usage, as measured through the Stanford 9.

[16] Department of Education, University of California at Irvine, *Evaluation of California's After School Learning and Safe Neighborhoods Partnerships Programs: 1999-2001, Preliminary Report* (Sacramento, CA: California Department of Education, 2002); B. Miller, *Critical Hours: Afterschool Programs and Educational Success* (Quincy, MA: Nellie Mae Education Foundation, 2003).

[17] R. Rothstein, *Class and Schools*, p. 57-58.

[18] University Park Campus School is not included in this analysis because it no longer offers a longer school day.

[19] Budget information is not shown for KIPP Academy Lynn because the school was not in operation during FY2004 and, therefore, a complete year of audited financial information is not available. KIPP Academy New York is not included because the process used for financing and managing charter schools in New York is very different from that used in Massachusetts.

[20] Per-pupil expenditures are calculated based on 2004 annual reports from the two schools and Massachusetts Department of Education 2004 Year End Pupil and Financial Reports for Boston and Lawrence. Total district expenses include spending from state and federal grants as well as municipal contributions. Tuition paid to non-district schools and payments for retired teacher benefits are excluded from total district expenses.

[21] Cost per student is shown with both the inclusion and exclusion of facilities costs because districts and charter schools have very different cost structures for facilities. These two charter schools spend less on facilities on a per student basis than the district public schools. Facilities costs excluded for the district schools include all capital expenditures and rent. Because the charter schools do not have capital expenditures, their spending on rent is excluded. General maintenance of facilities is included for both district and charter schools.

[22] Rennie Center for Education Research and Policy, *Head of the Class: Characteristics of Higher Performing Urban High Schools in Massachusetts*, 2003, and "The 100 Best High Schools in America," Newsweek, May 16, 2005.

[23] In Boston, students are admitted to schools through a lottery system. Parents request the schools they most want their children to attend. Source: Boston Public Schools Student Assignment Office.

[24] M. Fullan, *The New Meaning of Educational Change* (New York: Teachers College Press, 1991). C. Glickman, *Leadership for Learning: How to Help Teachers Succeed* (Alexandria, VA: Association for Supervision and Curriculum Development, 2003). M. Wheatley, *Leadership and the New Science: Learning About Organization from an Orderly Universe* (San Francisco: Berett-Koehler, 1994).

[25] L. Darling-Hammond and G. Sykes, eds., *Teaching as the Learning Profession* (San Francisco, CA: Jossey-Bass, 2003). J.W. Warren Little, et al, "Looking at Student Work for Teacher Learning, Teacher Community, and School Reform," *Phi Delta Kappan*, 85:3, November 2003, pp.184-92. A. Lieberman and L. Miller, *Teachers Caught in the Action: Professional Development That Matters* (New York: Teachers College Press, 2001).

[26] S. Rallis and M. MacMullen "Inquiry-Minded Schools: Opening Doors for Accountability," *Phi Delta Kappan*, 81:10, June 2000, pp. 766-73.

[27] R. Barth, *School Culture: Learning by Heart* (San Francisco, CA: Jossey-Bass, 2001).

[28] J. Epstein, et al., *School, Family, and Community Partnerships: Your Handbook for Action* (Thousand Oaks, CA: Corwin Press, 2002).

[29] J. B. Carroll, "A Model of School Learning," *Teachers College Record*, 64:8, 1963, 723-33.

[30] On this concept of trying to quantify the amount of time needed to learn a particular task, see M. Gettinger, "Time Allocated and Time Spent Relative to Time Needed for Learning as Determinants of Achievement," *Journal of Educational Psychology*, 77:1, 1985, pp. 3-11.

Massachusetts 2020 would like to thank the administrators, teachers, parents and students at the profiled schools for welcoming us into their schools and sharing the information that appears in this report.

Massachusetts 2020 also extends special thanks to the following individuals who reviewed this report and key data it contains:

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In addition, Massachusetts 2020 gratefully acknowledges our Advisory Board members for their advice and assistance on this project:

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President and CEO, Nellie Mae Education Foundation

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