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**Year Three  
Outcomes  
Report: 2008-2009**

**Outcomes Evaluation of  
the Expanded Learning  
Time Initiative**

*Final Report*

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Elementary and Secondary  
Education

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# Executive Summary

The Massachusetts Expanded Learning Time (ELT) initiative was established in 2005 with planning grants that allowed a limited number of schools to explore a redesign of their respective schedules and add time to their day or year. With state resources, participating schools have expanded learning time by at least 300 hours per year to improve student outcomes in core academic subjects, broaden enrichment opportunities, and improve instruction by adding more planning and professional development time for teachers. The first cohort of ten ELT schools (Cohort 1) received implementation grants to begin operating their expanded programs in the 2006–07 school year, and in 2007-08, a second cohort of nine schools (Cohort 2) implemented ELT. For the 2008-09 school year, a third cohort of eight schools began implementation, increasing the total number of ELT schools in the Commonwealth to 26.<sup>1</sup>

## THE EVALUATION OF EXPANDED LEARNING TIME

Abt Associates Inc. is conducting a multi-year evaluation of ELT with two interrelated parts: a planning and implementation component that explores the early decision-making phases and subsequent execution of ELT programs in the funded districts and schools, and an outcomes component that examines the outcomes of ELT for schools, teachers, and students. Ultimately the implementation and outcomes components will be linked to determine if the approaches to implementation are related to the outcomes achieved. This report focuses exclusively on examining the outcomes of ELT for schools, teachers, and students to date; a prior report focuses on the planning and implementation component.

## MAJOR FINDINGS

This report presents analyses of the effect of ELT on outcomes for schools, students, and teachers, separately by implementation year where possible (year one and year two).<sup>2</sup> We note the following key findings:

### Schools

- Measured characteristics of student and teacher populations were generally stable across ELT and matched comparison schools and implementation year, except ELT schools served a greater proportion of minority students than non-ELT schools.
- Although the number of new students enrolling in non-entry grades in ELT and matched comparison schools in the first implementation year did not differ significantly, those students new to ELT schools were significantly less likely to be special education students, students with limited English proficiency, or English language learners, compared with students new to the matched comparison schools.

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<sup>1</sup> One Cohort 1 ELT school closed prior to the 2007-08 school year due to restructuring in the district.

<sup>2</sup> Note that the prior year's report examined outcomes primarily by cohort; see Chapter 2 below for a more detailed explanation of differences between this report and its predecessors.

## Students

- ELT had a significant, positive effect on 5<sup>th</sup> grade science MCAS scores in the second year of implementation. The difference corresponds to an effect size of .14 standard deviations, which can be considered educationally meaningful. ELT had no statistically significant effects on other MCAS outcomes in either the first or second year of implementation.
- ELT had a statistically significant, negative effect on school attendance rates in both the first and second implementation years, although the estimated difference of less than half a percentage point may not be practically meaningful.
- Overall, very few students received suspensions or were truant. However, ELT schools had slightly higher rates of out-of-school suspensions across both years. In the first year, ELT schools had a slightly lower, and in the second year, a slightly higher rate of in-school suspension. ELT had no effect on truancy rates.
- Eighth grade students in ELT schools were significantly more likely to report using a school computer for school work at least once a month in the first implementation year; there was no difference in the second year. ELT students were less likely to report spending at least three hours per week on homework in the second implementation year; there was no difference in the first year. ELT had no significant effect on 8<sup>th</sup> grade students' reports of using a home computer for school work at least once a month, using computers two or more hours per week, or plans to attend college.
- Fifth grade ELT students were significantly less likely to report participation in a non-academic club at school; other differences in participation in out-of-school activities were not significant. ELT had no effect on the percentage of students reporting they would spend at least three hours today in a variety of common after-school activities.
- ELT had no effect on 5<sup>th</sup> grade students' perceptions about their relationships with their teachers, including spending more time with teachers this year. ELT also had no effect on 5<sup>th</sup> grades students' perceptions of the learning environment offered at their school or level of school engagement.

## Teachers

- After the first implementation year, teachers in ELT schools were significantly more likely to report that they were satisfied with their salary and that they would still become a teacher if they were to start over. Conversely, they were less likely to report that they were satisfied with being a teacher at their school. These differences do not, however, persist into the second year of implementation.
- Significantly more teachers in ELT schools reported thinking about transferring to another district compared to their peers in non-ELT schools after the second year; there was no difference in the first implementation year.
- There were no significant differences between ELT and non-ELT teachers on their perceptions of the teaching environment within their schools, district leadership, or parent involvement and student attitudes.
- The vast majority of both ELT and non-ELT teachers agreed with positive statements about principal leadership, although ELT teachers were significantly less likely to agree that their principal was an effective manager after the first implementation year.

## CONCLUSIONS AND FUTURE RESEARCH

The differences noted above are both inconsistent and interesting, yet there are few estimated differences in outcomes for schools, students, and teachers in ELT and non-ELT schools. The lack of consistent differences across outcomes could be due, in part, to the possibility that many of the matched comparison schools are also implementing “ELT-like” practices, based on evidence from qualitative data collection conducted as part of the implementation study. For example, administrators in both ELT and matched comparison schools reported allotting additional time for ELA and math instruction with the goal of improving student achievement.

In future reports, the evaluation will focus on relating outcomes to data on implementation, using an implementation index to rate schools in terms of level of implementing ELT. In addition, we plan to collect data from teachers in ELT schools to indicate whether they were allowed to “opt-out” of participation in their school’s ELT program, to explore whether outcomes from those teachers differ from those who “opted-in” or were not given the option.



# Chapter 1: Introduction

## HISTORY OF THE EXPANDED LEARNING TIME INITIATIVE

Expanding learning time as a means to improve student outcomes in Massachusetts was recommended as far back as 1995, when the Massachusetts Commission on Time and Learning (the Commission) released the influential report, *Unlocking the Power of Time*. It provided seven recommendations focused on extending learning time in schools and promoting the effective use of time during the school day and year. These same recommendations are incorporated into the goals and objectives of the Massachusetts Expanded Learning Time (ELT) initiative: prioritizing academic learning; accommodating differences in rates of student learning; and enhancing opportunities for teachers to plan lessons, participate in professional development activities, and collaborate with colleagues. The Commission's report also recommended lengthening the school year and providing optional enrichment activities throughout the calendar year. Further, the report advocated the strengthening of relationships between schools and communities, which could mutually benefit both parties in important and powerful ways with respect to learning and developing skills for today's labor market.

The driving force behind the Massachusetts ELT "movement" is Massachusetts 2020 (Mass 2020), a policy and technical assistance organization that, since its founding in 2000, has been working to expand learning opportunities for urban pupils and improve the lives of youth through education. After several years, Mass 2020 has turned its resources and attention toward the expansion of the school day, and moved away from its earlier focus on out-of-school time. The 2005 report *Time for a Change* reflects Mass 2020's current stance: ELT represents the best strategy for meeting its mission, and Mass 2020 continues to encourage the state Legislature, Governor, and other stakeholders to support investments in this school reform initiative. The organization also provides extensive technical assistance to participating schools who have received planning and implementation grants.

Expanded Learning Time grants are administered by the Massachusetts Department of Elementary and Secondary Education (ESE), which leads strategic planning and policy development for the initiative, awards and monitors ELT grants to schools, and provides limited technical assistance. The ELT grants are designed to "provide resources for districts to plan the innovative redesign of selected schools that will offer challenging, research-based, and varied learning experiences focused on raising student achievement."<sup>3</sup> While districts varied in how they selected proposed ELT schools, many selected schools with a history of poor performance relative to the rest of the state. ELT grant resources were then provided with two broad mandates: 1) to expand the amount of time; and 2) to make better use of time and instructional strategies. The paramount requirement is to expand the school day and/or school year, and while the operational definition has changed slightly over the past three years, the basic requirement has not. Specifically, during the initiative's first year (2006-07), this requirement meant an increase of 30 percent over the district's average; the following year (2007-08) the requirement was adjusted to 25 percent more time (corresponding to 300 hours). The requirement for the 2008-09 school year was simply to expand the schedule by at least 300 hours over the district-wide average. The following three objectives have remained the same:

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<sup>3</sup> Massachusetts Department of Elementary and Secondary Education.

- provide more instructional opportunities in math, literacy, science and other core subjects to support student achievement;
- integrate enrichment opportunities into student learning; and
- provide educators with increased opportunities to plan and to participate in professional development.<sup>4</sup>

The first cohort of 10 ELT schools in five districts implemented expanded programs in fall 2006, and a second cohort of nine schools (representing three new districts) began implementation of ELT in fall 2007. In the 2008-09 school year, a third cohort of eight ELT schools (representing four new districts) began implementation, bringing the total of ELT schools to 26 in 12 districts.<sup>5</sup>

During the 2008-09 school year, as in the two previous years, the ELT implementation grants provided \$1,300 per pupil to implement or continue schools' redesigned schedules. ESE and Mass 2020 continued to work closely together in a partnership to support the development and implementation of ELT schools and the statewide initiative.

ESE has supported a multi-year study of the Expanded Learning Time (ELT) initiative to learn about the process and impact of ELT. Abt Associates Inc. is conducting this research. The study has two components: 1) a planning and implementation component that explores the early decision-making phases and subsequent execution of ELT programs in funded districts and schools (presented in an earlier report); and 2) an outcomes component that examines the outcomes of ELT for schools, teachers, and students. To assess the planning for and implementation of ELT, study staff collected data from school personnel and other stakeholders through interviews, focus groups, and surveys. To determine the effect of the ELT initiative, outcomes from ELT schools (e.g., chiefly student performance data from the state's standardized assessment, the Massachusetts Comprehensive Assessment System, or MCAS) have been compared with those from matched comparison schools.

## THE ORGANIZATION OF THIS REPORT

Study findings from the 2008-09 school year are presented in two reports, one focused on implementation and one on outcomes. This report presents findings for school, student and teacher outcomes, and includes data collected during the third year of the evaluation of the Massachusetts ELT initiative, corresponding to the 2008-09 school year. The current chapter introduces and provides a brief history of the ELT initiative in Massachusetts. Chapter 2 describes the outcomes study design and data collection methods. Chapter 3 presents the findings, including comparisons of the various analytic samples, and estimates of the effects of ELT on student and teacher outcomes. Chapter 4 presents conclusions and recommendations for future research. Appendices include additional technical information about the study design and estimation techniques, findings from exploratory analyses, and copies of survey instruments.

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<sup>4</sup> FY2006 Planning and Early Implementation Grant RFP, Massachusetts Department of Elementary and Secondary Education.

<sup>5</sup> One Cohort 1 ELT school closed prior to the 2007-08 school year due to restructuring in the district.

# Chapter 2: Overview of the Study Design

## KEY RESEARCH QUESTIONS

The overall ELT evaluation is guided by three overarching research questions:

- 1) How has expanded learning time been implemented in schools that have received ELT grants?
- 2) What are the outcomes of expanded learning time for schools, students, and teachers?
- 3) What is the relationship between implementation and outcomes?

This report focuses on the second of these questions, about the effects of the ELT initiative on schools, students, and teachers in the three cohorts of ELT schools during up to two years of implementation. The third research question will be addressed in a future report.

The broad research question stated above can be disaggregated into seven more specific research questions about the effects of ELT on different groups and outcomes. Below, we list the research questions addressed in this report.

After one and two years of implementation of ELT, are there observed effects on:

1. the characteristics of students and teachers in ELT schools relative to non-ELT schools?
2. student MCAS scores?
3. student attendance rates, in-school-suspension rates, out-of-school suspension rates, and truancy rates?
4. 8th grade students' reports of:<sup>6</sup>
  - computer use for school work;
  - time spent on homework; and
  - planning to attend college?
5. 5th grade students' reports of:<sup>7</sup>
  - levels of participation in extracurricular, out-of-school, and recreational activities;
  - relationships with their teachers;
  - general perceptions of school, school engagement, or disengagement; and
  - levels of frequently being tired or hungry at school than their non-ELT school peers?
6. teachers' attitudes towards teaching?
7. teachers' perceptions of their students, and of school and district leadership?

The overall design of this two-part evaluation was derived from a conceptual understanding of the program operations and desired outcomes (Exhibit 1). The first step in successfully redesigning schools to provide expanded learning time requires extensive planning and the ability to overcome numerous

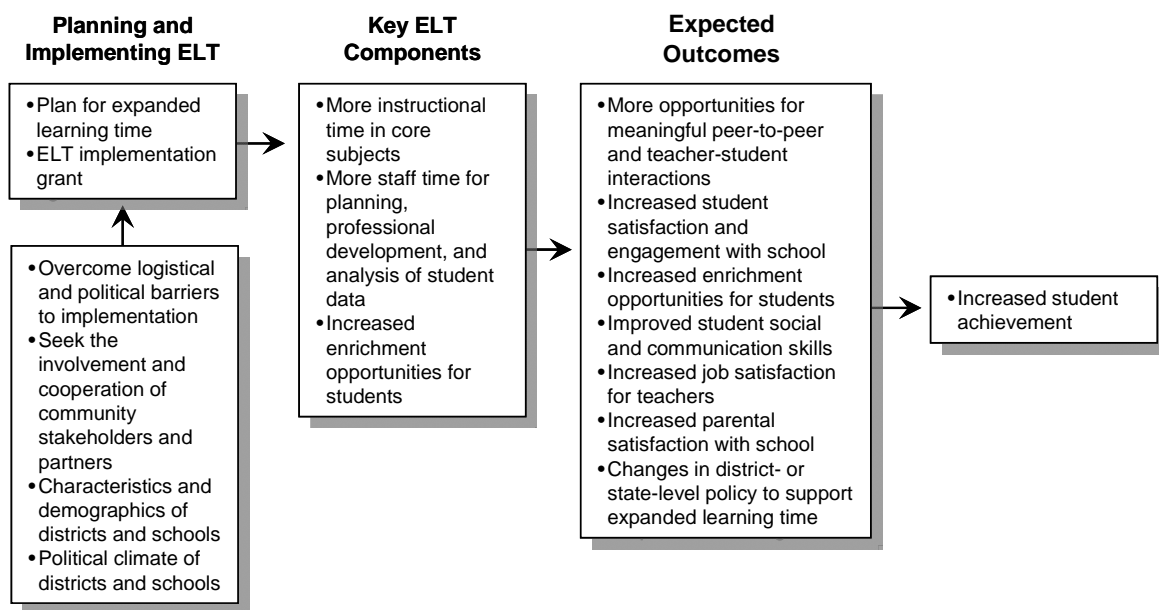
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<sup>6</sup> Research question 4 is limited to 8<sup>th</sup> grade students because it is addressed using data from the MCAS questionnaire administered only to 8<sup>th</sup> grade students.

<sup>7</sup> Research question 5 is limited to 5<sup>th</sup> grade students because it is addressed using data from the Abt-developed student survey; 5<sup>th</sup> grade is the only grade in which the overall student response rate met the 70 percent criterion for inclusion in the analysis.

logistical and political obstacles, such as balancing adequate time for additional instruction, additional enrichment opportunities, and teacher planning and coordination. Districts and schools are expected to need the cooperation of community stakeholders who may help facilitate (via resources or political connections), or who may impede the planning process. As shown under “Key ELT Components,” schools that are successful in implementing ELT will meet three major program goals: (1) provide students with more instructional opportunities in core subjects; (2) increase enrichment opportunities that engage students in learning; and (3) provide educators with increased opportunities to plan, collaborate, and participate in professional development opportunities. These factors should lead to more meaningful peer-to-peer and teacher-student interactions, as all members of the community will have more time to get to know and to learn about one another.

**Exhibit 1: Conceptual Model of Expanded Learning Time Initiative in Massachusetts**



Finally, under “Expected Outcomes,” if implemented successfully, expanded learning time should lead to a number of desired outcomes. Research suggests that providing students with more instructional time in core subjects, and providing educators with increased opportunities to plan, analyze student data, and participate in professional development, will lead directly to increases in achievement for students (Carroll, 1989; Gettinger, 1984; Purvis & Levine, 1975; Schmidt et al., 1998; Stevenson & Stigler, 1992; Walberg, 1986). In addition, by providing enough time to develop meaningful relationships between students and teachers, other problems that can hinder achievement may be identified early and successful interventions put in place.

Exhibit 1 shows that expanded learning time may also lead to other outcomes for students and teachers. Theory suggests that as a result of ELT, students may become more engaged in school because there are additional enrichment opportunities, they may develop better communication and problem-solving skills because they have more time to interact with teachers and peers, and they may be less likely to engage in disruptive behavior because they have less idle time. Teachers may find their teaching experience more rewarding and satisfying because they have adequate time to plan, prepare, and instruct, as well as earn higher pay and have additional opportunities to develop meaningful relationships with students. Parents may be more satisfied with their children’s schooling experience because they do not have to be

concerned about the safety of their children in the late afternoons, and because students are more engaged in school and show increased levels of achievement. These factors may potentially persuade other schools in the district to adopt an expanded learning schedule and/or encourage state or district officials to make policy changes to help facilitate the implementation of expanded school days. The implementation and outcomes components of this study will report on whether any or all of these outcomes are observed in the Massachusetts schools that have received expanded learning time grants.

## STUDY DESIGN

Addressing the key research questions posed above requires estimating the difference between outcomes for teachers and students in ELT and non-ELT schools. All of the analyses described below are non-experimental, since the random assignment of schools or students to ELT was not feasible. Although we would like to be able to attribute any observed differences between the groups on study outcomes to participation in ELT, the results from non-experimental studies generally cannot be interpreted as causal. That is, there are often reasonable alternative hypotheses that can be offered to explain observed differences other than participation in ELT. The most common alternative factors are: 1) persistent characteristics of schools that affect outcomes; and 2) changes in general education policy that might cause changes in outcomes across all schools. For example, it is likely that there are preexisting differences between the ELT and non-ELT schools that could reasonably account for any observed differences on study outcomes. Similarly, we could posit that changes in federal, state, and district education leadership could positively affect outcomes across all schools. This study, however, is designed to use a group of comparison schools, matched on key observable characteristics, as well as pre-program data, when available, to control for many potential alternative hypotheses. These analyses represent some of the strongest non-experimental methods available to get closer to a true estimate of the effect of ELT on teacher and student outcomes (Hotz, Imbens, and Klerman (2006); Dehejia and Wahba (1999); and Shadish, Cook, and Campbell (2002)).

There might still, however, be time-varying, school-specific, unmeasured variables that could be related to study outcomes that would not be addressed by controlling for pre-ELT and non-ELT outcomes. These omitted variables could still introduce bias into the estimated effects.

## A PROCESS FOR CHOOSING MATCHED COMPARISON SCHOOLS

### Overview

If we observe positive changes in outcomes for teachers and students in ELT schools, we would like to conclude that they were caused by their participation in ELT. However, it could be the case that general changes in education policy in Massachusetts may be causing improved outcomes across all schools, not just those implementing ELT. By including a set of carefully chosen schools that are not implementing ELT, we are controlling for such external policy changes, since we would expect them to change achievement equally in both ELT and non-ELT schools. Once we remove these effects, we can look at the changes in ELT schools over and above that in other non-ELT schools.

It is important to note that our assumption that external changes will affect ELT and non-ELT schools equally is based on the assumption that our ELT and non-ELT schools were similar prior to the onset of ELT. Therefore, we chose schools that matched the ELT schools on as many measurable characteristics as possible, listed below. In addition, we identified two potential matches for each ELT school based on

the measured characteristics. The study team then contacted the district superintendents to obtain qualitative information to help determine which of the two potential non-ELT comparison schools provided a better match; information about the tenure of the school’s leadership, district context, and demographics of the school’s neighborhood allowed the study team to select matched comparison schools based on critical quantitative and qualitative factors.

The goal of the matching process was to select a group of schools that are extremely similar to ELT schools on observable characteristics, but that are not implementing ELT. As we explain in more detail below (and in Appendix A), several of the models used to estimate differences actually go beyond controlling for only the observable characteristics on which the matches were made. By including indicators for each school in the models (called “school fixed effects”), we effectively control for all observable *and unobservable*, time-invariant characteristics of each individual school. That is, if an ELT school is different from its matched counterpart on a number of unobservable characteristics, the use of school fixed effects will control for those that are stable over time.

### **Assessing the Similarity of the Two Groups of Schools**

ELT schools were matched to non-ELT schools within district<sup>8</sup> and grade span (e.g., K–8, 6–8) based on the following prioritization of matching variables identified in collaboration with ESE staff (see Appendix A for a more complete description of these variables):

#### **Tier 1: Highest priority matching variables**

- ELA Composite Performance Index (CPI),
- Math Composite Performance Index (CPI),
- Aggregate ELA Adequate Yearly Progress (AYP),
- Aggregate Math Adequate Yearly Progress (AYP)

#### **Tier 2: High priority matching variables**

- ELA Accountability Status,
- Math Accountability Status

#### **Tier 3: Medium priority matching variables**

- Student enrollment,
- Percent minority (i.e., percent non-White),
- Percent limited English proficiency (LEP),
- Percent low-income,
- Percent special education

#### **Tier 4: Lower priority matching variables**

- Percent male,
- Percent of teachers in core academic subjects who are highly qualified

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<sup>8</sup> We could not identify a within-district match for one ELT school due to the size of the district. This school’s match was drawn from a demographically similar district from the same region of Massachusetts that also has ELT schools in its district.

The goal of the matching process is to create two groups of schools that are very similar *prior* to the implementation of ELT. We assessed this by comparing the groups within cohort in the year just before implementation of ELT began on all characteristics that are measured on a continuous scale. The difference between the groups on each characteristic was converted into a standardized effect size, to assess whether the differences might affect the analysis. Recent research suggests that differences that are larger than .25 standard deviations should be considered meaningful, and therefore require adjustment in the statistical models (Ho, et al., 2007).

The results of these analyses are summarized in Exhibit 2. In Cohort 1, four comparisons reveal differences larger than .25 standard deviations (as indicated by ^). ELT schools serve more students of limited English proficiency and from low income families. The negative effect sizes indicate that matched comparison schools serve more special education students and more male students. In Cohort 2, there are three differences of note: matched comparison schools have higher CPI scores in both ELA and math, and ELT schools serve more students of low income families. The size of the differences is generally consistent with results reported in the Year 2 Report (see Exhibit D1 in that report).<sup>9</sup> Finally, Cohort 3 ELT and matched comparison schools differ on all but two of the nine measured characteristics.

These results indicate that while the matched comparison schools may represent the best available matches, they do differ in important ways from their ELT counterparts. However, as mentioned above, including school fixed effects in the model controls for these preprogram differences between ELT and matched comparison schools on observable measures, as well as any unobservable consistent characteristics of these individual schools. In this way, despite the results in Exhibit 2, the methods appropriately control for any outside factors that might affect outcomes across ELT and non-ELT schools, and will allow us to estimate the differences in study outcomes over and above what we would have expected given the effects of these alternative factors.

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<sup>9</sup> While few of the differences in the Year 2 Report attained conventional levels of statistical significance, recent work indicates that even non-significant differences can affect model estimates. Whenever possible, we control for these factors either explicitly, or through the inclusion of school fixed effects.

**Exhibit 2: Comparison of School-Level Characteristics of ELT Schools and Matched Comparison Schools, by Cohort**

Characteristic	Last Pre-ELT Year		Difference (in effect size units)
	Actual ELT Mean	Actual MC Mean	
<b>Cohort 1 (2005-06)</b>			
Student enrollment	495	492	0.01
ELA CPI	71.41	71.74	-0.06
Math CPI	54.63	55.20	-0.05
Percent minority	67.46	63.02	0.17
Percent limited English proficient	11.52	9.99	0.26 <sup>^</sup>
Percent low income	76.54	65.06	0.75 <sup>^</sup>
Percent special education	18.30	20.41	-0.41 <sup>^</sup>
Percent male	50.51	52.62	-0.70 <sup>^</sup>
Percent of teachers in core academic subjects who are highly qualified	87.33	85.82	0.10
<b>Cohort 2 (2006-07)</b>			
Student enrollment	460	508	-0.24
ELA CPI	73.03	77.53	-0.40 <sup>^</sup>
Math CPI	60.23	67.79	-0.63 <sup>^</sup>
Percent minority	56.19	51.07	0.22
Percent limited English proficient	13.43	14.20	-0.07
Percent low income	72.60	61.48	0.69 <sup>^</sup>
Percent special education	16.40	16.97	-0.17
Percent male	51.03	50.76	0.06
Percent of teachers in core academic subjects who are highly qualified	96.67	97.34	-0.20
<b>Cohort 3 (2007-08)</b>			
Student enrollment	508	615	-0.72 <sup>^</sup>
ELA CPI	76.13	78.30	-0.27 <sup>^</sup>
Math CPI	66.48	67.34	-0.09
Percent minority	53.81	44.44	0.45 <sup>^</sup>
Percent limited English proficient	11.35	15.15	-0.25 <sup>^</sup>
Percent low income	61.46	55.98	0.33 <sup>^</sup>
Percent special education	16.53	20.49	-0.76 <sup>^</sup>
Percent male	52.35	52.49	-0.05
Percent of teachers in core academic subjects who are highly qualified	97.95	94.63	0.68 <sup>^</sup>

**EXHIBIT READS:** In the year prior to the implementation of ELT, the average enrollment was 495 in ELT schools and 492 in matched comparison schools. The difference corresponds to an effect size of .01 standard deviations.

A <sup>^</sup> indicates an effect size of at least .25 standard deviations.

Source: School-level data from MA DOE website

Sample: Nine ELT and nine matched comparison schools in Cohorts 1 and 2; eight ELT and eight matched comparison schools in Cohort 3.

Note: Means shown are averages across schools within each respective group.



## EXTENDING THE DESIGN TO INCLUDE AVAILABLE PRE-ELT DATA

While the use of a carefully selected matched comparison group controls for external factors that might occur at the same time as ELT and also affect the outcomes of interest, it is possible that we are not adequately controlling for persistent (time-invariant) characteristics of these schools. If we assume that the effect of these characteristics on study outcomes will be the same in a given school both pre- and post-ELT, including, where available, data prior to the implementation of ELT will control for the effects of the alternative factors. For example, the overall socio-economic status of the students in the school often remains somewhat stable, and would presumably affect pre- as well as post-ELT student achievement. Including these data in our models allows us to estimate the effect of ELT over and above what we might expect given the effects of these stable school characteristics.

The model will use, for example, 3<sup>rd</sup> grade MCAS scores in both ELT and non-ELT schools prior to and after the implementation of ELT. The implementation of ELT is modeled as an “interruption” in what would otherwise be assumed to be somewhat stable levels of student achievement. The inclusion of the non-ELT schools in the model guards against misinterpreting secular changes in test scores in the state (which should also be evident in non-ELT school achievement) as effects of ELT (which should only be seen in ELT schools).

In previous reports, the effect of ELT has been estimated by modeling trends in outcomes during the years prior to ELT, and then projecting this trend into the post-ELT years to estimate the expected outcomes in the absence of ELT. This approach, sometimes called “short interrupted time series analysis,” provides a strong quasi-experimental design, and it requires at least two assumptions: 1) that we have correctly modeled achievement trends in the pre-ELT years and 2) that this trend is stable enough to persist unchanged in the post-ELT years. Although these assumptions are quite reasonable in many circumstances, it is possible to model year-to-year variation in outcomes without making these assumptions. In this report, changes in outcomes over time are modeled by including calendar year indicator variables, or year fixed effects, in the model. These indicators control for variation in outcomes that is associated with a particular calendar year, but that is consistent across all schools in the sample (both ELT and non-ELT matched comparison schools). The inclusion of year fixed effects does not require that we establish a particular trend line (or curve); rather, any systematic trends will be captured by including these variables in our model.

## MEASURES, DATA COLLECTION, AND RESPONSE RATES

In this section, we first review the data sources and outcome measures used to address the research questions. We then briefly describe the data collection procedures and the response rates achieved for student and teacher surveys. Exhibit 3 summarizes the data sources used to address the research questions posed in this report.

### Exhibit 3: Data Collected for 2008-09 Outcomes Report

	Extant Data				Survey Data		
	School-level Characteristics 2002-09	MCAS Data 2002-09	MCAS Questionnaire 2006-09	Behavioral Data 2002-09	Teacher Survey 2007-08	Teacher Survey 2008-09	Student Survey 2008-09
<i>After one and two years of implementation of ELT, are there observed effects on...</i>							
the populations of students and teachers in ELT schools relative to non-ELT schools?	✓						
student MCAS scores?		✓					
student attendance rates, in-school-suspension rates, out-of-school suspension rates, and truancy rates?				✓			
8 <sup>th</sup> grade students' reports of:							
• computer use for schoolwork			✓				
• time spent on homework			✓				
• planning to attend college			✓				
5 <sup>th</sup> grade students' reports of:							
• levels of participation in extracurricular, out-of-school, and recreational activities	✓						✓
• relationships with their teachers							✓
• general perceptions of school, school engagement, or disengagement							✓
• levels of frequently being tired or hungry at school than their non-ELT school peers?							✓
teachers' attitudes towards teaching?	✓				✓	✓	
teachers' perceptions of their students, and of school and district leadership?	✓				✓	✓	

**EXHIBIT READS:** Data on school-level characteristics from 2002-09 were used to learn more about the populations of students and teachers in ELT schools relative to non-ELT schools.

### Data for Selecting Matched Comparison Schools and Examining the Effects of ELT on Schools

Publicly available school-level datasets for both ELT schools and matched comparison schools were downloaded from the ESE website (<http://profiles.doe.mass.edu/>), for each school year available beginning as early as 2001–02 through 2008–09. The datasets include all of the variables used in the matching process described above (school-level academic achievement indicators, school-level student demographic characteristics and special population designations, school enrollment, and percent of core academic teachers identified as highly qualified). Data prior to the implementation of ELT were used to select preliminary matched comparison schools. Data both prior to and after the implementation of ELT were used to examine the effects of ELT on these school-level outcomes, and as covariates in models estimating the effects on student and teacher survey responses.

### Data for Examining the Effects of ELT on Students: Achievement; Student Attendance, Suspensions and Truancy; 8th Grade Students' Computer Use, Homework, and College Plans

ESE provided longitudinal, student-level MCAS data for both the ELT and the matched comparison schools. These datasets include student-level achievement (proficiency levels, raw scores, and scaled

scores) on the Reading/English Language Arts, Math, and Science MCAS exams from 2001-02 through 2008-09.

These datasets also include student-level demographic variables, and behavior variables including attendance rate, truancy rate, in-school suspension rate, and out-of-school suspension rate (percent of school days). Data are available for all students through the 2008-09 school year; attendance data are available beginning in 2001-02, and the other variables are available beginning in 2003-04.

During 8<sup>th</sup> grade, students are asked to complete a self-report questionnaire during their MCAS testing. ESE provided student-level 8<sup>th</sup> grade MCAS student questionnaire data for successive cohorts of 8<sup>th</sup> graders attending ELT and matched comparison schools from 2001-02 through 2008-09.<sup>10</sup> The questionnaire covers topics such as time spent on homework, computer usage, and college plans.

### **Data for Examining the Effects of ELT on Students: Self-Report Surveys**

During the spring 2009 data collection, Abt Associate study staff surveyed 5<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade students to examine their participation in extracurricular activities, relationships with their teachers, perceptions of and attitudes towards school, and the degree to which they feel tired or hungry at school.

Student participation in activities is measured with a series of yes/no questions; the analyses presented here are reported in terms of the percentage of students who indicated that they had participated in a particular activity. Similarly, questions about students' perceptions of their relationships with teachers are addressed with a series of true/false questions, and the results here are presented as the percentage of students who responded "true" to positive statements about their relationships with teachers.

Students were asked questions about their perceptions of and attitudes towards school, as well as the degree to which they feel tired or hungry at school. Students chose one of three responses: always or almost always, sometimes, and never or almost never. The results presented below summarize differences between the percentages of students who responded "always or almost always" to each statement.

### **Data for Examining the Effects of ELT on Teachers: Self-Report Surveys**

Teachers in ELT and matched comparison schools were asked to complete Abt-developed self-report surveys in spring 2008 (Cohorts 1 and 2) and spring 2009 (Cohorts 1, 2 and 3). Cohorts 2 and 3 were in their first year of implementation in spring 2008 and 2009, respectively. These data are included in all analyses of teacher outcomes after one year of implementation.<sup>11</sup> Cohorts 1 and 2 were in their second year of implementation in spring 2008 and 2009, respectively. The analyses of teacher outcomes after two years of implementation rely on data collected from these teachers. Data collected from teachers in Cohort 1 in spring 2009, which represents their third year of implementation, will be analyzed in a future report.

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<sup>10</sup> Data used in analyses began in 2005-06 because of changes in the questionnaire over time.

<sup>11</sup> The spring 2007 survey data collection, when Cohort 1 schools were in the first year of implementation, did not include matched comparison teachers. Therefore, Cohort 1 is not included in analyses of teacher outcomes after one year.

The teacher surveys included questions about teachers' attitudes towards teaching in general and at their school, their perceptions of the teaching environment at their school, their perceptions of school and district leadership, and their perceptions of parental involvement and student attitudes. Teachers responded to survey items on a 4-point scale from strongly disagree to strongly agree. Results presented here compare the percentage of teachers in ELT and matched comparison schools that responded "agree" or "strongly agree" to the statements.

## **Survey Data Collection Overview**

In this section, we provide a brief description of the procedures used to collect the teacher and student surveys in the 2008-09 school year. Data collection activities were similar to those in the prior two years of the study. Study liaisons in ELT schools were asked to send the parental permission slips home in January, in order to obtain permission for focus groups as well as for surveys. In matched comparison schools, parental permission slips were sent home in early April, as far in advance of their anticipated student survey administration date as possible. In the majority of schools, the 2008-09 teacher and student surveys were administered in April and May.

### ***Study Liaisons***

A designated study liaison, usually the ELT manager or principal, facilitated the data collection at each school. The study team provided the liaison with instructions that outlined the procedure for administering the surveys, and a timeline with key dates. The study team communicated with liaisons to tailor the timeline and procedures to their school schedule; this allowed the study team to follow up on liaisons' progress and offer any necessary assistance or guidance. Liaisons were paid \$150 for their assistance coordinating a variety of data collection activities throughout the 2008-09 study year. Matched comparison schools received an additional \$100 honorarium for their participation in the survey administrations.

### ***Eligibility, Consent, and Incentives***

All staff members who provided instruction to students were asked to complete the teacher survey. ELT schools were given explicit guidance that all teachers should complete the survey regardless of whether they participate in the longer school day or not. Teachers were not required to sign a consent form; an information sheet about the ELT study was included as the first page of the survey, and completion of the survey itself served as an indication that the teacher consented to do so.

Because the ELT schools' participation in the evaluation is a stipulation of the school's grant award, teachers in those schools were not provided an incentive for completing the survey. Teachers in matched comparison schools, on the other hand, were given a \$5 Dunkin Donuts gift card as an incentive for completing the survey; in most cases, these gift cards were handed out to teachers by the internal study liaisons after the teachers returned a completed survey.

All 5<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade students in study schools were eligible for the student survey. A cover letter describing the study and parental permission slips were provided to schools in both English and Spanish. The research team encouraged principals and homeroom teachers to send a letter to parents encouraging them to allow their child's participation in the research.

As an incentive for students to return signed parental permission forms, each school was offered a pizza party, or a reward of similar value, for the homeroom with the highest response rate. Students were not given an additional incentive upon completion of the survey.

### ***Survey Administration***

*Teacher Surveys.* The majority of ELT schools (21 of 26 schools) and matched comparison schools (19 of 24 schools) administered and collected the teacher surveys during a faculty meeting. The remaining schools distributed the surveys through internal mail and had a designated collection box outside of the liaison's office. All completed surveys were sealed in envelopes to ensure respondent confidentiality.

*Student surveys.* In all but one school, student surveys were administered during the school day. Liaisons usually relied on students' homeroom teachers to administer and collect the surveys; in a few cases liaisons gathered all students who had returned signed parental permission in the school cafeteria to complete the surveys. All signed parental permission forms and completed surveys were sealed in envelopes to ensure respondent confidentiality, and sent to the study team at Abt.

### ***Strategies for Encouraging High Response Rates***

The Abt study team was in regular contact with school liaisons during the data collection effort. Abt staff and school liaisons reviewed their survey administration plan to help increase the feasibility of the survey data collection. During the data collection effort, the Abt study team checked in to monitor their progress obtaining parental permission and survey responses, and to troubleshoot solutions to any barriers that arose. Indeed, collecting signed parental permission forms proved a formidable task, particularly in 8<sup>th</sup> grade. Many study liaisons sent parental permission slips home multiple times, some as many as five times. In addition, liaisons employed a variety of additional strategies such as:

- Having the school principal go into each homeroom to stress the importance of the study;
- Making phone calls to all parents from the principal through the ConnectEd system;
- Making phone calls to individual parents from either the principal or from students' homeroom teachers;
- Sending the parental permission slips home with report cards;
- Gathering additional parental permission during parent teacher conferences or other school events at which parents were in attendance (e.g., band concerts, fundraisers); and
- Offering school-specific incentives (e.g., candy, extra recess, vouchers for the school store).

Despite these efforts, attaining high response rates proved challenging; response rates, as well as the implications for analysis, are summarized below.

### **Response Rates for Students and Teachers: Implications for Analysis and Interpretation of Findings**

Below, we report the response rates achieved during the survey data collection efforts that provide data used in this report. Response rates for each respondent group (teachers, and 5<sup>th</sup> and 8<sup>th</sup> grade students) are calculated separately for each school, in order to examine whether the number of respondents is high enough to create confidence that the responses adequately represent the eligible teachers and students in that school. Schools in which the response rate for a particular respondent group is below 70 percent are excluded from analyses of outcomes for that group.

The spring 2009 school sample includes 26 ELT schools and 24 matched comparison schools. There are fewer matched comparison schools because one Cohort 1 match declined participation in the study, and one school in Cohort 2 does not have a match.

Teachers from all schools are eligible to be surveyed. Since the study sample includes both elementary and middle schools, as well as one high school, only a subset of schools are eligible for the 5<sup>th</sup> and 8<sup>th</sup> grade survey. Seventeen ELT schools and 14 matched comparison schools serve 5<sup>th</sup> grade students and 15 ELT and 13 matched comparison schools serve 8<sup>th</sup> grade students.

### ***Teacher Response Rates***

Survey responses from Cohort 2 (2008) and Cohort 3 (2009) are used to examine differences between ELT teachers after one year of implementation and matched comparison teachers. Teachers from 34 schools (17 in each group) are eligible for this analysis. Two schools in each group in Cohort 2 did not return any surveys. In the remaining 30 schools, average response rates ranged from 50 to 100 percent. Across Cohorts, 9 ELT schools and 13 matched comparison schools achieved response rates of at least 70 percent. This subsample represents 53 percent of the eligible ELT schools and 77 percent of the matched comparison schools. The subsample of schools included in the analysis differs substantially from those schools excluded from the analysis on a number of measurable characteristics (Exhibit 4).

Teachers from Cohort 1 (2008) and Cohort 2 (2009) comprise the sample used to describe differences between ELT teachers after two years of implementation and matched comparison teachers. Teachers from 35 schools (18 ELT schools and 17 matched comparison schools) are eligible for this analysis. Two matched comparison schools in Cohort 1 failed to return any surveys. In the remaining 33 schools, average response rates ranged from 31 to 100 percent. Across Cohorts, 10 ELT schools and 12 matched comparison schools achieved response rates of at least 70 percent. This subsample represents 56 percent of eligible ELT schools and 71 percent of eligible matched comparison schools. Again, the differences seen in Exhibit 4 indicate that the subsample of schools included in the analysis is different than those excluded from the analysis. Therefore, the results of these analyses should not be interpreted as indicative of the results we would have gotten had teachers from all schools had responded.<sup>12</sup>

### ***Fifth Grade Student Response Rates***

One ELT school in Cohort 2 did not return any 5<sup>th</sup> grade surveys. In the remaining ELT schools, the response rates ranged from 51 to 100 percent. In matched comparison schools, response rates ranged from 24 to 95 percent. Only six schools in each group attained response rates of at least 70 percent. This subsample represents 35 percent of the ELT schools and 43 percent of the matched comparison schools. These schools represent a somewhat small proportion of the schools in their respective groups, yet the high response rates within schools provide some confidence that the data accurately reflect those schools. Exhibit 5 reveals that there are several differences of note on observable characteristics. Again, this indicates that we should not interpret findings from these analyses as representative of the larger sample of students in ELT and matched comparison schools in this study.

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<sup>12</sup> It is possible to use weights to statistically adjust for non-response; we will explore the feasibility of applying these statistical adjustments to our analysis in future reports.

**Exhibit 4: Comparison of School-Level Characteristics of Schools Included and Excluded from the Analysis of Teacher Survey Responses**

Characteristic	Schools Included	Schools Excluded	Difference (in effect size units)
<b>After one year of implementation</b>			
Student enrollment	479	582	-0.57 <sup>^</sup>
ELA CPI	74.6	79.7	-0.49 <sup>^</sup>
Math CPI	64.5	69.9	-0.49 <sup>^</sup>
Percent minority	56.4	47.7	0.39 <sup>^</sup>
Percent limited English proficient	17.4	9.5	0.57 <sup>^</sup>
Percent low income	68.3	56.9	0.71 <sup>^</sup>
Percent special education	17.8	18.4	-0.12
Percent male	51.9	50.7	0.38 <sup>^</sup>
Percent of teachers in core academic subjects who are highly qualified	97.2	97.9	-0.17
<b>After two years of implementation</b>			
Student enrollment	465	495	-0.13
ELA CPI	76.5	74.7	0.18
Math CPI	68.2	61.9	0.50 <sup>^</sup>
Percent minority	58.0	67.6	-0.38 <sup>^</sup>
Percent limited English proficient	15.1	12.0	0.23
Percent low income	69.8	71.0	-0.09
Percent special education	19.5	19.1	0.08
Percent male	51.1	53.0	-0.47 <sup>^</sup>
Percent of teachers in core academic subjects who are highly qualified	96.4	98.6	-0.36 <sup>^</sup>

**EXHIBIT READS:** The average enrollment was 479 in schools included in the analysis of teacher surveys after one year of implementation, and 582 in schools excluded from the analysis. The difference corresponds to an effect size of -.57 standard deviations.

A <sup>^</sup> indicates an effect size of at least .25 standard deviations.

Source: School-level data from MA DOE website

Sample: Fifty two schools across three Cohorts.

Note: Means shown are means of the school-level means within each respective group.

**Exhibit 5: Comparison of School-Level Characteristics of Schools Included and Excluded from the Analysis of 5<sup>th</sup> Grade Student Survey Responses**

Characteristic	Schools Included	Schools Excluded	Difference (in effect size units)
Student enrollment	503	537	-0.17
ELA CPI	74.7	78.3	-0.39 <sup>^</sup>
Math CPI	68.9	66.1	0.24
Percent minority	55.9	59.1	-0.13
Percent limited English proficient	22.1	12.6	0.68 <sup>^</sup>
Percent low income	67.4	66.5	0.05
Percent special education	18.7	19.4	-0.13
Percent male	52.8	51.9	0.29 <sup>^</sup>
Percent of teachers in core academic subjects who are highly qualified	98.8	95.8	0.62 <sup>^</sup>

**EXHIBIT READS:** The average enrollment was 503 in schools included in the analysis of 5<sup>th</sup> grade student survey outcomes and 537 in schools excluded from the analysis. The difference corresponds to an effect size of -.17 standard deviations.

A <sup>^</sup> indicates an effect size of at least .25 standard deviations.

Source: School-level data from MA DOE website

Sample: Fifty two schools across three cohorts.

Note: Means shown are means of the school-level means within each respective group.

***Eighth Grade Student Response Rates***

Two ELT and two matched comparison schools failed to return any 8th grade surveys. In the remaining schools, the average response rates are quite low (55 percent in ELT schools and 34 percent in matched comparison schools). Only two matched comparison schools returned surveys from more than 50 percent of their students. Only three ELT schools and one matched comparison schools had response rates of at least 70 percent. This severely limits the internal validity of any analysis comparing 8<sup>th</sup> grade student responses in ELT and matched comparison schools. Therefore, we have not included findings based on these surveys in this report.

**APPROACH TO ESTIMATING THE EFFECTS OF ELT**

In this section, we describe the specific approaches to modeling the effects of ELT on various outcomes for schools, students, and teachers presented in this report. Throughout the section, we describe key differences between the approach used in the Year 2 Report and the present analyses. First, we discuss one overarching issue: the shift from analyzing data within cohorts across or by calendar years (as presented in the Year 2 Report and the Year 3 Implementation Report) to analyzing data across cohorts by implementation year. Next, we describe the data available for each analysis, and the specific features of each model (see Appendix A for formal model specifications). We conclude this section with a description of how to interpret the results of these analyses. In addition, to facilitate the interpretation of key findings later in the report, we review salient features of the approach at the beginning of each section of results.



## Analyzing Data by Implementation Year

The fact that implementation of the ELT program was staggered by funding multiple cohorts of schools for multiple years provides the opportunity to analyze outcome data in two different ways: separately for each cohort in each calendar year, or pooled within one of three dimensions (cohort, calendar year, or implementation year). While it is possible to examine outcomes for a single cohort within a single calendar year, such analyses would have little statistical power with which to find effects because of the small sample size.<sup>13</sup> Pooling increases the sample on which we base estimates, improving statistical power; however, we are then unable to examine differences along the dimension across which the data are pooled. In this way, pooling improves our ability to answer some research questions, while hindering our ability to answer others. Therefore, choosing the method by which to pool the data must be driven by which research questions are of the highest priority. Below, we describe the various options, and discuss the choice to analyze the data separately for each implementation year by pooling the data across cohort and calendar year.

*Focusing on Cohort.* We could analyze outcomes separately for each cohort, and pool the data across calendar/implementation year. This would yield a single, average effect of ELT for each cohort, using data from all available years. This method would prioritize the examination of variation in effects across cohorts over the examination of year to year differences in effects. Indeed, in the Year 2 Report, results for Cohort 1 were pooled across both years of implementation. However, while there may be systematic differences between the schools in the three cohorts, we do not have specific hypotheses about variation in effects of ELT across the cohorts.

*Focusing on calendar year.* Analyzing outcomes separately for each calendar year, and pooling across cohorts and implementation year, would provide a single, average effect of ELT in a given program year (i.e., 2008-09). While these estimates might be interesting to those thinking about effects initiative-wide (i.e., what was the effect of the ELT initiative 2 years after its inception), this method would obscure variation in effects due to the fact that schools are at various points in their implementation of ELT. This is the approach used in the Year 3 Implementation Report, which provides information with which ESE and those implementing the program can understand how the program is being implemented within the various cohorts of schools in a specific calendar year. Those findings have direct implications for the continued implementation and monitoring of the ELT program and the initiative more broadly.

*Focusing on implementation year.* Three cohorts of schools have now implemented the program for one year, giving us a reasonable sample on which to base estimates of effects of ELT after a single year of implementation. In addition, two cohorts of schools have completed two years of implementation, and therefore can contribute to the estimate of the effect of ELT after two years of implementation. Since only one cohort of schools (Cohort 1) has completed three years of implementation, we view it as premature to present these findings in the main body of this report. Consequently, in this report, we present results in terms of outcomes after two and one year of implementation, and test hypotheses about whether effects vary as a function of implementation years.

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<sup>13</sup> Despite this limitation, we include estimates of the effects of ELT separately for each cohort in each calendar year for descriptive purposes in Appendix B.

## **Modeling the Effects of ELT on Schools**

To address the first research question about the effect of ELT on school-level outcomes, we used school-level data for both ELT and matched comparison schools both prior to and after the implementation of ELT. As mentioned above, this analytic approach controls for persistent, school-specific factors that could explain any observed differences, thus reducing the number of plausible alternative explanations for observed effects.

The model includes school fixed effects, which control for the effects of all of the observed and unobserved persistent characteristics of these schools, including those that may differ between ELT and matched comparison schools. Year fixed effects control for any variation in outcomes that is unique to a specific calendar year, but is consistent across schools in our sample. Finally, we model the effect of ELT using two variables: the first indicates whether the outcome is from an ELT school when it is in its first year of implementation (and is coded 0 otherwise), and the second indicates whether the outcome is from an ELT school when it is in its second year of implementation (and is coded 0 otherwise). These provide separate estimates of the effects of ELT across cohorts during their first and second year of implementation.

## **Modeling the Effects of ELT on Student MCAS Scores, Behavioral Data, and Outcomes from the 8<sup>th</sup> Grade MCAS Questionnaire**

To address questions 2-4 (see page 6) about the effect of ELT on student-level outcomes, we used student-level data for both ELT and matched comparison schools both prior to and after the implementation of ELT. Using pre- and non-ELT data allows us to control for persistent, school-specific factors that could explain any observed differences, thus reducing the number of plausible alternative explanations for observed effects. We are also able to include student-level covariates, to both control for their effects on outcomes and to increase the precision of the estimates. The models appropriately account for the fact that students are clustered within schools.

All three sets of models include school fixed effects. Year fixed effects are also included in all models, to control for any variation in outcomes that is unique to a specific calendar year, but consistent across schools in our sample. We again model the effect of ELT using two variables: the first indicates whether the outcome is from an ELT school when it is in its first year of implementation (and is coded 0 otherwise), and the second indicates whether the outcome is from an ELT school when it is in its second year of implementation (and is coded 0 otherwise). These provide separate estimates of the effects of ELT across cohorts during their first and second year of implementation, over and above any changes in the outcomes that we might have expected given outcomes 1) prior to ELT and 2) in schools not implementing ELT.

We use two approaches to control for student-level characteristics, depending on the data available for the analysis. In the analysis of MCAS scores and 8<sup>th</sup> grade MCAS questionnaire responses, we include student-level demographic characteristics in the model.<sup>14</sup> The analysis of the behavioral indicators is conducted across grades, which means that data for the same student is often available for multiple school years. This allows for the inclusion of student fixed effects in the model; instead of controlling for only a

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<sup>14</sup> These included gender, minority status, low income status, limited English proficiency status, and special education status.

few specific demographic characteristics, student fixed effects, like school fixed effects, control for all of the observable and unobservable persistent characteristics of individual students in our data.

### **Modeling the Effects of ELT on Data Collected from Student and Teacher Surveys**

Because of differences in data availability, we used two slightly different approaches to modeling the effects of ELT on student and teacher survey outcomes. To address question 5 (see page 6) about the effect of ELT on student survey outcomes, we used data collected from 5<sup>th</sup> grade students in ELT and matched comparison schools across cohorts in spring 2009. The analysis only includes data from schools achieving an average response rate of at least 70 percent.

We used a multi-level model that accounts for the clustering of students within schools. We model the effect of ELT by including a school level variable that indicates whether the student is in an ELT school or not. Once the sample was limited to those schools attaining a 70 percent response rate, we no longer had matched pairs of schools. Further, since we do not have pre-ELT data for students, we were unable to use school fixed effects to control for observed and unobserved, persistent characteristics of schools. Therefore, both school<sup>15</sup> and student-level<sup>16</sup> demographic characteristics are included in the model, to control for observable characteristics. In this way, these models do not produce as rigorous evidence as the models described above, and the findings should be interpreted with considerable caution.

To address questions 6 and 7 about the effect of ELT on teacher survey outcomes, we used data collected from Cohort 2 (2008) and Cohort 3 (2009) to understand the effects after one year of implementation, and from Cohort 1 (2008) and Cohort 2 (2009) to understand the effects after two years of implementation. The analysis only includes data from schools achieving an average response rate of at least 70 percent.

The model is quite similar to the one used for students; it 1) is a multi-level model that accounts for the clustering of teachers within schools, 2) includes an ELT indicator, and 3) includes school- and teacher-level<sup>17</sup> covariates. Again, these models do not produce as rigorous evidence as the models used above, and we should interpret the findings with caution.

### **Interpreting the Effects**

The goal of all of these analyses is to estimate the outcomes (e.g., MCAS scores for students or perceptions from teachers) in ELT schools and to test whether these outcomes are different from what we would have expected in the absence of ELT, often referred to as the counterfactual. Note that we observe the actual outcomes for ELT students and teachers, but it is not possible to observe the outcomes for these same individuals without ELT. Since we are unable to observe the outcomes of students and teachers in the absence of ELT, we use a statistical technique to estimate the counterfactual (e.g., what would have occurred in the absence of the intervention) using data from students and teachers in schools that did not implement the program (i.e., the matched comparison schools). Once the models have been estimated, we

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<sup>15</sup> These included the total enrollment, the percentage of students eligible for free and reduced priced lunch, and the percentage of minority students served by the school.

<sup>16</sup> These included gender, and whether or not the student reported speaking a language other than English most of the time at home.

<sup>17</sup> The school-level covariates are the same variables listed above; the teacher covariate was the number of years of teaching experience.

no longer refer to the responses as averages for matched comparison schools, then, since they do not accurately reflect the real outcomes in matched comparison schools. Rather, they are regression-adjusted estimates of what would have happened in non-ELT schools. Therefore, all findings are described in terms of the actual outcomes measured in ELT schools relative to the estimated outcomes in the counterfactual, or the non-ELT schools. If we observe differences, we will have evidence that we can attribute the effects to the implementation of ELT.

## Chapter 3: Outcome Findings

In this chapter, we begin by presenting a summary of key characteristics of the schools in the study sample, across cohorts by ELT status. We then present findings that address the research questions about the effect of ELT on schools, students, and teachers.

### CURRENT CHARACTERISTICS OF ELT AND MATCHED COMPARISON SCHOOLS

Exhibit 6 presents key characteristics of the ELT and matched comparison schools across cohorts in 2009, in order to provide important context for the findings presented in the remainder of this chapter. Recall that matched comparison schools were chosen based on their similarity to ELT schools prior to the start of ELT; below, we review the current characteristics of these schools (note that by current, we mean current as of the time of data collection about outcome variables analyzed later in the report).<sup>18</sup>

One finding of note is that the majority of ELT schools have been identified for improvement, corrective action, or restructuring based on their ELA or math achievement scores. Further, these schools tend to serve large proportions of low income students. Not surprisingly then, these schools are among the lower performing schools in the state.

**Exhibit 6: Current Characteristics of Sample Schools, by ELT Status**

	Number of Schools	
	ELT	MC
<b>Grade Span</b>		
Elementary school	10	10
K-8 school	4	4
Middle school	11	10
High school	1	1
<b>School Size</b>		
600 students or more	7	8
400-599 students	12	10
200-399 students	6	7
Fewer than 200 students	1	0
<b>Low Income Student Population</b>		
75 percent or more	11	8
50-74 percent	13	13
Less than 50 percent	2	4
<b>Minority Student Population</b>		
75 percent or more	9	6
50-74 percent	8	8
25-49 percent	8	8
Less than 25 percent	1	3

<sup>18</sup> In addition, this table extends Exhibit 3 in the Year 3 Implementation report by adding information about the matched comparison schools.

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**Exhibit 6: Current Characteristics of Sample Schools, by ELT Status**

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	Number of Schools	
	ELT	MC
<i>SPED Student Population</i>		
20 percent or more	12	15
10-19 percent	12	10
Less than 10 percent	2	0
<i>LEP Student Population</i>		
20 percent or more	8	6
10-19 percent	5	7
Less than 10 percent	13	12
<i>Met Aggregate Adequate Yearly Progress (AYP) in 2009</i>		
English language arts	17	13
Math	9	11
<i>ELA Accountability Status in 2009</i>		
No status (AYP met for previous two years)	4	3
Identified for improvement, corrective action, or restructuring	22	22
<i>Math Accountability Status in 2009</i>		
No status (AYP met for previous two years)	5	5
Identified for improvement, corrective action, or restructuring	21	20

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**EXHIBIT READS:** In the sample, there are 10 ELT elementary schools and 10 matched comparison elementary schools.

*Source: School-level downloaded from MA DOE website (2008-09 school year)*

Note: One Cohort 2 matched comparison school became a cohort 3 ELT school; in this table the school is included in the ELT data.

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## DESCRIPTIVE STATISTICS

Exhibit 7 presents descriptive statistics across the study sample of schools for the student outcomes measured with extant data. The first panel includes ELA, math, and science scores from the MCAS. The mean scores across all subjects and grades are negative, indicating that students in the study sample score well below average relative to the rest of the state; this is consistent with the AYP findings cited above.<sup>19</sup> The standard deviations are often of the same magnitude as the mean, indicating that schools vary widely on their average achievement scores, and the scores range substantially; the minimum and maximum scores for Grade 4 ELA scores, for example, spanned 2.6 standard deviations, with the lowest performing school in the study sample scoring 2 standard deviations below the state average and the highest performing school in the study sample scoring over half a standard deviation above the state average.

The wide variation across schools in our sample extends to the other outcomes displayed in the second and third panels of Exhibit 7.

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<sup>19</sup> Recall that on this scale, the state average score is zero.

**Exhibit 7: Descriptive Statistics for Student Outcomes Across All Schools (ELT and MC) in the First Year of Implementation**

	N	Mean	Median	Standard Deviation	Minimum	Maximum
<i>MCAS</i>						
ELA – Grade 3	27	-0.42	-0.37	0.39	-1.27	0.16
ELA – Grade 4	28	-0.35	-0.30	0.53	-2.04	0.56
ELA – Grade 7	29	-0.41	-0.40	0.40	-1.33	0.15
Math – Grade 4	28	-0.39	-0.30	0.45	-1.74	0.48
Math – Grade 6	35	-0.48	-0.50	0.41	-1.29	0.53
Math – Grade 8	29	-0.49	-0.53	0.35	-1.19	0.27
Science – Grade 5	32	-0.56	-0.51	0.41	-1.47	0.24
Science – Grade 8	29	-0.55	-0.49	0.42	-1.44	0.40
<i>Behavioral Indicators</i>						
Attendance rate	51	93.86	93.99	1.41	88.24	96.20
In-school suspension rate	51	0.03	0.00	0.07	0.00	0.37
Out-of-school suspension rate	51	0.09	0.05	0.11	0.00	0.52
Truancy rate	51	0.82	0.00	1.88	0.00	6.58
<i>8<sup>th</sup> grade MCAS Questionnaire</i>						
Using a school computer at least once a month for school work	25	0.75	0.73	0.16	0.28	1.00
Using a home computer at least once a month for school work	25	0.74	0.74	0.09	0.55	0.91
Using computers two or more hours per week	26	0.73	0.73	0.11	0.56	1.00
Spending at least three hours per week on homework	25	0.74	0.73	0.09	0.56	1.00
Planning to attend college	25	0.54	0.56	0.18	0.21	0.85

**EXHIBIT READS:** Across the 27 ELT and MC study schools serving 3<sup>rd</sup> graders, the mean ELA score was -.42. The median score was -.32, and the standard deviation is .39. The minimum score was -1.27 and the maximum score was .16.

*Source: Individual student records obtained from MA DOE*

## THE EFFECT OF ELT ON SCHOOL OUTCOMES

In this section, we provide estimates of the effect of ELT on schools. The statistical models used to compare the characteristics of the student and teacher populations (Exhibit 8) include school-level outcome data, and leverage pre-ELT to control for observable and unobservable, stable characteristics of schools, and data from matched comparison schools to control for year to year variation in outcomes. These models, therefore, control for many of the alternative hypotheses that might explain observed differences, and represent strong, quasi-experimental analyses. Recall that these models estimate outcomes for the counterfactual: outcomes that would have occurred in the absence of ELT. These

**Exhibit 8: Effect of ELT on Student and Teacher Characteristics, across Cohorts by Implementation Year**

	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value
<b>Implementation Year 1</b>				
<i>Student Population</i>				
Student Enrollment	489	512	-23	0.217
Percent low income	69.55	70.02	-0.47	0.698
Percent minority	61.30	58.18	3.12*	0.003
Percent male	51.38	51.61	-0.23	0.670
Percent special education	17.85	18.79	-0.93	0.145
Percent limited English proficient	13.72	14.14	-0.42	0.760
Percent first language not English	36.18	36.10	0.08	0.946
<i>Teacher Population</i>				
Number of FTE Teachers	39.1	39.4	-0.4	0.761
Percent of teachers licensed in their teaching assignment	97.56	97.90	-0.34	0.812
Percent of core academic teachers highly qualified	95.78	95.93	-0.15	0.928
Student-teacher ratio	12.43	12.49	-0.06	0.862
<b>Implementation Year 2</b>				
<i>Student Population</i>				
Student Enrollment	483	514	-31	0.238
Percent low income	73.57	75.80	-2.23	0.163
Percent minority	63.99	61.25	2.74*	0.033
Percent male	52.05	51.47	0.58	0.435
Percent special education	19.35	19.80	-0.45	0.603
Percent limited English proficient	14.31	15.22	-0.91	0.630
Percent first language not English	33.57	31.78	1.79	0.201
<i>Teacher Population</i>				
Number of FTE Teachers	37.4	39.0	-1.6	0.336
Percent of teachers licensed in their teaching assignment	97.44	100.05	-2.61	0.189
Percent of core academic teachers highly qualified	94.85	95.96	-1.11	0.612
Student-teacher ratio	13.00	12.50	0.50	0.333

**EXHIBIT READS:** During their first year of ELT implementation, ELT schools were comprised of 69.55 percent low income students, on average, as compared to 70.02 percent in non-ELT schools. The difference between the two groups was not statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: School-level files downloaded from MA DOE website.

Sample: Nine ELT and nine matched comparison schools for Cohorts 1 and 2; eight ELT and eight matched comparison schools for Cohort 3.

Note: Data on student populations from school year 2001-02 to 2008-09; data on teacher populations from 2003-04 to 2008-09.



results, then, present the actual observed mean for ELT schools compared to the average outcomes for this non-ELT counterfactual.

The models assessing the extent to which ELT schools experienced a disproportionate increase in students requiring extra instructional support (Exhibits 9-11) use student-level data to categorize students as having attended the same or different school in consecutive school years. These binary variables are then averaged at the school level, and t-tests are used to test whether observed differences are statistically significant. Data limitations preclude the use of control variables; therefore, the exhibits provide a comparison of the actual, observed mean outcomes for both ELT and MC schools.<sup>20</sup>

## KEY FINDINGS

- Measured characteristics of student and teacher populations were generally stable across the first and second year of ELT implementation. ELT and non-ELT schools were comparable across all characteristics except that ELT schools served a greater proportion of minority students than non-ELT schools.
- Although the number of new students enrolling in non-entry grades in ELT and matched comparison schools in the first implementation year did not differ significantly, those students new to ELT schools were significantly less likely to be special education students, students with limited English proficiency, or English language learners, compared with students new to the matched comparison schools.
- After the first implementation year in non-exit grades, students did not exit ELT and matched comparison schools at significantly different rates.

### Changes in Student and Teacher Characteristics Before and After ELT Implementation

A school's adoption of ELT could potentially cause parents and students to revisit their choices of where to attend school. Similarly, teachers may choose to review their options of where to teach, either to become part of an ELT school or to leave a school in the early stages of implementing ELT. Exhibit 7 summarizes the average differences in student and teacher populations in ELT and non-ELT schools in order to examine these effects after one and two years of implementation.

There is only one estimated difference between ELT and non-ELT schools across implementation years: on average, ELT schools serve more minority students than non-ELT schools. This difference attains statistical significance in the first year of implementation, and persists into year two. Across all other measured characteristics of students and teachers, there are no effects of ELT in either implementation year.

These findings have implications for the analyses of MCAS test scores, behavioral indicators, and MCAS questionnaire items about computer use, homework, and plans for college. These analyses all rely on pre-ELT data to control for effects of stable, persistent school-level factors. The analysis above indicates that schools are quite stable along several dimensions even after the implementation of ELT, providing some

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<sup>20</sup> Note that the analyses in this report used different models from those used in previous reports; Chapter 2 provides a detailed description of the models used in this report.

evidence that any observed differences are not simply due to a change in schools' student and teacher populations.

### The Effect of ELT on the Number of Students Who Require Extra Instructional Resources

There are special populations of students who require extra instructional resources: special education students, students with limited English proficiency, and English language learners. If these types of students are moving into or out of ELT schools at different rates than those observed in non-ELT schools, this could affect both the implementation and outcomes of the ELT program.

In order to understand the amount of student-level mobility in the schools, we examined the percentage of students in non-entry grades across cohorts in the first year of ELT implementation who attended the same school in the prior year, in order to understand whether new students were entering ELT schools at differential rates relative to the matched comparison schools.

Exhibit 9 shows that on average across cohorts, over 80 percent of the students in non-entry grades attended the same school in the prior year in both ELT and matched comparison schools. Student stability levels are slightly higher in matched comparison schools in both elementary and middle schools, though these differences are not statistically significant.

**Exhibit 9: Percent of Students in Non-Entry Grades in the First Implementation Year who Attended the Same School in the Prior Year**

	Actual ELT Mean	Actual MC Mean	Statistical Significance (p-value)
Elementary, K-8 schools	80%	83%	0.143
Middle, high schools	86%	90%	0.267

**EXHIBIT READS:** Eighty percent of ELT Elementary/K-8 students in non-entry grades in the first year of ELT implementation attended the same school in the year prior to ELT implementation. This compares to 83 percent of students in matched comparison schools, and the difference between the two groups was not statistically significant.

*Source: Individual student records obtained from MA DOE*

Sample: 11,242 elementary or K-8 students (5,751 matched comparison); 8,385 middle or high school students (4,318 matched comparison) in non-entry grades during the first implementation year.

Note: First year of ELT implementation was the 2006-07 school year for Cohort 1 schools, 2007-08 for Cohort 2 schools, and 2008-09 for Cohort 3 schools.

Students in entry grades of schools during the first year of implementation are not included.

P-values are from paired t-tests using school-level percentages by ELT status.

Incoming students did differ in terms of whether or not they were special education students, students with limited English proficiency, or English language learners (Exhibit 10). During the first year of implementation, students new to ELT schools were significantly less likely to have these characteristics than students new to matched comparison schools.

**Exhibit 10: Selected Characteristics of New Students in Non-Entry Grades During the First Implementation Year, by ELT Status**

	Percent of students in non-entry grades		Statistical Significance (p-value)
	Actual ELT Mean	Actual MC Mean	
Special Education	19%	23%*	0.000
Limited English proficiency	20%	25%*	0.001
English language learners	20%	26%*	<0.001

**EXHIBIT READS:** During their first year of ELT implementation, new students in non-entry grades at ELT schools were, on average, 19 percent special education students, as compared to 23 percent of new students in non-entry grades at non-ELT schools.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE.

Sample: 1,692 new students in non-entry grades in ELT schools and 1386 new students in non-entry grades in MC schools.

Note: First year of ELT implementation was the 2006-07 school year for Cohort 1 schools, 2007-08 for Cohort 2 schools, and 2008-09 for Cohort 3 schools.

Students in entry grades of schools during the first year of implementation are not included.

P-values are generated from chi-square tests using a table of school-level percentages by ELT status.

These data were also used to examine student mobility in non-exit grades (the analysis excludes the highest grade served in the school) out of ELT schools compared to matched comparison schools after one year of implementation (Exhibit 11). Although a slightly higher proportion of students in non-exit grades leave ELT schools relative to matched comparison schools, the difference is not statistically significant.

**Exhibit 11: Students Who Left Schools in Non-Exit Grades after the First Implementation Year, by ELT Status**

	Percent of Students Leaving in Non-Exit Grades		Statistical Significance (p-value)
	Actual ELT Mean	Actual MC Mean	
Elementary, K-8 schools	22%	17%	0.148
Middle, high schools	22%	16%	0.195

**EXHIBIT READS:** After their first year of ELT implementation, ELT schools lost 22 percent of their students in non-exit grades, on average, as compared to 17 percent of students in non-exit grades in non-ELT schools.

Source: Individual student records obtained from MA DOE

Sample: 8,864 elementary or K-8 students (4,329 ELT, 4,535 matched comparison); 4,573 middle or high school students (2,334 ELT, 2,239 matched comparison) in non-exit grades after the first implementation year.

Notes: The first year of ELT implementation was 2006-07 in Cohort 1 schools and 2007-08 in Cohort 2 schools.

Students in exit grades during the first year of ELT implementation are not included.

P-values are from paired t-tests using school-level percentages by ELT status.

## THE EFFECT OF ELT ON STUDENT OUTCOMES

In this section, we present findings from analyses estimating the effect of ELT on students. The models estimating the effects of ELT on MCAS scores, behavioral data, and outcomes from the 8<sup>th</sup> grade MCAS questionnaire include controls for many plausible alternative hypotheses that could explain observed differences between ELT and non-ELT schools. The models include school and year fixed effects, which control for all time invariant characteristics of schools, and all characteristics of particular calendar years that are common across schools. In addition, we include student-level covariates, in order to explain some of the variation in student outcomes that is unrelated to participation in ELT. Further, the models estimating the effects of ELT on behavioral indicators control for even more student-level characteristics by including student fixed effects.<sup>21</sup>

By including all of these controls, these models provide an estimate of what would have been observed in the absence of ELT, and findings are presented by comparing the actual, observed mean for ELT schools compared to estimated outcomes for this non-ELT counterfactual. Further, by explaining a great deal of variation in outcomes that is not affected by ELT, these controls generate a lot of precision in our estimates. This means that some differences may attain conventional levels of statistical significance but that are, in practical terms, quite small.

### KEY FINDINGS

- ELT had a significant, positive effect on 5<sup>th</sup> grade science MCAS scores in the second year of implementation. The difference corresponds to an effect size of .14 standard deviations, which can be considered educationally meaningful. ELT had no statistically significant effects on other MCAS outcomes in either the first or second year of implementation.
- ELT had a statistically significant, negative effect on school attendance rates in both the first and second implementation years, although the estimated difference of less than half a percentage point may not be practically meaningful.
- Overall, very few students received suspensions or were truant. However, ELT schools had slightly higher rates of out-of-school suspensions across both years. In the first year, ELT schools had a slightly lower, and in the second year, a slightly higher rate of in-school suspension. ELT had no effect on truancy rates.
- Eighth grade students in ELT schools were significantly more likely to report using a school computer for school work at least once a month in the first implementation year; there was no difference in the second year. ELT students were less likely to report spending at least three hours per week on homework in the second implementation year; there was no difference in the first year. ELT had no significant effect on 8<sup>th</sup> grade students' reports of using a home computer for school work at least once a month, using computers two or more hours per week, or plans to attend college.
- Fifth grade ELT students were significantly less likely to report participation in a non-academic club at school; other differences in participation in out-of-school activities were not significant. ELT had no effect on the percentage of students reporting they would spend at least three hours today in a variety of common after-school activities.

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<sup>21</sup> Note that the analyses in this report used different models from those used in previous reports; Chapter 2 provides a detailed description of the models used in this report.

- ELT had no effect on 5<sup>th</sup> grade students' perceptions about their relationships with their teachers, including spending more time with teachers this year. ELT also had no effect on 5<sup>th</sup> grades students' perceptions of the learning environment offered at their school or level of school engagement.

### **The Effect of ELT on MCAS Scores**

The estimated effects of ELT on MCAS scores across cohorts after one and two years of implementation are seen in Exhibit 12. The scores are presented as z-scores calculated using the raw MCAS scores for all the students in that grade and year in the state, such that the student with the average score in the state for that year would have a zero for a z-score. Positive scores would indicate that students' scores are above the state average, and negative scores would indicate scores below the statewide average. The estimated differences between students in ELT and non-ELT schools can be interpreted as an effect size, or a proportion of a standard deviation.

The top panel of Exhibit 12 displays the average differences in MCAS scores between students in ELT and non-ELT schools. The y-axis indicates the size of the difference between the two groups expressed as effect sizes. Therefore, bars that appear above the line labeled "0" indicate positive effects of ELT, indicating that ELT students scored higher than estimates of how students would have performed in the absence of ELT on those tests. Bars that appear below the line indicate negative effects of ELT such that the estimates of scores for the non-ELT group were higher than observed scores in the ELT group. A "\*" in the bar is used to denote differences large enough to attain conventional levels of statistical significance ( $p < .05$ ).

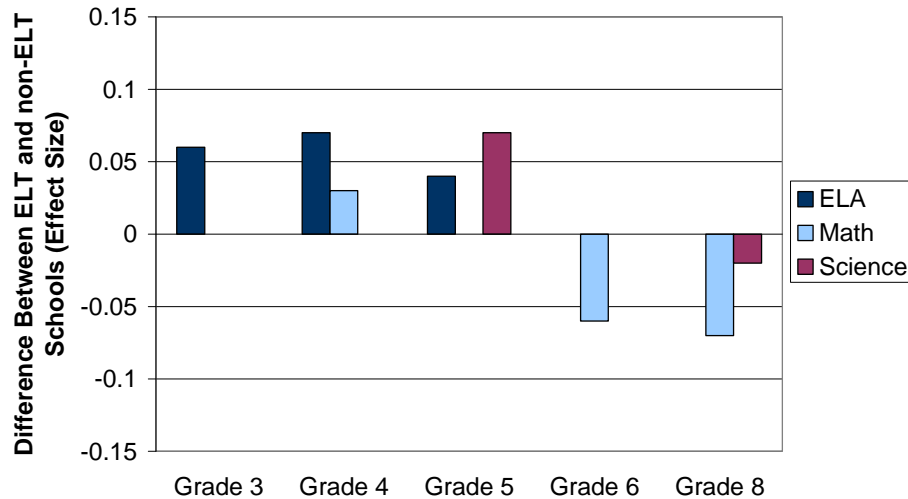
Results are presented by grade, as seen across the x-axis. The dark blue bars correspond to ELA scores, the light blue bars correspond to math scores, and the purple bars indicate science scores.

Exhibit 12 reveals that across both years, there were no differences in ELA scores across grades. The largest observed difference is in grade 4 in year one, where students in ELT schools outperform their non-ELT peers by 7 percent of a standard deviation, which is not statistically significant. There are no differences in math scores across grades and implementation year, and no differences between groups on the 8<sup>th</sup> grade science test.

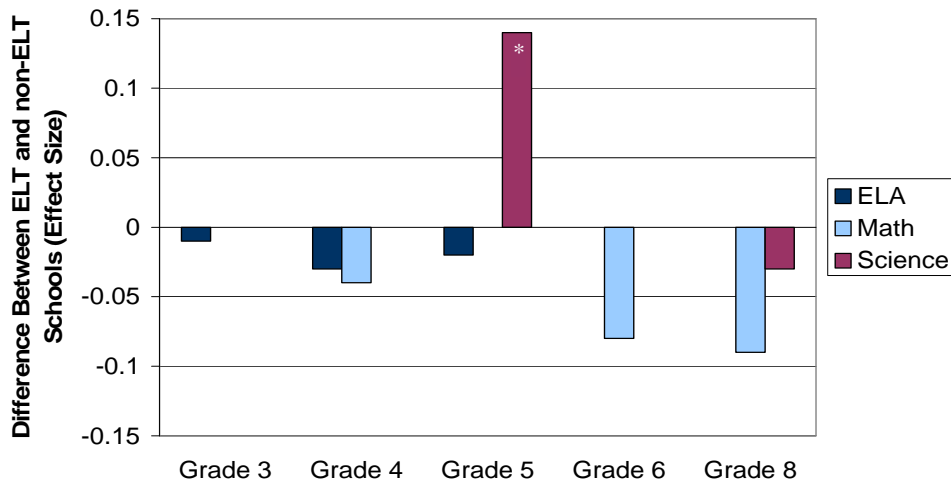
While students in ELT schools score slightly higher on average than their peers in non-ELT schools on the 5<sup>th</sup> grade science MCAS test, the effect size of .07 is not statistically significant. However, after two years of implementation, there is a small, statistically significant difference in favor of the ELT 5<sup>th</sup> grade students in 5<sup>th</sup> grade science.

**Exhibit 12: Effect of ELT on MCAS Subject/Grade Tests Across Cohorts, by Implementation Year**

**Effect of ELT on MCAS scores after One Year of Implementation**



**Effect of ELT on MCAS scores after Two Years of Implementation**



**EXHIBIT READS:** During their first year of implementation, there was a positive, 0.06 effect size difference between ELT and non-ELT students on 3<sup>rd</sup> grade ELA scores. This difference was not statistically significant.

Note: These findings are also presented in Exhibit B.6a and B.6b in Appendix B.

\* indicates that the difference attained conventional levels of statistical significance ( $p < .05$ ).

Source: Individual student records obtained from MA DOE

Sample—Year 1: Student test scores from ELT and matched comparison schools, Cohorts 1-3, from 2001-02 to 2008-09 for ELA/math and 2002-03 to 2008-09 for science: ELA grades 3, 12,759 records; ELA grade 4, 14,182; ELA grade 7, 31,079; Math grade 4, 14,210, Math grade 6, 32,492; Math grade 8, 31,590; Science grade 5, 16,214; and Science grade 8, 27,974 records Year 2: Student test scores from ELT and matched comparison schools, Cohorts 1 and 2, from 2001-02 to 2008-09 for ELA/math and 2002-03 to 2008-09 for science: ELA grade 3, 9,466 records; ELA grade 4, 9,576; ELA grade 7, 18,961; Math grade 4, 9,590, Math grade 6, 22,516; Math grade 8, 19,367; Science grade 5, 11,180; and Science grade 8, 16,821 records.

## ESTIMATED PRE-ELT ACHIEVEMENT TRENDS

The models that estimate differences between ELT and matched comparison schools rest on the notion that we can use pre-ELT achievement trends in ELT and MC schools to project achievement trends after the inception of ELT. Therefore, it is important and interesting to examine whether these groups of schools were on similar achievement trajectories *prior* to the beginning of ELT. Further, it is useful to understand whether these trajectories differ from both the overall achievement trends in their respective districts and in the state as a whole.

Exhibit 13 summarizes the differences in pre-ELT achievement slopes between ELT and MC schools. The first column displays the difference in the pre-ELT trajectories without any statistical adjustments for school characteristics. Next, we used a similar modeling strategy to estimate the pre-ELT achievement trends in ELT schools, MC schools, other schools in districts with ELT schools, and the state as a whole (column 3). These models control for the same factors included in the models estimating the post-ELT differences in achievement, and form the basis for the projections of future achievement against which we compare actual achievement in the post years.

Larger differences correspond to larger differences between the pre-ELT achievement trajectories of ELT and MC schools. If the comparison schools are good matches for the ELT schools, we would expect these differences to be small, indicating that the two groups of schools were on similar trajectories. If the difference in slopes is negative, it would mean the ELT schools are either improving more slowly or declining more rapidly than their MC counterparts. Positive differences, on the other hand, would mean the ELT schools are improving more rapidly or declining more slowly than their MC counterparts.

The first thing to note is that few of the differences in slopes are statistically significant, and second, none of the differences are statistically significant after controlling for school characteristics. This indicates that our matched comparison schools were largely on similar achievement trajectories prior to ELT, and that any differences are captured by controlling for school characteristics.

**Exhibit 13: Estimated Differences In Pre-ELT Trends Between ELT and MC Schools (Unadjusted and Adjusted)**

	Unadjusted		Adjusted	
	Diff	p	Diff	p
ELA – Grade 3	-0.014	0.39	-0.016	0.93
ELA – Grade 4	0.001	0.95	-0.028	0.33
ELA – Grade 7	-0.022*	0.02	-0.007	0.76
Math – Grade 4	0.026	0.09	-0.005	0.86
Math – Grade 6	-0.046*	<0.01	-0.026	0.43
Math – Grade 8	-0.001	0.97	-0.005	0.83
Science – Grade 5	-0.012	0.51	-0.031	0.32
Science – Grade 8	0.000	1.00	-0.007	0.68

**EXHIBIT READS:** The unadjusted difference in the slope of the pre-ELT grade 3 ELA achievement trend between ELT and MC schools is -0.014 points per year. This difference is not significant, indicating that the pre-ELT achievement trends are similar across the two groups of schools.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE

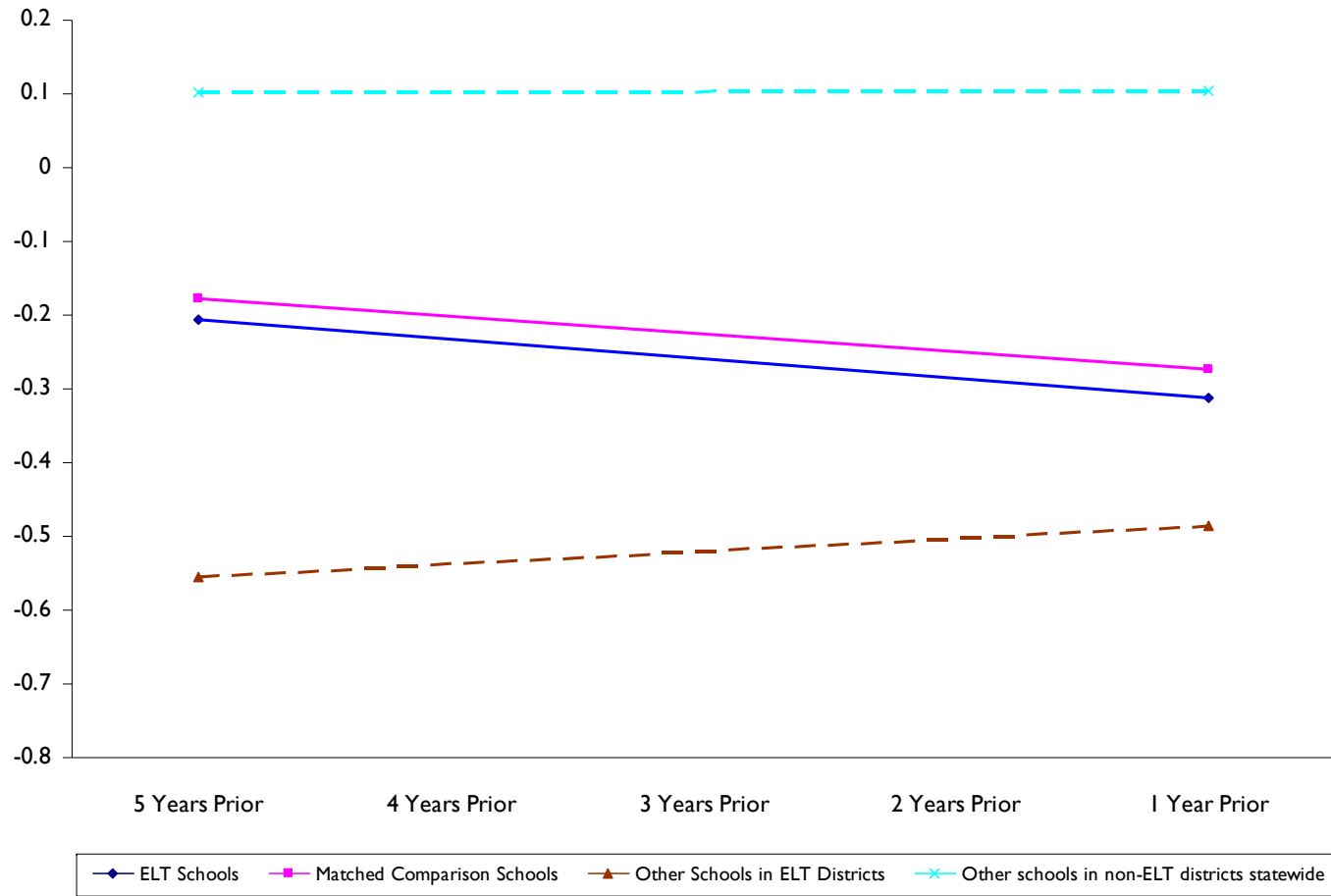
Sample—Student records from ELT and matched comparison schools, Cohorts 1-3, for 5 years prior to ELT (this corresponds to 2002-2006 for Cohort 1, 2003-2007 for Cohort 2, and 2004-2008 Cohort 3).

We also examined the pre-ELT achievement trends in ELT and MC schools compared to other schools in districts with an ELT school, as well as to the rest of the schools in the state. Exhibit 14 shows the average pre-ELT trends for 3<sup>rd</sup> grade ELA scores for these four groups of schools (graphs displaying the pre-ELT trends for the other MCAS outcomes appear in Appendix B, Exhibits B.7a - B.7g). The graph indicates that the ELT schools (the blue line) and the MC schools (the pink dashed line) were on very similar achievement trajectories *prior* to the onset of ELT. The MC schools slightly outperformed the ELT schools.<sup>22</sup> It is also not surprising that the ELT and MC schools all scored lower than the overall average achievement in the rest of the state. It is, however, interesting to note that ELT and MC schools scored somewhat higher than the other schools in the ELT districts prior to the inception of ELT.

<sup>22</sup> Recall that the statistical models that estimate the effect of ELT take into account differences in the pre-ELT levels of achievement between MC and ELT schools, so that ELT schools do not have to overcome any pre-ELT differences in order to demonstrate a positive (post-ELT) effect of ELT.



**Exhibit 14: ELA Grade 3 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

## The Effect of ELT on Student Behavioral Outcomes

The estimated effects of ELT on student attendance rates, in- and out-of-school suspensions, and truancy rates after one and two years of implementation are presented in Exhibit 15. After one year of implementation, the average student attendance rate for students in ELT schools was 93.7 percent and 94.1 percent for students in non-ELT schools; the estimated difference of 0.4 percentage points is statistically significant, yet the magnitude of this difference is unlikely to be practically significant. The difference is also evident in the second year of implementation.

**Exhibit 15: Effect of ELT on Student Behavioral Indicators, Across Cohorts By Implementation Year**

	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	Statistical Significance (p-value)
<b>Implementation Year 1</b>				
Attendance rate	93.72	94.10	-0.38*	<0.001
In-school suspension rate	0.03	0.04	-0.01*	<0.001
Out-of-school suspension rate	0.09	0.08	0.02*	0.003
Truancy rate	0.59	0.55	0.04	0.058
<b>Implementation Year 2</b>				
Attendance rate	93.69	94.00	-0.31*	<0.001
In-school suspension rate	0.04	0.03	0.02*	0.001
Out-of-school suspension rate	0.10	0.06	0.04*	<0.001
Truancy rate	0.79	0.83	-0.04	0.275

**EXHIBIT READS:** During their first year of implementation, the average attendance rate at ELT schools was 93.72 percent, as compared to 94.14 percent at non-ELT schools. The difference between the two groups was statistically significant.

Note: Due to rounding, some outcome values may appear larger or smaller than the estimated differences. See Appendix B, Exhibit B.8, for data by cohort and implementation year.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE

Sample—Year 1: Student records from ELT and matched comparison schools, Cohorts 1-3, from 2001-02 to 2008-09 for attendance and 2003-04 to 2008-09 for other measures: 206,196 student-year records for attendance; 155,778 student-year records for other measures. Year 2: Student records from ELT and matched comparison schools, Cohorts 1 and 2, from 2001-02 to 2008-09 for attendance and 2003-04 to 2008-09 for other measures: 143,285 student-year records for attendance; 106,787 student-year records for other measures.

The estimated percentages of students receiving in- and out-of-school suspensions during the first year of implementation are extremely small across ELT and non-ELT schools. Among this small number of incidents, however, there were small differences between the two groups on these measures. The first difference favors the ELT students and the second favors the non-ELT students, and both differences are statistically significant. The difference in out-of-school suspensions is also evident in the second year of implementation; ELT students received suspensions slightly more often than their non-ELT peers. However, the effect of ELT on in-school suspensions is reversed in the second year of implementation; ELT students also receive these suspensions at a slightly higher rate than their non-ELT peers in the second year.

Finally, after both one and two years of implementation, there were no significant differences in the truancy rates between ELT and non-ELT schools

### The Effect of ELT on 8<sup>th</sup> Grade Student MCAS Survey Responses

The study team used several questions from the 8th grade MCAS survey to address questions about the effect of ELT on student reported computer use, time spent on homework, and plans to attend college. The results of these analyses after one and two years of implementation are shown in Exhibit 16.

After one year of implementation, significantly more students in ELT schools reported using a computer at least once a month for school work compared to their peers in non-ELT schools (75 percent and 66 percent, respectively). This difference is not evident in the second year of implementation. There were no differences across groups in either implementation year in the percentage of students reporting using a home computer at least once a month or using a computer two or more hours per week.

**Exhibit 16: Effect of ELT on 8<sup>th</sup> Grade MCAS Questionnaire, Across Cohorts By Year of ELT Implementation**

Percent of 8 <sup>th</sup> grade students who reported:	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	Statistical Significance (p-value)
<b>Implementation Year 1</b>				
Using a school computer at least once a month for school work	75.46	66.43	9.03*	0.026
Using a home computer at least once a month for school work	70.42	70.58	-0.17	0.944
Using computers two or more hours per week	70.95	72.78	-1.84	0.231
Spending at least three hours per week on homework	49.74	56.08	-6.34	0.132
Planning to attend college	72.30	69.99	2.30	0.195
<b>Implementation Year 2</b>				
Using a school computer at least once a month for school work	64.40	62.39	2.02	0.806
Using a home computer at least once a month for school work	71.62	68.09	3.53	0.504
Using computers two or more hours per week	74.42	76.56	-2.14	0.404
Spending at least three hours per week on homework	43.60	55.11	-11.51*	0.041
Planning to attend college	70.48	70.49	-0.02	0.995

**EXHIBIT READS:** During their first year of implementation, 75.46 percent of 8<sup>th</sup> grade students at ELT schools reported using a school computer at least once a month for school work, as compared to 66.43 percent of 8<sup>th</sup> grade students at non-ELT schools. The difference between the two groups was statistically significant.

See Appendix B, Exhibit B.9, for data by cohort and implementation year.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE.

Sample: Eight grade students in ELT and matched comparison schools, 2005-06 to 2008-09. The student sample in implementation year 1 ranges from 13,396 to 13,663 students from Cohorts 1-3. The student sample in implementation year 2 ranges from 7,449 to 7,622 students from Cohorts 1 and 2.

In the first implementation year, students in ELT schools were slightly less likely to report spending at least three hours per week on homework than students in non-ELT schools; however this difference is not statistically significant. In the second implementation year, this difference is somewhat larger, and does attain statistical significance. Specifically, almost 44 percent of students in ELT schools report spending at least three hours per week on homework compared to 55 percent in non-ELT schools.

Finally, there were no differences across groups in either implementation year in the percentage of students that reported that they planned to go to college; across groups and years approximately 70 percent of students reported they plan to go to college.

### **The Effect of ELT on 5<sup>th</sup> Grade Student Survey Responses**

We fit models that rely on 5<sup>th</sup> grade student surveys to account for the clustering of students within schools, and include school- and student-level demographics to control for some of the alternative hypotheses that could explain observed differences between ELT and non-ELT schools.<sup>23</sup> However, because we do not have pre-ELT measures, we are unable to include school fixed effects. This means that we are unable to control for unmeasured characteristics that may differ between schools. These models are therefore less robust and have less statistical power than those described above (i.e., the models estimating effects on MCAS scores). This, coupled with the low response rates discussed above, suggests interpreting these results with some caution. Further, it is possible that even somewhat large differences between the groups may not attain conventional levels of statistical significance.

#### ***Students' Participation in Extracurricular, Out-of-School and Recreational Activities***

If students are staying at school longer, two questions naturally arise: What are they giving up? And what else are they getting at school? The study asked 5<sup>th</sup> graders to report whether or not they had participated in a number of activities during the school year, either in or outside of school. Exhibit 17 shows students' participation in school-based activities, out-of-school programs, and informal recreational activities. Not surprisingly, perhaps, more students in non-ELT schools attend an after-school program compared with ELT schools (56 percent versus 28 percent, respectively), although this finding is not statistically significant. The second largest difference between students at ELT and non-ELT schools is in the percentage that report participating in a non-academic club at school. A significantly greater percentage of students in matched comparison schools than ELT schools said they participated in a non-academic club at school (37 percent versus 17 percent, respectively).

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<sup>23</sup> Note that results presented in the Year 2 Report were generated using methods that did not control for these demographic characteristics.

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**Exhibit 17: Students' Participation in Activities, by ELT Status, Spring 2009**


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	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
After-school program	28%	56%	-27.7%	0.057
Non-academic club at school	17%	37%	-20.4%*	0.021
Newspaper, magazine	29%	13%	16.4%	0.079
Sports	80%	74%	6.1%	0.370
Religious youth group	28%	22%	5.8%	0.615
Academic club at school (chess club, etc.)	8%	13%	-4.4%	0.281
Student government	8%	5%	2.7%	0.477
Art, music, theater, dance	63%	65%	-2.7%	0.650
Honor Society	8%	6%	1.2%	0.827
Volunteer activity	32%	32%	-0.1%	0.987

**EXHIBIT READS:** In spring 2009, 28 percent of students at ELT schools and 56 percent of students at non-ELT schools reported that they participated in an after-school program during the school year. The difference between the two groups was not statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: MA ELT Student Survey, Item 11, 12, Matched Comparison Student Survey, Item 8, 9, Spring 2009

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 4.4 to 14.4 percent.

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Students were also asked to estimate the amount of time spent on out-of-school activities. Exhibit 18 presents the percentages of students who responded that they would spend 3 or more hours on that activity today (as a snapshot of time). There were no significant differences in the percentage of students in ELT and non-ELT schools who reported that they would spend at least 3 hours today: (a) playing sports or participating in an arts-based activity; (b) watching television, playing video games, and surfing the Internet; or (c) talking with or spending time with friends. It is interesting to note, however, that close to half of the students across ELT and non-ELT schools said they would spend 3 or more hours talking with or spending time with friends.

**Exhibit 18: Percent of Students Spending Three or More Hours in Activities, by ELT Status, Spring 2009**

	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
Talking with or spending time with friends	47%	50%	-3.2%	0.637
Watching TV, playing video games, surfing the Internet	31%	32%	-1.2%	0.897
Playing on sports teams or participating in arts, dance, music lessons, etc.	19%	20%	-0.3%	0.948

**EXHIBIT READS:** In spring 2009, 47 percent of students at ELT schools and 50 percent of students at non-ELT schools reported that they would spend three or more hours talking with or spending time with friends that day. The difference between the two groups was not statistically significant.

*Source: MA ELT Student Survey, Item 13, Matched Comparison Student Survey, Item 10, Spring 2009*

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 5.3 to 10.5 percent.

***Relationships with Teachers***

An additional intended outcome of Expanded Learning Time is increased opportunities for teachers and students to develop positive relationships. Students were asked to respond “true” or “false” to a series of statements about the quantity and quality of time with teachers. As seen in Exhibit 19, none of these results show a significant difference between the responses of ELT students and their non-ELT peers. It should be noted, however, that the majority of students in both types of schools reported that they are spending more time with their teachers in academic classes this year. Additionally, students had an overall positive perception of their relationships with teachers: more than 70 percent of students across ELT and non-ELT schools said they get along better with their teachers, they know their teachers better, and their teachers know more about them.

**Exhibit 19: Students' Perceptions about Relationships with Teachers, by ELT Status, Spring 2009**

	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
I feel like I can talk to a teacher about my problems this year.	70%	61%	8.8%	0.225
My teachers know more about me this year.	81%	72%	8.7%	0.072
I know my teachers better this year.	83%	77%	6.5%	0.137
I get along better with my teachers this year.	87%	81%	5.4%	0.440
I spend more time with my teachers in non-academic classes this year.	33%	38%	-4.6%	0.599
I spend more time with my teachers in my academic classes this year.	65%	62%	3.7%	0.667
I spend more time with my teachers outside of class this year.	10%	13%	-3.1%	0.624

**EXHIBIT READS:** In spring 2009, 70 percent of students at ELT schools and 61 percent of students at non-ELT schools reported that they felt like they could talk to a teacher about their problems during the 2008-09 school year. The difference between the two groups was not statistically significant.

*Source: MA ELT Student Survey, Item 17, Matched Comparison Student Survey, Item 13, Spring 2009*

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 1.8 to 2.6 percent.

***Students' General Perceptions of School, School Engagement, and School Disengagement***

In addition to responding to questions about their relationships with teachers, students were also asked about the learning environment offered at their school. Exhibit 20 presents students' perceptions of their school; there are no significant differences between responses from ELT and non-ELT students. Overall, however, the vast majority of students in both ELT and non-ELT schools indicated positive perceptions of their school and the learning opportunities provided. Over 90 percent of students think they are getting a good education at their school.

**Exhibit 20: Students' Perceptions of Their School, by ELT Status, Spring 2009**

	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
I like being at my school.	64%	79%	-15.0%	0.069
I look forward to going to school most of the time.	58%	70%	-11.8%	0.078
I feel like I learn a lot in school.	89%	95%	-6.1%	0.349
I am often bored in class.	43%	38%	5.4%	0.456
I feel safe on my way home from school.	90%	87%	2.6%	0.610
I am getting a good education at my school.	92%	95%	-2.4%	0.640
I feel safe while at school.	87%	89%	-1.8%	0.569

**EXHIBIT READS:** In spring 2009, 64 percent of students at ELT schools and 79 percent of students at non-ELT schools reported that they liked being at their school all or most of the time. The difference between the two groups was not statistically significant.

*Source: MA ELT Student Survey, Item 15, Matched Comparison Student Survey, Item 11, Spring 2009*

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 2.0 to 2.8 percent.

Students were also asked a series of questions relating to their engagement and disengagement in school. Students responded “always or almost always,” “sometimes,” or “never or almost never” to each statement. Exhibits 21 and 22 display the percentages of students responding “always or almost always” to the school engagement and school disengagement indicators. Exhibit 21 shows that students’ responses did not differ significantly on any of the six indicators of school engagement. Across ELT and non-ELT respondents, over 50 percent reported “always or almost always” for four of the six indicators. Similarly, Exhibit 22 shows that the distributions of students’ responses to all six indicators of school disengagement were not significantly different. In general, however, a small percentage of students reported “always or almost always” for the disengagement indicators; the only indicator with greater than even 10 percent of respondents reporting “always or almost always” was wanting class to end (32 percent for ELT students and 31 percent for students in non-ELT schools).



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**Exhibit 21: Student Engagement in School, by ELT Status, Spring 2009**

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	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
I follow the rules at school.	69%	77%	-7.6%	0.412
I check my schoolwork for mistakes.	42%	47%	-5.1%	0.485
I try my best at school.	85%	82%	2.7%	0.714
I finish my homework on time.	58%	60%	-2.5%	0.733
I pay attention in class.	64%	63%	0.9%	0.902
I am interested in the work I get to do in my classes.	30%	29%	0.8%	0.895

**EXHIBIT READS:** In spring 2009, 69 percent of students at ELT schools and 77 percent of students at non-ELT schools reported that they follow the rules at school all or most of the time. The difference between the two groups was not statistically significant.

*Source: MA ELT Student Survey, Item 16m, h, d, k, c, a, Matched Comparison Student Survey, Item 12m, h, d, k, c, a, Spring 2009*

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 2.1 to 3.6 percent.

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**Exhibit 22: Student Disengagement in School, by ELT Status, Spring 2009**

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	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
I get in trouble at school.	7%	2%	4.8%	0.178
I skip (cut) the entire school day.	4%	2%	1.8%	0.485
I skip (cut) classes during school.	3%	2%	1.6%	0.501
When I am in class, I just pretend I am working.	4%	5%	-1.5%	0.499
When I am in class, I can't wait for class to end.	32%	31%	1.1%	0.879
I try to stay home from school.	6%	6%	0.4%	0.929

**EXHIBIT READS:** In spring 2009, 7 percent of students at ELT schools and 2 percent of students at non-ELT schools reported that they “Always or Almost Always” get in trouble at school. The difference between the two groups was not statistically significant.

*Source: MA ELT Student Survey, Item 16b, o, n, e, l, j, Matched Comparison Student Survey, Item 12b, o, n, e, l, j, Spring 2009*

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 2.1 to 3.1 percent.

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Two potential physical consequences of students attending a longer school day are that they report being tired or hungry. Exhibit 23 presents students’ reports of these outcomes, neither of which are significantly different between ELT students and students in non-ELT schools. Twenty percent of students in ELT schools reported being tired and hungry versus 15 percent of students in non-ELT schools (not significantly different).

**Exhibit 23: Students’ Reports of Being Tired and Hungry at School, by ELT Status, Spring 2009**

	Percent of Students		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
I am tired at school.	20%	15%	5.0%	0.416
I am hungry at school.	20%	15%	4.9%	0.447

**EXHIBIT READS:** In spring 2009, 20 percent of students at ELT schools and 15 percent of students at non-ELT schools reported that they are “Always or Almost Always” tired at school. The difference between the two groups was not statistically significant.

Source: MA ELT Student Survey, Item 16f, g, Matched Comparison Student Survey, Item 12f, g, Spring 2009

Sample: 609 students

Note: Nonresponse rates across ELT and MC students and survey items range from 2.1 to 3.1 percent.

## THE EFFECT OF ELT ON TEACHER OUTCOMES

The following section presents results from models estimating the effect of ELT on teacher outcomes, as measured on the teacher surveys. These models account for the clustering of teachers within schools, and include school- and teacher-level demographics to control for some of the alternative hypotheses that could explain observed effects. However, since we do not have survey data prior to the beginning of ELT, we are unable to include school fixed effects in the model, to control for unmeasured characteristics of schools that may differ across the groups. Further, these models have somewhat low statistical power to detect effects, so differences between the groups that seem large may fail to attain conventional levels of statistical significance. For these reasons, in addition to the low response rates described above, this analysis is not as strong as those described above (i.e., the models estimating effects on MCAS scores or other extent data).<sup>24</sup>

### KEY FINDINGS

- After the first implementation year, teachers in ELT schools were significantly more likely to report that they were satisfied with their salary and that they would still become a teacher if they were to start over. Conversely, they were less likely to report that they were satisfied with being a teacher at their school. These differences do not, however, persist into the second year of implementation.
- Significantly more teachers in ELT schools reported thinking about transferring to another district compared to their peers in non-ELT schools after the second year; there were not differences in the first implementation year.
- There were no significant differences between ELT and non-ELT teachers on their perceptions of the teaching environment within their schools, district leadership, or parent involvement and student attitudes.

<sup>24</sup> Note that the analyses in this report used different models from those used in previous reports; Chapter 2 provides a detailed description of the models used in this report

- The vast majority of both ELT and non-ELT teachers agreed with positive statements about principal leadership, although ELT teachers were significantly less likely to agree that their principal was an effective manager after the first implementation year.

### Teachers' Attitudes towards Teaching

The teacher surveys asked teachers to respond to a variety of statements about their attitudes towards teaching as a profession as well as their satisfaction with teaching at their current school. Exhibits 24 through 29 present the percentage of ELT teachers reporting that they agreed or strongly agreed with each statement, compared to estimates in schools without ELT, after one and two years of implementation.

As seen in Exhibit 24, after one and two years of implementation, there is only one significant difference in the percentage of teachers reporting being satisfied with teaching as a profession between ELT schools and estimates in non-ELT schools: ninety percent of teachers in ELT schools agreed that if they could start over again, they would still become a teacher versus 82 percent of teachers in non-ELT schools.

**Exhibit 24: Satisfaction with Teaching as a Profession, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
If I could start over again, I would still become a teacher.	90%	82%	8%*	0.014
I plan to stay in the teaching profession until I retire.	94%	90%	4%	0.140
The stress and challenges of teaching aren't really worth it.	20%	19%	1%	0.873
Overall, I am very satisfied with being a teacher.	93%	94%	-0.3%	0.911
<b>2<sup>nd</sup> Year of Implementation</b>				
If I could start over again, I would still become a teacher.	89%	88%	1%	0.823
I plan to stay in the teaching profession until I retire.	90%	93%	-3%	0.369
The stress and challenges of teaching aren't really worth it.	20%	18%	2%	0.769
Overall, I am very satisfied with being a teacher.	94%	96%	-2%	0.502

**EXHIBIT READS:** After one year of implementation, 90 percent of teachers at ELT schools reported that if they could start over again, they would still become a teacher, compared to 82 percent of teachers at non-ELT schools. The difference between the two groups was statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 15c, d, h, a, Matched Comparison Teacher Survey, Item 8c, d, h, a, Spring 2009

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 5.9 to 7.7 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 4.2 to 6.5 percent

Teachers were also asked whether they were satisfied with their current teaching position. After one year of implementation, two findings are significant (Exhibit 25). The estimated percentage of teachers in non-ELT schools who agree that they are satisfied with being a teacher at their school (95 percent) is significantly greater than the percentage of teachers in ELT schools who agree with that statement (77 percent). Conversely, a significantly greater percentage of ELT teachers are satisfied with their salary (62 percent) than their non-ELT counterparts (44 percent). However, after two years of implementation, neither of these outcomes is significant. There is a significant difference in the percentage of teachers reporting thinking about transferring to another district between ELT schools and estimates in non-ELT schools after two years of implementation (there is no statistically significant difference after one year of implementation). Twenty-seven percent of ELT teachers think about transferring to another district versus 15 percent of teachers in non-ELT schools.

**Exhibit 25: Satisfaction with Teaching their Current Position, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
Overall, I am very satisfied with being a teacher at this school.	77%	95%	-18%*	0.010
I am satisfied with my teaching salary.	62%	44%	18%*	0.048
I think about transferring to another school.	36%	26%	10%	0.197
I think about transferring to another district.	27%	32%	-05%	0.506
<b>2<sup>nd</sup> Year of Implementation</b>				
Overall, I am very satisfied with being a teacher at this school.	85%	88%	-3%	0.503
I am satisfied with my teaching salary.	64%	63%	1%	0.819
I think about transferring to another school.	33%	29%	5%	0.466
I think about transferring to another district.	27%	15%	12%*	0.006

**EXHIBIT READS:** After one year of implementation, 77 percent of teachers at ELT schools reported that overall, they are very satisfied with being a teacher at their school, compared to 95 percent of teachers at non-ELT schools. The difference between the two groups was statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

*Source:* For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 15b, g, e, f, Matched Comparison Teacher Survey, Item 8b, g, e, f, Spring 2009

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 6.4 to 8.3 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 4.6 to 7.2 percent.

### Teachers' Perceptions of Students' Attitudes and School and District Leadership

After one year of implementation, teachers in ELT schools were generally more positive about the teaching environment within their schools in terms of collaborating with fellow teachers, being given support to teach children with special needs, and spending more time with students on instruction, than

were teachers in non-ELT schools, (Exhibit 26). However, these differences are not statistically significant. In the second year of implementation, ELT teachers are still generally more positive, but none of the differences are significant. The majority of all teachers across ELT and non-ELT schools agree with the four statements related to the teaching environment within their schools.

**Exhibit 26: Perception of Teaching Environment within their Schools, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
Teachers and students spend more instructional time together.	85%	75%	10%	0.069
Teachers share and discuss instructional practice.	83%	73%	10%	0.165
Teachers are involved in making important decisions for our school.	57%	60%	-3%	0.805
Teachers are given the support they need to teach children with special needs.	47%	47%	1%	0.963
<b>2<sup>nd</sup> Year of Implementation</b>				
Teachers and students spend more instructional time together.	86%	79%	7%	0.118
Teachers share and discuss instructional practice.	86%	77%	9%	0.104
Teachers are involved in making important decisions for our school.	66%	57%	9%	0.301
Teachers are given the support they need to teach children with special needs.	55%	57%	-1%	0.878

**EXHIBIT READS:** After one year of implementation, 85 percent of teachers at ELT schools reported that teachers and students spend more instructional time together, compared to 75 percent of teachers at non-ELT schools. The difference between the two groups was not statistically significant.

*Source: For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 23h., j, e, g, Matched Comparison Teacher Survey, Item 16g, e, d, f, Spring 2009*

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 4.9 to 7.8 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 5.9 to 8.4 percent.

As shown in Exhibit 27, after one and two years of implementation, non-ELT teachers generally have more positive perceptions of principal leadership than ELT teachers, but only one of these differences attains statistical significance. An estimated 91 percent of teachers in non-ELT schools agree that their principal is an effective manager who makes the school run smoothly versus only 71 percent of ELT teachers who agree with that statement. Overall, the vast majority of teachers in both groups agree with positive statements about principal leadership after one and two years of implementation.

**Exhibit 27: Perception of Principal Leadership, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
The principal is an effective manager who makes the school run smoothly.	71%	91%	-20%*	0.019
The principal communicates a clear vision for our school.	79%	92%	-3%	0.080
The principal is an instructional leader in our school.	69%	77%	-8%	0.325
The principal is interested in the professional development of teachers.	88%	92%	-4%	0.316
<b>2<sup>nd</sup> Year of Implementation</b>				
The principal is an effective manager who makes the school run smoothly.	74%	76%	-2%	0.845
The principal communicates a clear vision for our school.	79%	80%	-1%	0.912
The principal is an instructional leader in our school.	66%	73%	-7%	0.519
The principal is interested in the professional development of teachers.	85%	86%	-1%	0.883

**EXHIBIT READS:** After one year of implementation, 71 percent of teachers at ELT schools reported that the principal is an effective manager who makes the school run smoothly, compared to 91 percent of teachers at non-ELT schools. The difference between the two groups was statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 23j, k, l, i, Matched Comparison Teacher Survey, Item 16i, j, k, h, Spring 2009

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 3.8 to 6.5 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 4.5 to 6.6 percent.

Exhibit 28 presents teachers' perceptions of their district leadership. Although there are some differences in levels, none of the following differences are statistically significant. After one year of implementation, more teachers in ELT schools reported positive perceptions of their district leadership than in non-ELT schools, and after two years of implementation, teachers in ELT schools are slightly less positive than their non-ELT counterparts across every outcome in this domain.

**Exhibit 28: Perception of District Leadership, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
The district provides timely guidance on instructional practice, curriculum, etc.	65%	47%	18%	0.119
The district is responsive to school and teacher concerns.	51%	34%	18%	0.142
District leadership effectively manages our schools.	61%	45%	16%	0.245
The district leadership communicates a clear vision for our districts' schools.	72%	60%	12%	0.268
The district is interested in the professional development of teachers.	81%	70%	11%	0.285
<b>2<sup>nd</sup> Year of Implementation</b>				
The district provides timely guidance on instructional practice, curriculum, etc.	50%	61%	-11%	0.158
The district is responsive to school and teacher concerns.	41%	50%	-9%	0.229
District leadership effectively manages our schools.	47%	52%	-5%	0.432
The district leadership communicates a clear vision for our districts' schools.	58%	68%	-10%	0.260
The district is interested in the professional development of teachers.	69%	75%	-7%	0.447

**EXHIBIT READS:** After one year of implementation, 65 percent of teachers at ELT schools reported that the district provides timely guidance on instructional practice, curriculum, etc., compared to 47 percent of teachers at non-ELT schools. The difference between the two groups was not statistically significant.

*Source: For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 23t, s, u, r, v., Matched Comparison Teacher Survey, Item 16r, q, s, p, t., Spring 2009*

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 5.5 to 6.6 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 6.8 to 8.2 percent.

Finally, there are no significant differences between ELT and non-ELT teachers' perceptions of parent involvement and students' attitudes after one or two years of implementation (see Exhibit 29). After one year, only 22 percent of ELT teachers agree that parents play an active role in the functioning of their school versus an estimated 33 percent of teachers in non-ELT schools. After two years, however, the percentage of ELT teachers agreeing with this statement increases to 43, while the non-ELT estimate remains roughly the same. Similarly, after one year of implementation, 40 percent of ELT teachers agree that students take their school work seriously versus 49 percent of teachers in non-ELT schools; however, after two years of implementation, 60 percent of ELT teachers agree with this statement, while the non-ELT estimate remains constant.

**Exhibit 29: Perception of Parent Involvement and Student Attitudes, by Implementation Year**

	Percent of Teachers		Estimated Difference	Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean		
<b>1<sup>st</sup> Year of Implementation</b>				
Parents play an active role in the functioning of our school.	22%	33%	-11%	0.277
Students treat each other with respect.	47%	58%	-11%	0.345
Students take their school work seriously.	40%	49%	-9%	0.396
Students treat teachers with respect.	52%	60%	-7%	0.486
<b>2<sup>nd</sup> Year of Implementation</b>				
Parents play an active role in the functioning of our school.	43%	34%	8%	0.429
Students treat each other with respect.	56%	56%	0%	0.977
Students take their school work seriously.	60%	49%	11%	0.241
Students treat teachers with respect.	59%	63%	-4%	0.730

**EXHIBIT READS:** After one year of implementation, 22 percent of teachers at ELT schools reported that parents play an active role in the functioning of their school, compared to 33 percent of teachers at non-ELT schools. The difference between the two groups was not statistically significant.

*Source: For the 1<sup>st</sup> year of implementation, Spring 2008 Survey for Cohort 2 and Spring 2009 Survey for Cohort 3. For the 2<sup>nd</sup> year of implementation, Spring 2008 Survey for Cohort 1 and Spring 2009 survey for Cohort 2. MA ELT Teacher Survey, Item 23n, p, o, q, Matched Comparison Teacher Survey, Item 16l, n, m, o, Spring 2009*

Sample: 818 teachers for 1<sup>st</sup> year of implementation, 783 teachers for 2<sup>nd</sup> year of implementation

Note: For 1<sup>st</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 4.6 to 6.0 percent. For 2<sup>nd</sup> year of implementation, nonresponse rates across ELT and MC teachers and survey items range from 5.6 to 6.9 percent.



## Chapter 4: Conclusions and Recommendations for Future Research

In 2008-09, the Massachusetts Expanded Learning Time (ELT) initiative was in its third year, and now includes a total of 26 ELT schools distributed across three cohorts. An earlier report summarized the ways in which the ELT schools are implementing the initiative, and this report focuses on the outcomes of ELT for schools, students and teachers compared with those of matched comparison schools. We examined the differences between ELT and matched comparison schools across cohorts, examining the first year of implementation separately from the second year of implementation. Below, we summarize the statistically significant findings of differences between ELT and matched comparison schools for schools, students and teachers. We also discuss factors that may have influenced the findings on students' MCAS scores and provide recommendations for further research.

### SUMMARY OF EFFECTS OF ELT

The overall outcome findings include few differences in outcomes for schools, students and teachers between ELT and matched comparison schools. These include findings related to school-wide characteristics, students' academic achievement outcomes, student behaviors, and student and teacher attitudes.

In terms of comparisons between ELT and matched comparison schools' characteristics, ELT schools served a greater proportion of minority students than matched comparison schools, and ELT schools were significantly less likely to have as new students in non-entry years those who were identified as special education students, students with limited English proficiency, or English language learners; the number of students moving in and out of ELT and matched comparison schools was comparable.

In terms of academic achievement findings, 5<sup>th</sup> grade students in ELT schools had higher MCAS science scores than 5<sup>th</sup> graders in matched comparison schools. No other statistically significant differences were found between ELT and matched comparison schools on MCAS scores.

With regard to student behavioral outcomes, across grades, ELT had a slight, but significant effect on school attendance rates and on out-of-school suspensions for both implementation years. For 8<sup>th</sup> graders (based on MCAS survey items), students in ELT schools were more likely for only a single year of implementation to report using a school computer at least once a month (year one of implementation). In year two of implementation only, more 8<sup>th</sup> grade students in non-ELT schools reported spending at least three hours per week on homework. The only statistically significant difference found for 5<sup>th</sup> graders (based on their Abt-developed survey responses) was for ELT students to report less participation in non-academic clubs at school.

Teachers' perspectives on teaching in general and at their particular schools were assessed by Abt-developed surveys. High percentages (82 to 96 percent) of teachers in both ELT and matched comparison schools reported satisfaction with being teachers, although, in the first year of implementation only, significantly more teachers in ELT schools than in matched comparison schools (90 percent compared with 82 percent) agreed that they would become a teacher again if they could start over.

Teachers also reported their satisfaction with their particular teaching position. In the first year of implementation, teachers in ELT schools were significantly more likely to be satisfied with their salary than teachers in matched comparison schools. Conversely, they were less likely to agree that they were satisfied with being a teacher at their specific school. There was no difference between ELT and matched comparison teachers on these measures after the second implementation year. After no difference in the first implementation year, significantly more teachers in ELT schools reported thinking about transferring to another district compared to their peers in matched comparison schools after the second year.

Teachers were also asked questions regarding their perceptions of the teaching environment within their schools, district leadership, parent involvement and student attitudes. There were no significant differences on these topics between teachers in ELT and matched comparison schools.

In response to questions about principal leadership, the vast majority of both ELT and matched comparison teachers agreed with positive statements about principal leadership. However, ELT teachers were significantly less likely to agree that their principal was an effective manager in the first implementation year.

## **DISCUSSION OF FINDINGS ON ACADEMIC ACHIEVEMENT OUTCOMES**

As part of the implementation study of the ELT initiative (presented in an earlier report), the Abt study team conducted interviews with administrators at both ELT and matched comparison schools as well as focus groups with teachers at ELT schools. The qualitative findings based on these activities suggest possible reasons for the outcomes findings on students' MCAS scores.

No significant differences were found on MCAS scores in ELA and math between students in ELT and matched comparison schools. The interview and focus group findings indicated that both ELT and matched comparison administrators reported allotting additional time for ELA and math instruction in order to improve student achievement in these core academic areas. Among the 16 pairs of schools for which we had interview data from both the ELT and matched comparison school on time spent on ELA and math, the matched comparison for Cohorts 1 and 2 schools reported spending as much or almost as much time on ELA and math as did ELT schools. It is possible that having an ELT school in a district had an influence on the emphasis placed on ELA and math instruction. As noted by one district administrator, although the district had only one ELT school, ELT was viewed as a district-wide initiative and principals from all schools in the district were well aware of the ELT expectations. However, we do not have such district-level information from other district personnel.

Interviews with principals in ELT and matched comparison schools also provided data relevant to the finding reported above that, in the second implementation year, ELT 5<sup>th</sup> grade students' MCAS science scores were higher than those of 5<sup>th</sup> graders in matched comparison schools. In at least 10 ELT schools, principals and/or teachers reported being able to increase the amount of time spent on science and social studies instruction, because of the expanded school day. In contrast, the principals of matched comparison schools reported spending less time on science and social studies than on ELA and math; science and social studies periods were typically shorter or taught for only half of the school year in these matched comparison elementary schools.

## RECOMMENDATIONS FOR FURTHER RESEARCH

In the 2009-10 school year, the evaluation will focus on relating outcomes to data on implementation. In order to accomplish this, an implementation index will be developed which will allow schools to be rated in terms of their implementation. With groups of schools classified based on implementation, it will be possible to investigate any relationships between extent of implementation and outcomes. In addition, we plan to collect data from teachers in ELT schools to indicate whether they were allowed to “opt-out” of participation in their school’s ELT program, to explore whether outcomes from those teachers differ from those who “opted-in” or were not given the option.

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# Appendix A: Technical Appendix with Detailed Model Specifications

## ADDITIONAL DETAILS ON THE DATA USED FOR CHOOSING MATCHED COMPARISON SCHOOLS

Matching data were downloaded from publicly available datasets on the ESE website. To identify potential matched comparison schools, data from the year immediately prior to ELT implementation were used. For Cohort 1 schools, 2005–06 data were referenced, for Cohort 2 schools, 2006–07 data were referenced, and for Cohort 3 schools, 2007–08 data were referenced.

The Composite Performance Index (CPI) is a “100-point index combining the scores of students who take standard MCAS tests (the Proficiency Index) with the scores of those who take the MCAS-Alternate Assessment (MCAS-Alt) (the MCAS-Alt Index). The CPI is a measure of the extent to which students are progressing toward proficiency in ELA and mathematics, respectively.”

(<http://www.doe.mass.edu/sda/ayp/2008/glossary.doc>)

“The federal No Child Left Behind Act (NCLB) requires all schools and districts to meet or exceed specific student performance standards in English language arts (ELA) and mathematics by the year 2014. AYP determinations are issued yearly based on the performance of all students (the “aggregate”) and for individual student groups (“subgroups”) to gauge the interim progress toward the attainment of those goals. To make AYP in 2008, districts and schools must meet a student participation requirement, an additional attendance or graduation requirement, and either the State's 2008 performance target for that subject or the district, school or group's own 2008 improvement target. A group may also make AYP by reducing the percentage of non-proficient students by 10% from 2007 to 2008 under NCLB's Safe Harbor provision.” (<http://www.doe.mass.edu/sda/ayp/2008/glossary.doc>)

Districts, schools, and student subgroups are expected to make AYP in ELA and mathematics. Districts, schools, or subgroups that make AYP in consecutive years have no NCLB Accountability Status. Those that do not make AYP for two consecutive years or more may be identified for Improvement, Corrective Action, or Restructuring for students in the aggregate or for one or more student subgroups.

Improvement, Corrective Action, and Restructuring status all trigger specific consequences

(<http://www.doe.mass.edu/sda/ayp/2008/glossary.doc>).

### Model Specifications

The following statistical models were fit to produce findings addressing the research questions posed in this report.

#### *Model estimating the effect of ELT on characteristics of students and teachers in schools*

Data: Longitudinal, school-level data on the number or proportion of students and teachers with various characteristics in years prior to and after ELT.

The model includes school fixed effects, year fixed effects, and indicator variables that designate whether the school was an ELT school in a post year, as specified below.

$$Y_{jy} = \gamma_1(ELT\_PY1_{jy}) + \gamma_2(ELT\_PY2_{jy}) + V_j + T_y + \varepsilon_{jy}$$

Where:

- $Y_{jy}$  = outcome measure for school  $j$  in year  $y$   
 $ELT\_PY1_{jy}$  = one if the school  $j$  is an ELT school in its first post year after the implementation of ELT, and 0 otherwise  
 $ELT\_PY2_{jy}$  = one if the school is an ELT school in its second post year after the implementation of ELT, and 0 otherwise  
 $V_j$  = school fixed effects, modeled by a series of indicator variables for each school  
 $T_y$  = year fixed effect, modeled by a series of indicator variables for each year  
 $\varepsilon_{jy}$  = the usual school-year specific error term

The effect of ELT after one year of implementation is directly estimated as  $\gamma_1$ , the parameter estimate on the ELT\_PY1 term, and the effect after two years of implementation is estimated as  $\gamma_2$ , the parameter estimate on the ELT\_PY2 term.

***Model estimating the effect of ELT on student MCAS scores and 8<sup>th</sup> grade MCAS questionnaire responses***

Data: Longitudinal, student-level test scores or survey responses, by grade, in years prior to and after ELT.

The model includes school fixed effects, year fixed effects, student level demographic characteristics, and indicator variables that designate whether the school was an ELT school in a post year, as specified below. The error term also adjusts for the correlation of student scores within a school in a school year.

$$Y_{ijy} = \gamma_1(ELT\_PY1_{ijy}) + \gamma_2(ELT\_PY2_{ijy}) + \sum_{k=1}^K \gamma_{2+k}(Stud\_dem_{ijy}^k) + V_j + T_y + \varepsilon_{ijy}$$

Where:

- $Y_{ijy}$  = outcome measure for student  $i$  in school  $j$  in year  $y$   
 $ELT\_PY1_{ijy}$  = one if the student measure is from an ELT school in its first post year after the implementation of ELT, and 0 otherwise  
 $ELT\_PY2_{ijy}$  = one if the student measure is from an ELT school in its second post year after the implementation of ELT, and 0 otherwise  
 $Stud\_dem_{ijy}^k$  =  $k^{\text{th}}$  student-level demographic characteristic  
 $V_j$  = school fixed effects, modeled by a series of indicator variables for each school  
 $T_y$  = year fixed effect, modeled by a series of indicator variables for each year  
 $\varepsilon_{ijy}$  = the usual student-level error term

The effect of ELT after one year of implementation is directly estimated as  $\gamma_1$ , the parameter estimate on the ELT\_PY1 term, and the effect after two years of implementation is estimated as  $\gamma_2$ , the parameter estimate on the ELT\_PY2 term. Standard errors are corrected for the correlations between student outcomes within schools (within and across years) beyond what is captured by the school and year fixed

effects using the cluster-robust variance estimator (also known as the “sandwich” standard errors; White, 1984 and Liang and Zeger, 1986).

**Model estimating the effect of ELT on student behavioral indicators**

Data: Longitudinal, student-level behavioral measures across grades in years prior to and after ELT.

The model includes school fixed effects, year fixed effects, student fixed effects, and indicator variables that designate whether the school was an ELT school in a post year, as specified below. The error term also adjusts for the correlation of student scores within a school in a school year.

$$Y_{ijy} = \gamma_1(ELT\_PY1_{ijy}) + \gamma_2(ELT\_PY2_{ijy}) + S_i + V_j + T_y + \varepsilon_{ijy}$$

Where:

- $Y_{ijy}$  = outcome measure for student  $i$  in school  $j$  in year  $y$
- $ELT\_PY1_{ijy}$  = one if the student measure is from an ELT school in its first post year after the implementation of ELT, and 0 otherwise
- $ELT\_PY2_{ijy}$  = one if the student measure is from an ELT school in its second post year after the implementation of ELT, and 0 otherwise
- $S_i$  = student fixed effect, modeled by a series of indicator variables for each student
- $V_j$  = school fixed effects, modeled by a series of indicator variables for each school
- $T_y$  = year fixed effect, modeled by a series of indicator variables for each year
- $\varepsilon_{ijy}$  = a student-level error term

The effect of ELT after one year of implementation is directly estimated as  $\gamma_1$ , the parameter estimate on the ELT\_PY1 term, and the effect after two years of implementation is estimated as  $\gamma_2$ , the parameter estimate on the ELT\_PY2 term.

**Model estimating the effect of ELT on student survey responses**

Data: student-level responses from ELT and matched comparison schools to survey items in the 2008-09 school year.

$$Y_{ij} = \gamma_0 + \gamma_1 ELT_j + \sum_{k=1}^K \gamma_{1+k} Stud\_dem_{ij}^k + \sum_{k=1}^M \gamma_{1+K+m} Sch\_char_j^m + \mu_j + \varepsilon_{ij}$$

Where:

- $Y_{ij}$  = outcome measure for student  $i$  in school  $j$  in spring 2009
- $ELT_j$  = one if the student is in an ELT school, and 0 otherwise
- $Stud\_dem_{ij}^k$  =  $k^{th}$  student-level demographic characteristic
- $Sch\_char_j^m$  =  $m^{th}$  school-level demographic characteristic
- $\mu_j$  = a school-level error term that accounts for the fact that students are clustered within schools
- $\varepsilon_{ij}$  = a student-level error term

The effect of ELT is directly estimated as  $\gamma_1$ , the parameter estimate on the ELT term.

## Appendix B: Additional Results

**Exhibit B.1: Characteristics of Sample Schools, by Cohort and ELT Status**

	Number of Schools					
	Cohort 1		Cohort 2		Cohort 3	
	ELT	MC	ELT	MC	ELT	MC
<i>Grade Span</i>						
Elementary school	2	2	5	5	3	3
K-8 school	3	3	1	1	0	0
Middle school	4	4	2	1	5	5
High school	0	0	1	1	0	0
<i>School Size</i>						
600 students or more	4	1	2	3	1	4
400-599 students	2	4	3	2	7	4
200-399 students	3	4	3	3	0	0
Fewer than 200 students	0	0	1	0	0	0
<i>Low Income Student Population</i>						
75 percent or more	5	5	4	2	2	1
50-74 percent	4	2	5	6	4	5
Less than 50 percent	0	2	0	0	2	2
<i>Minority Student Population</i>						
75 percent or more	6	3	2	2	1	1
50-74 percent	1	4	4	3	3	1
25-49 percent	2	2	2	1	4	5
Less than 25 percent	0	0	1	2	0	1
<i>SPED Student Population</i>						
20 percent or more	6	6	4	3	2	6
10-19 percent	3	3	5	5	4	2
Less than 10 percent	0	0	0	0	2	0
<i>LEP Student Population</i>						
20 percent or more	4	2	2	2	2	2
10-19 percent	2	2	2	3	1	2
Less than 10 percent	3	5	5	3	5	4
<i>Met Aggregate Adequate Yearly Progress (AYP) in 2009</i>						
English language arts	5	3	5	4	7	6
Math	4	2	3	3	2	6
<i>ELA Accountability Status in 2009</i>						
No status (AYP met for previous two years)	2	1	1	1	1	1
Identified for improvement, corrective action, or restructuring	7	8	8	7	7	7



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**Exhibit B.1: Characteristics of Sample Schools, by Cohort and ELT Status**


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	Number of Schools					
	Cohort 1		Cohort 2		Cohort 3	
	ELT	MC	ELT	MC	ELT	MC
<i>Math Accountability Status in 2009</i>						
No status (AYP met for previous two years)	2	1	2	3	1	1
Identified for improvement, corrective action, or restructuring	7	8	7	5	7	7

**EXHIBIT READS:** In the sample, there are 2 ELT elementary schools and 2 matched comparison elementary schools in Cohort 1.

*Source: School-level files downloaded from MA DOE website (2008-09 school year).*

Note: One Cohort 2 matched comparison school became a Cohort 3 ELT school; in this table the school is included in the Cohort 3 ELT column.

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**Exhibit B.2: Effect of ELT on Student and Teacher Characteristics, By Cohort and Implementation Year**

	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value
<b>Cohort 1</b>												
<i>Student Population</i>												
Student Enrollment	480	514	-34	0.513	497	521	-24	0.644	568	527	40	0.442
Percent low income	74.47	76.60	-2.14	0.448	74.87	76.29	-1.42	0.612	76.92	78.61	-1.69	0.547
Percent minority	70.03	65.87	4.16*	0.049	71.07	65.96	5.11*	0.016	72.21	66.18	6.03*	0.005
Percent male	52.21	51.60	0.61	0.594	53.06	51.47	1.59	0.168	53.11	52.34	0.77	0.504
Percent special education	18.76	21.20	-2.44	0.093	20.10	21.13	-1.03	0.477	20.51	20.97	-0.46	0.749
Percent limited English proficient	12.12	11.18	0.95	0.754	13.89	13.63	0.26	0.932	15.98	14.50	1.48	0.624
Percent first language not English	35.41	35.13	0.28	0.914	37.30	33.84	3.46	0.182	37.96	32.41	5.54*	0.033
<i>Teacher Population</i>												
Number of FTE Teachers	42.4	42.9	-0.5	0.891	40.7	40.3	0.4	0.903	43.4	40.2	3.2	0.348
Percent of teachers licensed in their teaching assignment	95.83	96.06	-0.22	0.951	95.49	99.59	-4.10	0.262	96.84	102.78	-5.93	0.106
Percent of core academic teachers highly qualified	93.14	92.88	0.27	0.952	93.39	94.53	-1.14	0.796	95.41	97.16	-1.74	0.694
Student-teacher ratio	11.01	10.80	0.21	0.811	12.17	11.79	0.38	0.671	12.96	11.95	1.00	0.266
<b>Cohort 2</b>												
<i>Student Population</i>												
Student Enrollment	477	476	1	0.975	469	512	-43	0.172				
Percent low income	72.27	72.72	-0.45	0.851	72.28	74.39	-2.11	0.392				
Percent minority	57.46	54.17	3.28	0.084	56.91	56.27	0.65	0.740				
Percent male	50.61	51.65	-1.04	0.411	51.04	51.06	-0.02	0.990				
Percent special education	18.40	18.87	-0.47	0.693	18.60	18.98	-0.38	0.761				
Percent limited English proficient	15.02	15.14	-0.12	0.968	14.73	17.01	-2.28	0.453				
Percent first language not English	30.59	28.63	1.96	0.301	29.84	31.00	-1.15	0.554				
<i>Teacher Population</i>												
Number of FTE Teachers	35.5	36.4	-0.9	0.622	34.0	37.7	-3.7	0.056				
Percent of teachers licensed in their teaching assignment	98.49	99.25	-0.76	0.778	99.40	99.85	-0.45	0.871				

**Exhibit B.2: Effect of ELT on Student and Teacher Characteristics, By Cohort and Implementation Year**

	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	p-value
Percent of core academic teachers highly qualified	96.61	96.70	-0.09	0.970	96.31	96.14	0.17	0.943				
Student-teacher ratio	13.40	12.55	0.85	0.225	13.83	13.23	0.60	0.407				
<b>Cohort 3</b>												
<i>Student Population</i>												
Student Enrollment	520	528	-8	0.829								
Percent low income	60.06	56.10	3.95	0.175								
Percent minority	55.51	52.65	2.86	0.319								
Percent male	51.74	52.05	-0.30	0.803								
Percent special education	15.10	18.48	-3.38*	0.024								
Percent limited English proficient	14.50	13.27	1.23	0.670								
Percent first language not English	45.07	45.57	-0.50	0.883								
<i>Teacher Population</i>												
Number of FTE Teachers	39.4	39.7	-0.3	0.903								
Percent of teachers licensed in their teaching assignment	98.23	95.98	2.25	0.491								
Percent of core academic teachers highly qualified	97.49	96.17	1.31	0.724								
Student-teacher ratio	13.10	13.20	-0.10	0.875								

**EXHIBIT READS:** During their first year of ELT implementation, Cohort 1 ELT schools were comprised of 74.47 percent low income students, on average, as compared to 76.60 percent in non-ELT schools. The difference between the two groups was not statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records from MA DOE.

Sample: Cohort 1: Nine ELT and nine matched comparison schools. Cohort 2: Nine ELT and nine matched comparison schools. Cohort 3: Eight ELT and eight matched comparison schools.

**Exhibit B.3: Percent of Students in Non-Entry Grades in the First Implementation Year who Attended the Same School in the Prior Year, By Cohort**

	Percent of Students in Non-Entry Grades		
	Actual ELT Mean	Actual MC Mean	Statistical Significance (p-value)
<b>Cohort 1</b>			
Elementary, K-8 schools	78%	86%	0.038*
Middle schools	85%	86%	0.920
<b>Cohort 2</b>			
Elementary, K-8 schools	79%	82%	0.495
Middle, high schools	82%	93%	0.299
<b>Cohort 3</b>			
Elementary, K-8 schools	85%	83%	0.288
Middle schools	88%	91%	0.199
<b>Sample sizes (number of students)</b>			

**EXHIBIT READS:** Seventy-eight percent of ELT Cohort 1 Elementary/K-8 students in non-entry grades in the first year of ELT implementation attended the same school in the year prior to ELT implementation. This compares to 86 percent of students in non-ELT schools, and the difference between the two groups was statistically significant ( $p < .05$ ).

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE

Sample: Cohort 1: 3,709 elementary or K-8 students (1,863 ELT, 1,846 matched comparison); 2,620 middle school students (1,372 ELT, 1,248 matched comparison). Cohort 2: 5,009 elementary or K-8 students (2,420 ELT, 2,589 matched comparison); 1,820 middle or high school students (870 ELT, 950 matched comparison). Cohort 3: 2,524 elementary or K-8 students (1,208 ELT, 1,316 matched comparison); 3,945 middle school students (1,825 ELT and 2,120 matched comparison).

Notes: First year of ELT implementation was the 2006-07 school year for Cohort 1 schools, 2007-08 for Cohort 2 schools, and 2008-09 for Cohort 3 schools.

Students in entry grades of schools during the first year of implementation are not included.

P-values are from paired t-tests using school-level percentages by ELT status.

**Exhibit B.4: Selected Characteristics of New Students in Non-Entry Grades During the First Implementation Year, by ELT Status and Cohort**

	Percent of Students in Non-Entry Grades		
	Actual ELT Mean	Actual MC Mean	Statistical Significance (p-value)
<b>Cohort 1</b>			
Number of new students in non-entry grades	628	444	
Special Education	19%	24%	0.037*
Limited English proficiency	20%	26%	0.015*
English language learners' program	20%	28%	0.002*
<b>Cohort 2</b>			
Number of new students in non-entry grades	669	527	
Special Education	21%	23%	0.371
Limited English proficiency	20%	21%	0.805
English language learners' program	20%	21%	0.708
<b>Cohort 3</b>			
Number of new students in non-entry grades	395	415	
Special Education	18%	24%	0.062
Limited English proficiency	21%	29%	0.004*
English language learners' program	21%	29%	0.004*

**EXHIBIT READS:** During the first year of implementation, 19 percent of students in non-entry grades in ELT schools were special education students, as compared to 24 percent of students in non-entry grades in non-ELT schools. The difference between the two groups was statistically significant ( $p < .05$ ).

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE.

Notes: First year of ELT implementation was the 2006-07 school year for Cohort 1 schools, 2007-08 for Cohort 2 schools, and 2008-09 for Cohort 3 schools.

Students in entry grades of schools during the first year of implementation are not included.

P-values are generated from chi-square tests using a table of school-level percentages by ELT status.

**Exhibit B.5: Students Who Left Schools in Non-Exit Grades After the First Implementation Year, by ELT Status and Cohort**

	Percent of students leaving in non-exit grades		Statistical Significance (p-value)
	Actual ELT Mean	Estimated Non-ELT Mean	
<b>Cohort 1</b>			
Elementary, K-8 schools	18%	13%	0.264
Middle schools	19%	19%	0.812
<b>Cohort 2</b>			
Elementary, K-8 schools	25%	20%	0.356
Middle, high schools	26%	11%	0.158

**EXHIBIT READS:** After their first year of ELT implementation, ELT Elementary/K-8 Schools in Cohort 1 lost 18 percent of their students in non-exit grades, on average, as compared to 13 percent of students in non-exit grades in non-ELT schools. The difference between these groups was not statistically significant.

*Source: Individual student records obtained from MA DOE*

Sample: Cohort 1: 2,800 elementary or K-8 students (1,914 ELT, 1,886 matched comparison); 2,690 middle school students (1,398 ELT, 1, 292 matched comparison). Cohort 2: 5,064 elementary or K-8 students (2,415 ELT, 2,649 matched comparison); 1,883 middle or high school students (936 ELT, 947 matched comparison).

Note: The first year of ELT implementation was 2006-07 in Cohort 1 schools and 2007-08 in Cohort 2 schools.

Students in exit grades during the first year of ELT implementation are not included.

P-values are from paired t-tests using school-level percentages by ELT status.

**Exhibit B.6a: Effect of ELT on MCAS Subject/Grade Tests Across Cohorts, by Implementation Year**

	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference	Statistical Significance (p-value)
<b>Implementation Year 1</b>				
<i>Reading/ELA</i>				
Grade 3	-0.43	-0.49	0.06	0.465
Grade 4	-0.33	-0.40	0.07	0.149
Grade 7	-0.42	-0.46	0.04	0.439
<i>Math</i>				
Grade 4	-0.38	-0.40	0.03	0.557
Grade 6	-0.50	-0.43	-0.06	0.274
Grade 8	-0.48	-0.41	-0.07	0.265
<i>Science</i>				
Grade 5	-0.46	-0.54	0.07	0.118
Grade 8	-0.57	-0.55	-0.02	0.709
<b>Implementation Year 2</b>				
<i>Reading/ELA</i>				
Grade 3	-0.57	-0.55	-0.01	0.889
Grade 4	-0.48	-0.45	-0.03	0.813
Grade 7	-0.62	-0.60	-0.02	0.847
<i>Math</i>				
Grade 4	-0.48	-0.45	-0.04	0.636
Grade 6	-0.52	-0.44	-0.08	0.302
Grade 8	-0.54	-0.45	-0.09	0.417
<i>Science</i>				
Grade 5	-0.48	-0.62	0.14*	0.042
Grade 8	-0.77	-0.74	-0.03	0.755

**EXHIBIT READS:** During their first year of implementation, 3<sup>rd</sup> graders at ELT schools scored, on average, 0.43 standard deviations below the statewide mean on Reading/ELA, as compared to 0.49 standard deviations below the statewide mean at non-ELT schools. The difference between the two groups was not statistically significant.

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE

Sample—Year 1: Student test scores from ELT and matched comparison schools, Cohorts 1-3, from 2001-02 to 2008-09 for ELA/math and 2002-03 to 2008-09 for science: ELA grades 3, 12,759 records; ELA grade 4, 14,182; ELA grade 7, 31,079; Math grade 4, 14,210, Math grade 6, 32,492; Math grade 8, 31,590; Science grade 5, 16,214; and Science grade 8, 27,974 records Year 2: Student test scores from ELT and matched comparison schools, Cohorts 1 and 2, from 2001-02 to 2008-09 for ELA/math and 2002-03 to 2008-09 for science: ELA grade 3, 9,466 records; ELA grade 4, 9,576; ELA grade 7, 18,961; Math grade 4, 9,590, Math grade 6, 22,516; Math grade 8, 19,367; Science grade 5, 11,180; and Science grade 8, 16,821 records.

**Exhibit B.6b: Effect of ELT on MCAS Subject/Grade Tests, By Cohort and Implementation Year**

	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value
<b>Cohort 1</b>												
Reading/ELA												
Grade 3	-0.29	-0.30	0.01	0.921	-0.69	-0.19	-0.50*	<0.001	-0.68	-0.36	-0.32*	0.007
Grade 4	-0.09	0.00	-0.09	0.401	-0.35	-0.31	-0.03	0.801	-0.61	-0.21	-0.40*	0.010
Grade 7	-0.59	-0.67	0.08	0.356	-0.66	-0.69	0.03	0.834	-0.66	-0.77	0.10	0.374
Math												
Grade 4	-0.30	-0.06	-0.24	0.085	-0.40	-0.33	-0.07	0.457	-0.59	-0.13	-0.47*	<0.001
Grade 6	-0.48	-0.47	-0.01	0.913	-0.46	-0.48	0.02	0.814	-0.43	-0.47	0.04	0.751
Grade 8	-0.64	-0.43	-0.21*	0.032	-0.63	-0.47	-0.16	0.243	-0.61	-0.56	-0.05	0.820
Science												
Grade 5	-0.39	-0.45	0.05	0.606	-0.46	-0.52	0.06	0.672	-0.60	-0.63	0.03	0.836
Grade 8	-0.73	-0.70	-0.03	0.781	-0.88	-0.79	-0.09	0.476	-0.80	-0.76	-0.04	0.781
<b>Cohort 2</b>												
Reading/ELA												
Grade 3	-0.65	-0.83	0.18	0.139	-0.49	-0.69	0.20	0.075				
Grade 4	-0.51	-0.48	-0.03	0.793	-0.55	-0.58	0.02	0.888				
Grade 7	-0.14	-0.24	0.10	0.350	-0.52	-0.52	0.01	0.959				
Math												
Grade 4	-0.55	-0.50	-0.05	0.497	-0.53	-0.62	0.09	0.503				
Grade 6	-0.54	-0.58	0.04	0.692	-0.67	-0.34	-0.33*	0.002				
Grade 8	-0.40	-0.24	-0.16	0.145	-0.27	-0.21	-0.07	0.496				
Science												
Grade 5	-0.55	-0.60	0.05	0.608	-0.50	-0.61	0.11	0.259				
Grade 8	-0.68	-0.46	-0.22*	<0.001	-0.43	-0.37	-0.06	0.622				



**Exhibit B.6b: Effect of ELT on MCAS Subject/Grade Tests, By Cohort and Implementation Year**

	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Effect Size)	p-value
<b>Cohort 3</b>												
Reading/ELA												
Grade 3	-0.14	-0.07	-0.07	0.768								
Grade 4	-0.30	-0.31	0.00	0.934								
Grade 7	-0.31	-0.20	-0.11	0.327								
Math												
Grade 4	-0.25	-0.41	0.16	0.080								
Grade 6	-0.50	-0.35	-0.15	0.264								
Grade 8	-0.34	-0.24	-0.10	0.309								
Science												
Grade 5	-0.34	-0.38	0.05	0.575								
Grade 8	-0.29	-0.30	0.00	0.961								

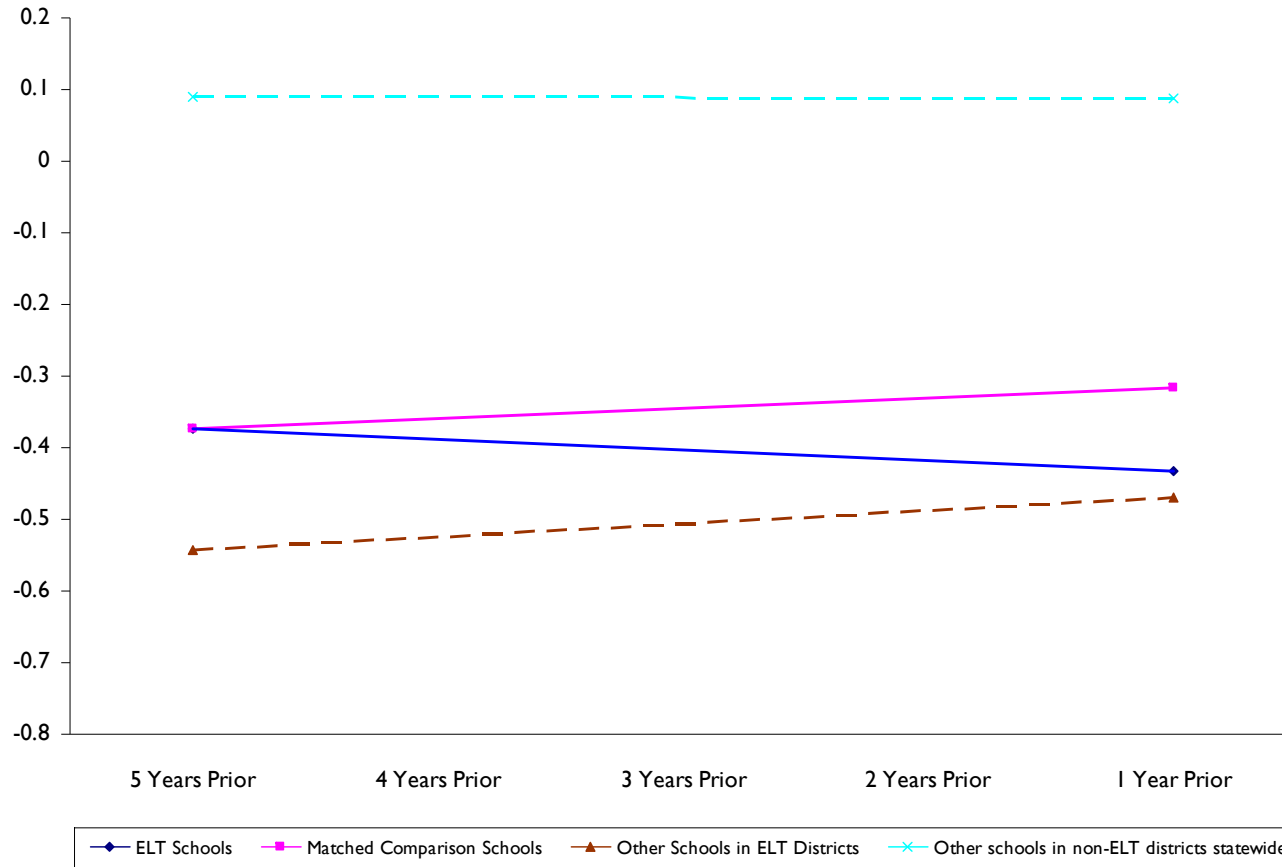
**EXHIBIT READS:** During their first year of implementation, 3<sup>rd</sup> graders at Cohort 1 ELT schools scored, on average, 0.29 standard deviations below the statewide mean on Reading/ELA, as compared to 0.30 standard deviations below the statewide mean at non-ELT schools. The difference between the two groups was not statistically significant.

A \* indicates that the difference was statistically significant at the p < .05 level.

Source: Individual student records obtained from MA DOE.

Sample: Student test scores from ELT and matched comparison schools, 2001-02 to 2008-09 for ELA/math and 2002-03 to 2008-09 for science: Cohort 1: ELA grade 3, 3,905; ELA grade 4, 3,918; ELA grade 7, 13,039; math grade 4, 3,921; math grade 6, 14,802; math grade 8, 13,386; science grade 5, 3,460; science grade 8, 11,706. Cohort 2: ELA grade 3, 5,561; ELA grade 4, 5,658; ELA grade 7, 5,819; math grade 4, 5,669; math grade 6, 7,602; math grade 8, 5,881; science grade 5, 7,616; science grade 8, 5,015. Cohort 3: ELA grade 3, 3,113; ELA grade 4, 4,606; ELA grade 7, 13,169; math grade 4, 4,620; math grade 6, 11,022; math grade 8, 13,246; science grade 5, 5,901; and science grade 8, 12,020.

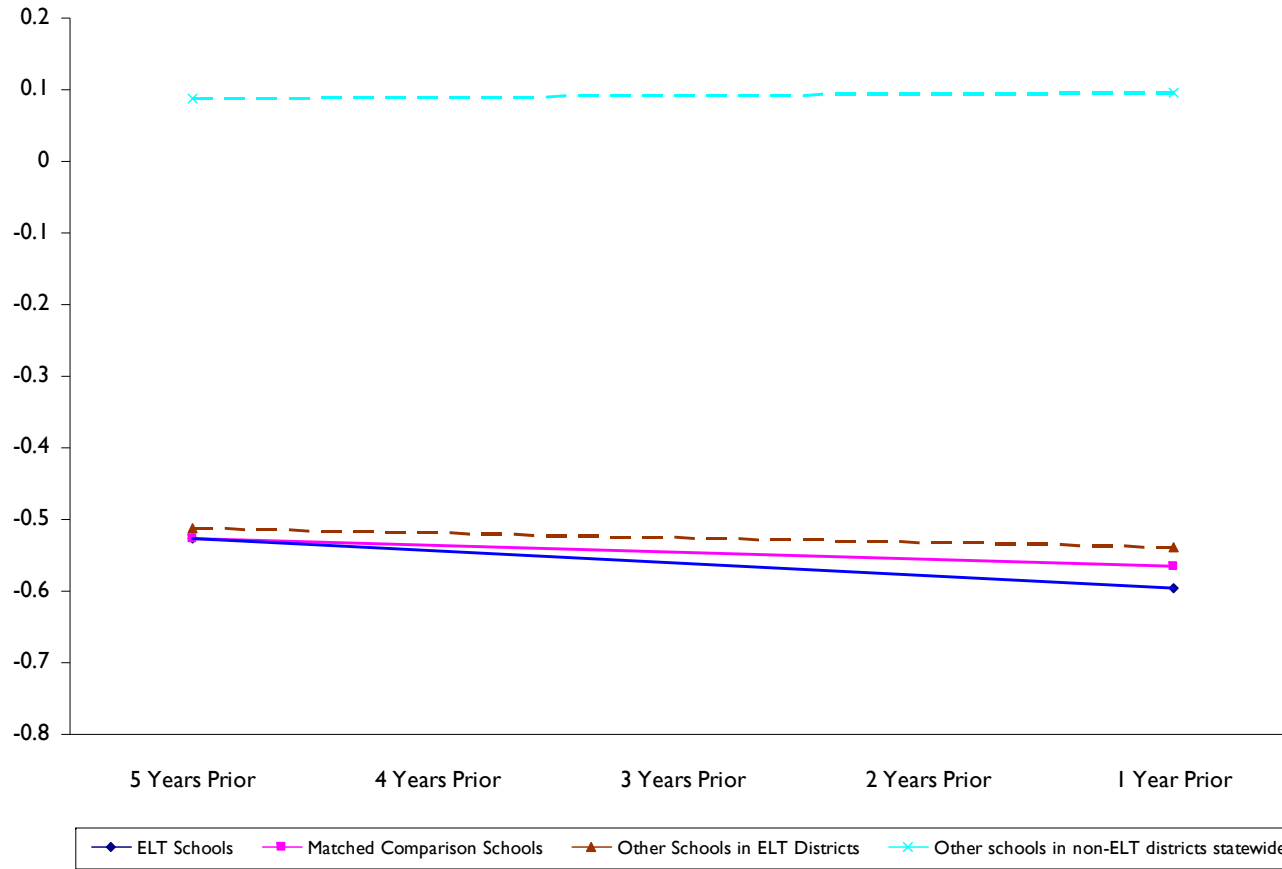
**Exhibit B.7a: ELA Grade 4 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

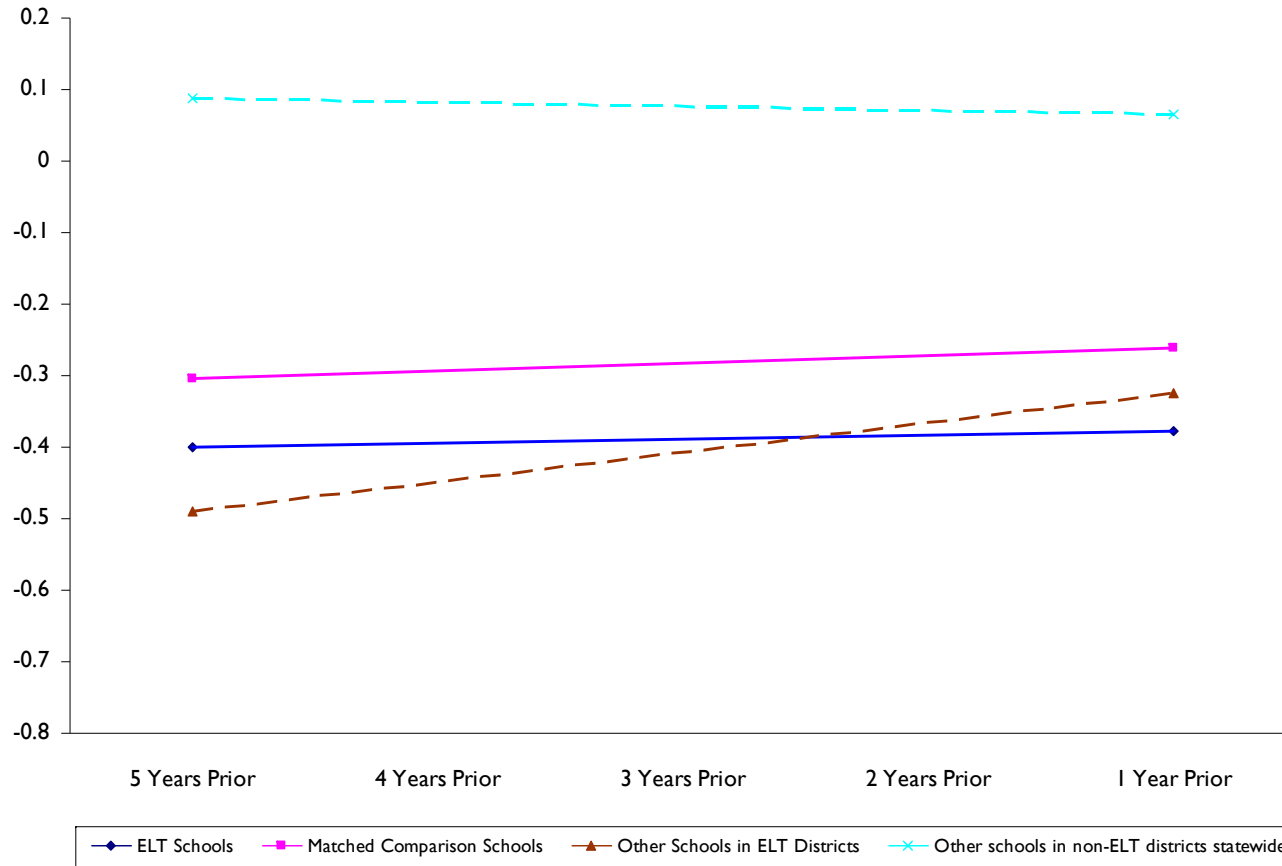
**Exhibit B.7b: ELA Grade 7 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

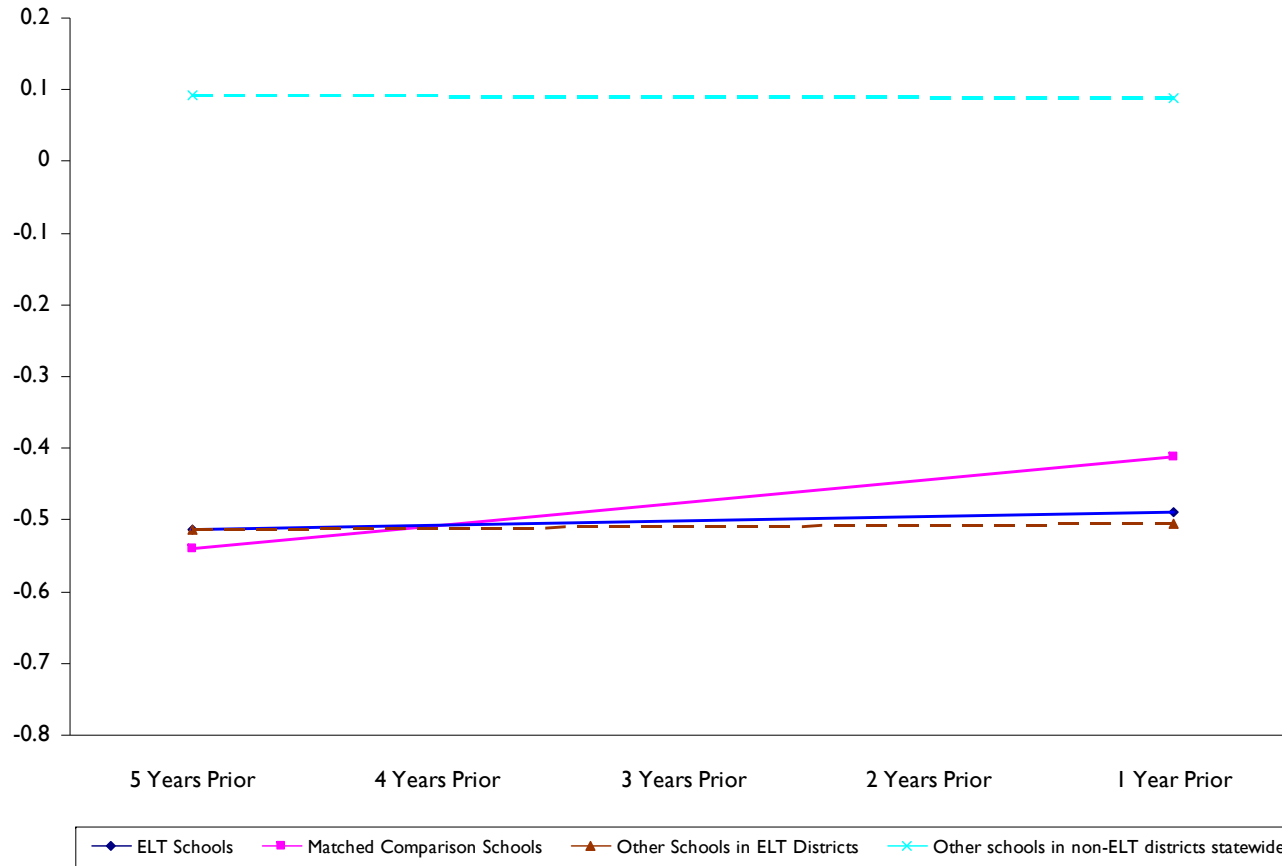
**Exhibit B.7c: Math Grade 4 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

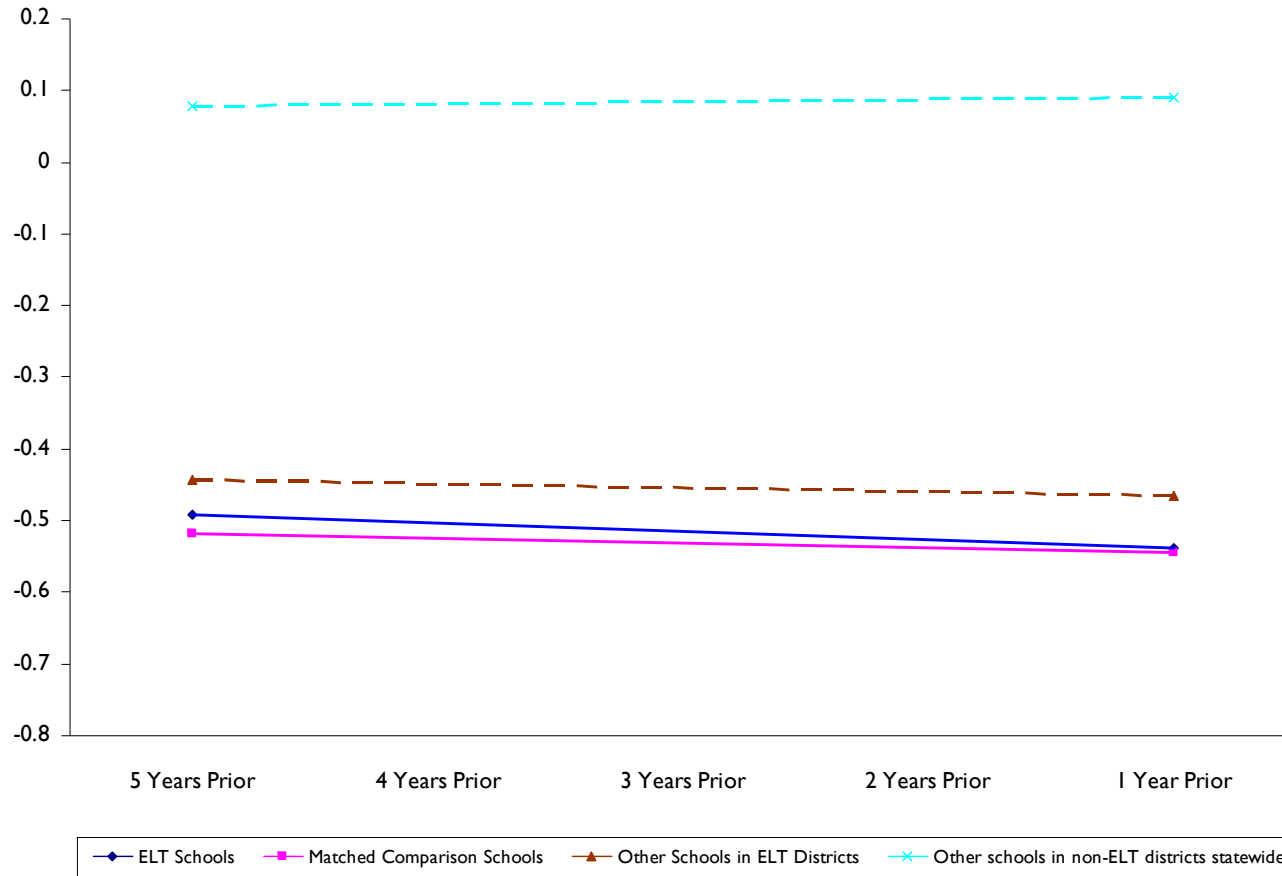
**Exhibit B.7d: Math Grade 6 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

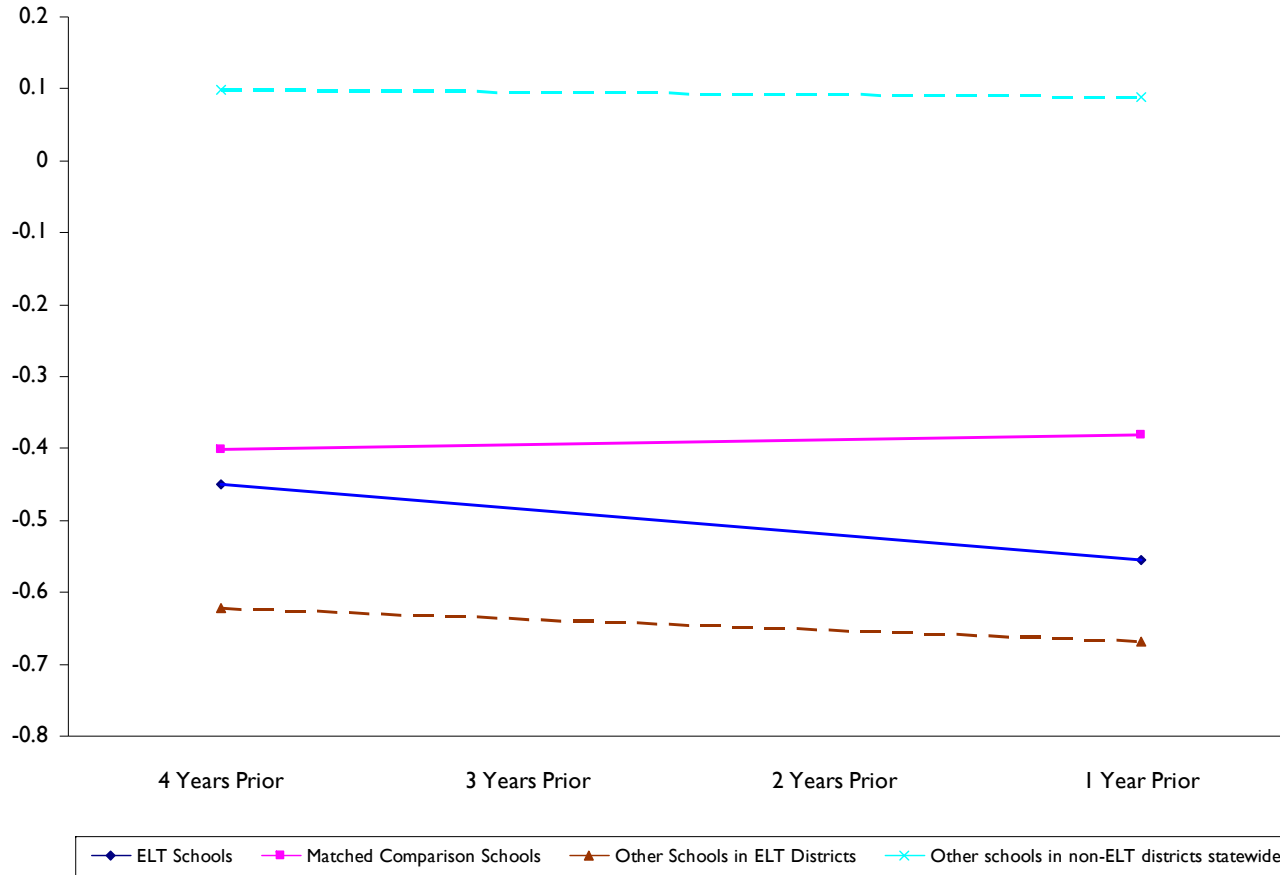
**Exhibit B.7e: Math Grade 8 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the five years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

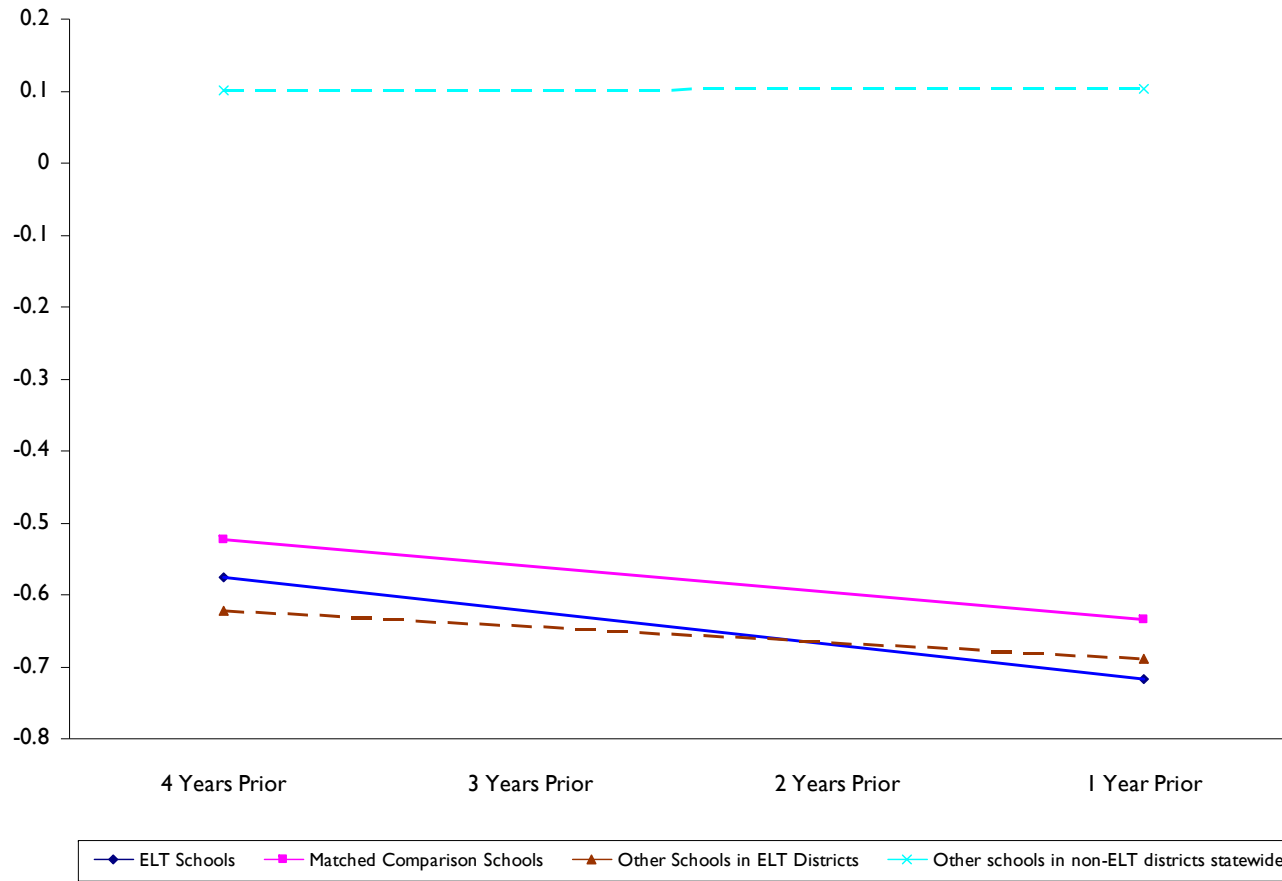
**Exhibit B.7f: Science Grade 5 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the four years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).

**Exhibit B.7g: Science Grade 8 MCAS Trends Prior to ELT Implementation**



Lines indicate estimated trends in average z-scores for each group over the four years prior to ELT implementation.

For ELT and matched comparison schools, implementation years were determined by cohort. For other schools in ELT districts (school districts with at least one ELT school), the first implementation year was defined as the earliest implementation year among ELT schools in the district. For all other schools, the first implementation year was defined as the earliest ELT implementation statewide (the first cohort of ELT schools).



**Exhibit B.8: Effect of ELT on Student Behavioral Indicators, by Cohorts and Implementation Year**

	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value
<b>Cohort 1</b>												
Attendance rate	93.77	94.07	-0.30*	0.015	93.92	94.26	-0.34*	0.015	93.63	93.98	-0.35*	0.027
In-school suspension rate	0.02	0.08	-0.06*	<0.001	0.05	0.05	0.00	0.793	0.07	0.02	0.06*	<0.001
Out-of-school suspension rate	0.10	0.09	0.01	0.384	0.07	0.08	-0.01	0.369	0.10	0.08	0.02	0.093
Truancy rate	0.42	0.37	0.05	0.258	0.42	0.28	0.14*	0.008	0.59	0.38	0.21*	<0.001
<b>Cohort 2</b>												
Attendance rate	93.47	93.69	-0.22	0.056	93.45	93.93	-0.48*	<0.001				
In-school suspension rate	0.04	0.03	0.01	0.297	0.03	0.01	0.02*	0.003				
Out-of-school suspension rate	0.11	0.06	0.06*	<0.001	0.14	-0.01	0.14*	<0.001				
Truancy rate	1.22	1.30	-0.08	0.102	1.18	1.24	-0.06	0.318				
<b>Cohort 3</b>												
Attendance rate	93.97	94.48	-0.51*	<0.001								
In-school suspension rate	0.00	0.07	-0.06*	<0.001								
Out-of-school suspension rate	0.05	0.06	0.00	0.842								
Truancy rate	0.	-0.11	0.26*	<0.001								

**EXHIBIT READS:** During their first year of implementation, the average attendance rate at Cohort 1 ELT schools was 93.77 percent, as compared to 94.18 percent at non-ELT schools. The difference between the two groups was statistically significant ( $p < .05$ ).

A \* indicates that the difference was statistically significant at the  $p < .05$  level.

Source: Individual student records obtained from MA DOE.

Sample: Student records from ELT and matched comparison schools, from 2001-02 to 2008-09 for attendance and 2003-04 to 2008-09 for other measures; Cohort 1, 74,364 student-year records for attendance and 55,040 for other measures; Cohort 2, 68,472 student-year records for attendance and 51,298 for other measures; Cohort 3, 67,279 student-year records for attendance and 51,922 for other measures.

**Exhibit B.9: Effect of ELT on 8th Grade MCAS Questionnaire, By Cohorts and Implementation Year**

Percent of 8th grade students who reported:	Implementation Year 1				Implementation Year 2				Implementation Year 3			
	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value	Actual ELT Mean	Estimated Non-ELT Mean	Estimated Difference (Percentage Points)	p-value
<b>Cohort 1</b>												
Using a school computer at least once a month for school work	67.73	68.71	-0.98	0.875	60.06	47.17	12.89	0.124	55.25	58.24	-2.98	0.816
Using a home computer at least once a month for school work	68.88	64.97	3.91	0.369	69.60	64.51	5.09	0.436	66.38	60.50	5.88	0.429
Using computers two or more hours per week	64.18	66.57	-2.40	0.214	74.28	78.51	-4.23	0.068	73.57	72.89	0.68	0.818
Spending at least three hours per week on homework	55.52	55.30	0.22	0.976	44.17	49.19	-5.02	0.561	49.12	52.85	-3.73	0.685
Planning to attend college	72.39	70.36	2.03	0.460	70.68	69.89	0.79	0.807	74.93	72.66	2.27	0.501
<b>Cohort 2</b>												
Using a school computer at least once a month for school work	82.57	83.27	-0.70	0.935	76.13	85.87	-9.74	0.339				
Using a home computer at least once a month for school work	68.00	79.68	-11.68*	<0.001	77.05	74.79	2.26	0.841				
Using computers two or more hours per week	72.43	76.26	-3.84	0.459	74.79	75.56	-0.77	0.902				
Spending at least three hours per week on homework	38.23	68.72	-30.50*	0.005	42.02	58.58	-16.56*	0.009				
Planning to attend college	63.09	69.07	-5.98*	0.038	69.92	65.26	4.66	0.268				
<b>Cohort 3</b>												
Using a school computer at least once a month for school work	82.16	71.82	10.34	0.075								
Using a home computer at least once a month for school work	73.98	75.45	-1.47	0.679								
Using computers two or more hours per week	79.54	77.23	2.30	0.386								
Spending at least three hours per week on homework	41.30	44.40	-3.10	0.624								
Planning to attend college	77.56	73.89	3.66	0.262								

**EXHIBIT READS:** During their first year of implementation, 67.73 percent of 8<sup>th</sup> grade students at Cohort 1 ELT schools reported using a school computer at least once a month for school work, as compared to 68.71 percent of 8<sup>th</sup> grade students at non-ELT schools. The difference between the two groups was not statistically significant.

Source: Individual student records obtained from MA DOE.

Sample: Eighth grade students in ELT and matched comparison schools, 2005-06 to 2008-09: Cohort 1, approximately 5,000 students; Cohort 2, approximately 2,500 students; Cohort 3, approximately 6,400 students. Specific sample sizes vary slightly by item due to differing item non-response rates.

## Appendix C: Year 3 Teacher and Student Surveys

Evaluation of Expanded Learning Time–Student Survey, Spring 2009 (ELT Schools) ..... C-1

END OF YEAR Student Survey, Spring 2009 (Matched Comparison Schools) ..... C-7

Evaluation of Expanded Learning Time–Teacher Survey, Spring 2009 (ELT Schools)..... C-12

Teacher Survey–For the Evaluation of the Expanded Learning Time Initiative  
(Matched Comparison Schools) ..... C-24

# Evaluation of Expanded Learning Time

## Student Survey Spring 2009



- Please do not put your name on this form. This survey is confidential. Teachers and other school personnel will not see your survey.
- This survey is to be filled out by students; parents should fill out the permission form.
- Please return your survey, sealed in the envelope provided, to your teacher. These sealed envelopes will then be sent to the evaluation team at Abt Associates, where the parent permission form will be detached from the survey and stored separately.
- Please use blue/black ink or a #2 pencil to complete the survey. Fill in circles completely.  
Like this: ● Not like this: ✓ ✗ /
- Thank you for taking time to tell us your views about your school.

This study is authorized by the Massachusetts Department of Elementary and Secondary Education and is being conducted by Abt Associates Inc.

**Parents/Guardian: THIS SURVEY IS TO BE FILLED OUT BY YOUR CHILD. Thank you.**

1. Name of your school: \_\_\_\_\_
2. What grade are you in this year? (Fill in ONE circle.)  Grade 5  Grade 8  Grade 10
3. Were you a student at this school last year?  Yes  No → **Go to Question 3a.**
- 3a.** If NO, which school did you attend last year? \_\_\_\_\_
4. Are you male or female?  Male  Female
5. How do you describe yourself? (Fill in ALL circles that apply.)
- American Indian or Alaskan Native
  - Asian
  - Black or African American
  - Hispanic or Latino/a
  - Native Hawaiian or other Pacific Islander
  - White
  - Other: \_\_\_\_\_
6. What languages do people in your house speak **most of the time**? (Fill in ALL circles that apply.)
- English  Spanish
  - Mandarin  Portuguese
  - Other—Which languages \_\_\_\_\_
7. How do you feel about having a longer school day this year? (Fill in ONE circle.)
- Very Unhappy    \_\_\_\_\_    →    Very Happy
- ①                      ②                      ③                      ④                      ⑤
8. How do your parents/guardians feel about having a longer school day this year? (Fill in ONE circle.)
- Very Unhappy    \_\_\_\_\_    →    Very Happy
- ①                      ②                      ③                      ④                      ⑤

9. This school year, about how much time do you spend on homework on **a normal school day**? (Fill in *ONE* circle.)
- More than 60 minutes
  - 31–60 minutes
  - 1–30 minutes
  - I have homework, but I don't do it.
  - I don't have homework.
10. This school year, have your grades improved, stayed the same or gotten worse? (Fill in *ONE* circle.)
- My grades have improved since last year.
  - My grades have stayed the same since last year.
  - My grades have gotten worse since last year.

## ACTIVITIES

11. Did you go to an after-school program this school year?  Yes  No (If **NO**, Skip to Question 12)

11 a. IF YES, is this program at your school or somewhere else? (Fill in *ALL* circles that apply.)  At school  Somewhere else

11 b. IF YES, how often do you **usually** go to this after-school program?  5 days per week  3 or 4 days per week  1 or 2 days per week  Less than one day per week

11 c. IF YES, do you **usually** do homework at this program?  Yes  No

11 d. IF YES, do you **usually** receive tutoring for your homework or schoolwork at this program?  Yes  No

12. Have you participated in the following **activities** this school year? *These activities can be school activities or activities outside of school.*

YES	NO	Activity (at school or outside of school)
<input type="radio"/>	<input type="radio"/>	Sports
<input type="radio"/>	<input type="radio"/>	Religious youth group
<input type="radio"/>	<input type="radio"/>	Volunteer activity
<input type="radio"/>	<input type="radio"/>	Art, music, theater, dance
<input type="radio"/>	<input type="radio"/>	Newspaper, magazine
<input type="radio"/>	<input type="radio"/>	Student government
<input type="radio"/>	<input type="radio"/>	Honor Society
<input type="radio"/>	<input type="radio"/>	Academic club at school (science club, etc.)
<input type="radio"/>	<input type="radio"/>	Non-academic club at school (chess club, etc.)
<input type="radio"/>	<input type="radio"/>	Other: _____

**12a. If YES to any of the activities (in Question 12), when do these activities happen? (Fill in ALL circles that apply.)**

- Before school
- During school
- After school
- On weekends

**13. Today, how many hours will you spend doing each of the following activities? Please make your best estimate.**

	<i>Less than 1 hour</i>	<i>1–2 hours</i>	<i>3–4 hours</i>	<i>5 or more hours</i>
a. Playing on sports teams or participating in arts, dance, music lessons, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Watching TV, playing video games, surfing the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Talking with or spending time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**14. Because of the longer school day, do you spend more, less, or the same amount of time doing the following activities this school year compared to last year? (Fill in ONE circle for each row.)**

	<b>This school year I spent...</b>		
	<i>more time</i>	<i>same time</i>	<i>less time</i>
a. Playing outside	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Watching television	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Playing video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Being on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Spending time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Spending time with family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Taking care of brothers/sisters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Working at a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Volunteering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Working on homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Playing on sports teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Participating in art, theater, music, or dance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Attending a church youth group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Going to the library	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Working with an adult on my homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Going to an after-school program at my school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Going to an after-school program outside of school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## YOU AND YOUR SCHOOL

15. Please fill in one circle for each row to indicate if each statement is true or false **most of the time** about your school this school year.

	<b>TRUE</b> <i>(all or most of the time)</i>	<b>FALSE</b> <i>(all or most of the time)</i>
a. I feel like I learn a lot in school.	<input type="radio"/>	<input type="radio"/>
b. I like being at my school.	<input type="radio"/>	<input type="radio"/>
c. I am often bored in class.	<input type="radio"/>	<input type="radio"/>
d. I look forward to going to school most of the time.	<input type="radio"/>	<input type="radio"/>
e. I am getting a good education at my school.	<input type="radio"/>	<input type="radio"/>
f. I feel safe while at school.	<input type="radio"/>	<input type="radio"/>
g. I feel safe on my way home from school.	<input type="radio"/>	<input type="radio"/>

16. How often does each statement describe you this school year? (Fill in **ONE** circle for each row.)

	<b>Never or Almost Never</b>	<b>Sometimes</b>	<b>Always or Almost Always</b>
a. I am interested in the work I get to do in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I get in trouble at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I pay attention in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I try my best at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. When I am in class, I just pretend I am working.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I am tired at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. I am hungry at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I check my schoolwork for mistakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I get good grades in school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I try to stay home from school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. I finish my homework on time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. When I am in class, I can't wait for class to end.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. I follow the rules at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. I skip (cut) classes during school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. I skip (cut) the entire school day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. I get my questions answered in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. What I learn in elective classes/enrichment activities helps me do better in math and English classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. I have trouble figuring out the answers in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## YOU AND YOUR TEACHERS

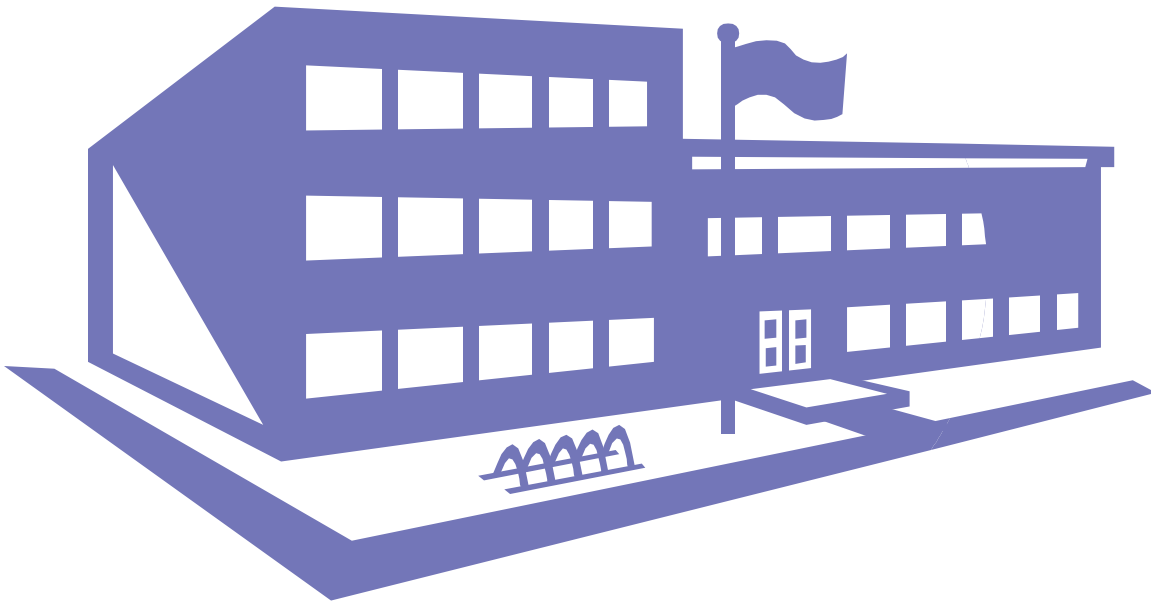
17. Please fill in one circle for each row to indicate if each statement is true or false **most of the time** about your relationships with your teachers this school year compared to last year.

	<b>TRUE</b> <i>(all or most of the time)</i>	<b>FALSE</b> <i>(all or most of the time)</i>
a. I spend more time with my teachers in my academic classes this year.	<input type="radio"/>	<input type="radio"/>
b. I spend more time with my teachers in non-academic classes this year.	<input type="radio"/>	<input type="radio"/>
c. I spend more time with my teachers outside of class this year.	<input type="radio"/>	<input type="radio"/>
d. I get along better with my teachers this year.	<input type="radio"/>	<input type="radio"/>
e. I know my teachers better this year.	<input type="radio"/>	<input type="radio"/>
f. My teachers know more about me this year.	<input type="radio"/>	<input type="radio"/>
g. I feel like I can talk to a teacher about my problems this year.	<input type="radio"/>	<input type="radio"/>

**THANK YOU FOR FILLING OUT THIS SURVEY!**

# **END OF YEAR Student Survey**

**Spring 2009**



- Please do not put your name on this form. This survey is confidential. Teachers and other school personnel will not see your survey.
- This survey is to be filled out by students; parents should fill out the permission form.
- Please return your survey, sealed in the envelope provided, to your teacher. These sealed envelopes will then be sent to the evaluation team at Abt Associates, where the parent permission form will be detached from the survey and stored separately.
- Please use blue/black ink or a #2 pencil to complete the survey. Fill in circles completely.

Like this: ● Not like this: ✓ ✗ ∅

- Thank you for taking time to tell us your views about your school.

This study is authorized by the Massachusetts Department of Elementary and Secondary Education and is being conducted by Abt Associates Inc.



## ACTIVITIES

8. Did you go to an after-school program this school year?  Yes  No (If NO, Skip to Question 9)
- 8a. IF YES, is this program at your school or somewhere else? (Fill in ALL circles that apply.)  At school  Somewhere else
- 8b. IF YES, how often do you **usually** go to this after-school program?  5 days per week  3 or 4 days per week  1 or 2 days per week  Less than one day per week
- 8c. IF YES, do you **usually** do homework at this program?  Yes  No
- 8d. IF YES, do you **usually** receive tutoring for your homework or schoolwork at this program?  Yes  No

9. Have you participated in the following **activities** this school year? These activities can be school activities or activities outside of school.

YES	NO	Activity (at school or outside of school)
<input type="radio"/>	<input type="radio"/>	Sports
<input type="radio"/>	<input type="radio"/>	Religious youth group
<input type="radio"/>	<input type="radio"/>	Volunteer activity
<input type="radio"/>	<input type="radio"/>	Art, music, theater, dance
<input type="radio"/>	<input type="radio"/>	Newspaper, magazine
<input type="radio"/>	<input type="radio"/>	Student government
<input type="radio"/>	<input type="radio"/>	Honor Society
<input type="radio"/>	<input type="radio"/>	Academic club at school (science club, etc.)
<input type="radio"/>	<input type="radio"/>	Non-academic club at school (chess club, etc.)
<input type="radio"/>	<input type="radio"/>	Other: _____
<input type="radio"/>	<input type="radio"/>	Other: _____

- 9a. If YES to any of the activities (in Question 9), when do these activities happen? (Fill in ALL circles that apply.)

- Before school  
 During school  
 After school  
 On weekends

10. **Today**, how many **hours** will you spend doing each of the following activities?  
Please make your best guess.

	<i>Less than 1 hour</i>	<i>1–2 hours</i>	<i>3–4 hours</i>	<i>5 or more hours</i>
a. Playing on sports teams or participating in arts, dance, music lessons, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Watching TV, playing video games, surfing the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Talking with or spending time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Please fill in one circle for each row to indicate if each statement is true or false **most of the time** about your school this school year.

	<b>TRUE</b> <i>(all or most of the time)</i>	<b>FALSE</b> <i>(all or most of the time)</i>
a. I feel like I learn a lot in school.	<input type="radio"/>	<input type="radio"/>
b. I like being at my school.	<input type="radio"/>	<input type="radio"/>
c. I am often bored in class.	<input type="radio"/>	<input type="radio"/>
d. I look forward to going to school most of the time.	<input type="radio"/>	<input type="radio"/>
e. I am getting a good education at my school.	<input type="radio"/>	<input type="radio"/>
f. I feel safe while at school.	<input type="radio"/>	<input type="radio"/>
g. I feel safe on my way home from school.	<input type="radio"/>	<input type="radio"/>

12. How often does each statement describe you this school year? (Fill in ONE circle for each row.)

	<i>Never or Almost Never</i>	<i>Sometimes</i>	<i>Always or Almost Always</i>
a. I am interested in the work I get to do in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I get in trouble at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I pay attention in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I try my best at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. When I am in class, I just pretend I am working.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I am tired at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. I am hungry at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I check my schoolwork for mistakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I get good grades in school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I try to stay home from school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. I finish my homework on time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. (CONTINUED) How often does each statement describe you this school year?  
(Fill in ONE circle for each row.)

	<b>Never or Almost Never</b>	<b>Sometimes</b>	<b>Always or Almost Always</b>
l. When I am in class, I can't wait for class to end.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. I follow the rules at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. I skip (cut) classes during school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. I skip (cut) the entire school day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. I get my questions answered in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. I have trouble figuring out the answers in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## YOU AND YOUR TEACHERS

13. Please fill in one circle for each row to indicate if each statement is true or false **most of the time** about your relationships with your teachers this school year compared to last year.

	<b>TRUE (all or most of the time)</b>	<b>FALSE (all or most of the time)</b>
a. I spend more time with my teachers in my academic classes this year.	<input type="radio"/>	<input type="radio"/>
b. I spend more time with my teachers in non-academic classes this year.	<input type="radio"/>	<input type="radio"/>
c. I spend more time with my teachers outside of class this year.	<input type="radio"/>	<input type="radio"/>
d. I get along better with my teachers this year.	<input type="radio"/>	<input type="radio"/>
e. I know my teachers better this year.	<input type="radio"/>	<input type="radio"/>
f. My teachers know more about me this year.	<input type="radio"/>	<input type="radio"/>
g. I feel like I can talk to a teacher about my problems this year.	<input type="radio"/>	<input type="radio"/>

**THANK YOU FOR FILLING OUT THIS SURVEY!**

# Evaluation of Expanded Learning Time

## Teacher Survey Spring 2009



- Please do not put your name on the survey. This survey is confidential. Individual survey results will not be shared with school, district or state personnel.
- Please return your survey, sealed in the provided envelope, to your school's evaluation liaison. Do not put your name on the envelope. The liaison will then send the sealed envelopes to the evaluation team at Abt Associates.
- Please use blue/black ink or a #2 pencil to complete the survey. Fill in circles completely.

Like this:  Not like this:

- Thank you for your time and input!

This study is authorized by the Massachusetts Department of Elementary and Secondary Education and is being conducted by Abt Associates.

## Evaluation of the Expanded Learning Time (ELT) Initiative

### TEACHER SURVEY INFORMATION SHEET

Abt Associates, a research firm in Cambridge, Massachusetts, is conducting an evaluation of the **Expanded Learning Time (ELT) Initiative** in collaboration with the Massachusetts Department of Elementary and Secondary Education. This study will assess schools' planning and implementation of ELT, as well as the initiative's impact on students, teachers, parents, schools, and other key stakeholders. We are asking all teachers in your school to complete a Teacher Survey for this evaluation. Your input is highly valuable in giving us a better understanding of how you, your students, and your school have experienced ELT.

Your participation in this study is completely voluntary. Refusing to participate will not involve any penalty or affect your employment in any way. It also will have no effect on your relationship with your school or with the Massachusetts Department of Elementary and Secondary Education.

It should take you approximately 15 minutes to complete the survey. It will include questions about the courses you teach, your expectations for and experiences with ELT to date, and other topics.

Your responses will be kept confidential to the extent provided by law. Under no circumstances will anyone from your school have access to any information that can be attributable to you. All teachers in ELT schools, including classroom teachers, specialists, and enrichment instructors, are being asked to complete this survey for a total of approximately 1,600 teachers. The minimum number of teachers at any one school is 19 and the minimum number of teachers at any one grade is 4.

Once you have completed your survey, please **seal** your survey in the provided envelope and return it to your school's evaluation liaison. Your liaison will then return the **sealed** envelopes to the evaluation team at Abt Associates. Completed surveys will be stored in a locked facility at Abt Associates Inc., accessible only to the study staff. These materials will be kept until 2013, at which time they will be destroyed.

Please contact Dr. Megan Horst, Outcomes Study Director, of Abt Associates Inc., at (617) 349-2570, if you have any questions regarding this research. Questions about study subjects' rights should be addressed to Ms. Marianne Beauregard of Abt Associates at (617) 349-2852. Calls to either number may incur regular long-distance toll charges.

If you agree to participate in the survey, please return your completed survey, **sealed** in the envelope provided, to your school's evaluation liaison. ***It is not necessary to sign this information sheet if you choose to complete the survey.*** We thank you for your cooperation and participation in this important study.





7. How many years have you been teaching at this school (including this year)?  
**Fill in the first circle if this is your first year at this school.**

- 1<sup>st</sup> year of teaching at this school
- 2–5 years
- 6–10 years
- 11–15 years
- 16–20 years
- More than 20 years

## Expanded Learning Time (ELT) Initiative

8. How involved were you in planning for ELT at your school?

- Very involved
- Somewhat involved
- A little involved
- Not involved at all

9. Are you working additional hours this school year compared to last school year?

- Yes
- No

9a. If YES, how many additional hours **per week** are you working this school year as a result of ELT? .....

Please enter the number of hours in the top row and fill in circles as appropriate. See page 7 for an example of how to complete this question.

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

9b. If YES, for what amount of the school year are you working additional hours?

- Entire school year
- Half of school year
- Less than half of the school year

9c. If YES, are you **required** by union-management agreement to work all, some, or none of the additional hours?

- All
- Some
- None

10. The following questions ask about how ELT has affected your teaching schedule this school year compared to last year. Please fill in the circle that completes the sentence for each statement.

<b>As a result of ELT...</b>	<i>(Fill in ONE circle for each row.)</i>		
a. ____ of the classes I teach are longer.	<input type="radio"/> all	<input type="radio"/> some	<input type="radio"/> none
b. I now teach ____ classes.	<input type="radio"/> more	<input type="radio"/> fewer	<input type="radio"/> the same number of
c. I spend ____ time grading homework.	<input type="radio"/> more	<input type="radio"/> less	<input type="radio"/> about the same amount of

11. *In general*, what are your feelings about your school changing to an expanded schedule? *(Fill in ONE circle.)*

Very Unhappy → Very Happy

①                       ②                       ③                       ④                       ⑤

## Perceptions of the Impact of Expanded Learning Time (ELT)

12. This school year, in your view, what has been the impact of the **longer day** in each of the following areas?

<b>Because of the longer day...</b>	<b><i>Has Improved</i></b>	<b><i>Has Remained the Same/ No Impact</i></b>	<b><i>Has Become Worse</i></b>
a. Student academic performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Student behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Student engagement in school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Student attendance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Students' opportunities for enrichment activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Students' participation in activities outside of school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Student safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Student fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Teacher and staff fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Homework completion rates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Your ability to use different instructional strategies (e.g., project-based learning, small-group learning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Your ability to cover more material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Your ability to differentiate instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Because of the longer day...</b>	<b>Has Improved</b>	<b>Has Remained the Same/ No Impact</b>	<b>Has Become Worse</b>
n. Your collaborative/common planning time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Your individual planning time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Your relationships with students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Your professional development opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Your connections with school partners (e.g. YMCA, cultural organizations, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Your communication with parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Implementation of the Expanded Learning Time (ELT) Initiative

13. Overall, how satisfied are you with the implementation of ELT at your school thus far? (Fill in ONE circle.)

Not Satisfied → Very Satisfied

①                       ②                       ③                       ④                       ⑤

14. Currently, how well is each of the following working in the expanded day at your school? (Fill in ONE circle for each row.)

	<b>Not well</b>	<span style="font-size: 2em;">→</span>	<b>Very well</b>	<b>Don't know or N/A</b>
a. ELT leadership provided within the school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. ELT leadership provided from the district	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Additional instruction in core subjects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. High-quality enrichment activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Staffing to support the longer day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Collaborative planning time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Individual planning time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Mental and physical health services for students during the longer day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Services during the longer day for students with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Services during the longer day for ELL students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Your Attitudes Toward Teaching

15. This item asks you to describe your *current* attitudes toward teaching using the statements below. To what extent do you agree or disagree with each statement? (Fill in ONE circle for each row.)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>N/A</b>
a. Overall, I am very satisfied with being a teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Overall, I am very satisfied with being a teacher at this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If I could start over again, I would still become a teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I plan to stay in the teaching profession until I retire.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I think about transferring to another school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I think about transferring to another district.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. I am satisfied with my teaching salary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The stress and challenges of teaching aren't really worth it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. My enthusiasm for teaching has increased since my school adopted an expanded schedule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I am more satisfied with my job since my school adopted an expanded schedule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. My teaching has improved since my school adopted an expanded schedule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

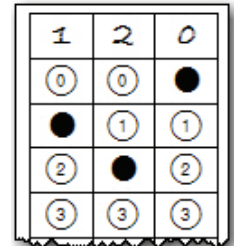
# Use of Time

16. Please report the **average amount of time** you spend each week on each of the activities described below. Please provide estimates for this school year as well as last school year. *If this is your first year teaching, please leave the column for last school year blank.* Enter the number of minutes in the top row and fill in circles as appropriate. For example, if you spend 60 minutes twice a week engaged in collaborative planning time, you would fill in 120 minutes.

**Work time beyond the school day** is defined as time teachers spend outside the school day to plan instruction, to grade assignments, etc. This includes work done on school grounds before or after the official school day for teachers as well as work done at home.

**Collaborative planning time** is defined as time set aside during the school day for grade level teachers, subject area teachers, or other groups of teachers to meet to discuss instructional practices, student work, etc.

**Individual planning time** is defined as time set aside during the school day for teachers to plan instruction. How teachers spend this time is up to each teacher. Teachers may choose to work independently or collaboratively.



Amount of time you spend/spent (minutes per week)												
This School Year						Last School Year						
a. Work time beyond the school day .....												
	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9
b. Collaborative planning time .....												
	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9
c. Individual planning time .....												
	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9

17. This school year, how often is time that is *scheduled* for your **collaborative planning time** replaced with an unrelated activity or responsibility (e.g., serving as a substitute teacher, attending a student disciplinary meeting)? (Fill in ONE circle.)

Almost never —————> Almost always

①                      ②                      ③                      ④                      ⑤

18. This school year, who *regularly* attends your **collaborative planning time**? (Fill in ALL circles that apply.)

- |  |  |
|--|--|
| <input type="radio"/> Classroom teachers within grade levels   | <input type="radio"/> Tutors                     |
| <input type="radio"/> Classroom teachers across grade levels   | <input type="radio"/> Special education teachers |
| <input type="radio"/> Classroom teachers within subject areas  | <input type="radio"/> ELL teachers               |
| <input type="radio"/> Classrooms teachers across subject areas | <input type="radio"/> Coaches or specialists     |
| <input type="radio"/> Partners                                 | <input type="radio"/> Principal                  |
|  | <input type="radio"/> Other: _____               |

19. This school year, what are typical activities that occur during this **collaborative planning time**? (Fill in ALL circles that apply.)

- |   |   |
|---|---|
| <input type="radio"/> Plan lessons and instruction            | <input type="radio"/> Discuss behavior management strategies              |
| <input type="radio"/> Receive coaching or mentoring           | <input type="radio"/> Coordinate instruction with special education staff |
| <input type="radio"/> Review student work                     | <input type="radio"/> Coordinate instruction with ELL staff               |
| <input type="radio"/> Interpret assessment results            | <input type="radio"/> Administrative functions                            |
| <input type="radio"/> Use assessment data to plan instruction |   |
| <input type="radio"/> Other: _____                            |   |

20. This school year, how often is time that is *scheduled* for your **individual planning time** replaced with an unrelated activity or responsibility (e.g., serving as a substitute teacher, attending a student disciplinary meeting)? (Fill in ONE circle.)

Almost never —————> Almost always

①                      ②                      ③                      ④                      ⑤

## Professional Development

**Professional Development** is defined as any activity in which a teacher is provided training about specific curriculum or programs, subject content material, or teaching strategies to use during instruction. Professional development includes school-based workshops, meeting with coaches, conferences, off-site trainings offered by the district, state, or other provider, etc.

21. This school year (2008–09), did you participate in any professional development activities?

- Yes                       No → **Skip to Question 22**

21a. If YES, this school year (2008–09), how many hours **in total** have you spent on professional development activities?

- Fewer than 10 hours  
 10–25 hours  
 26–50 hours  
 51–75 hours  
 76–100 hours  
 More than 100 hours

22. This school year (2008–09), have you been able to attend all professional development opportunities you wanted?

- Yes → **Skip to Question 23**                       No

22a. If NO, Please indicate the reasons below. (Fill in ALL circles that apply.)

- The professional development offering conflicted with my school's school day.  
 The professional development offering conflicted with family or personal commitments.  
 The professional development offering was held off-site.  
 No professional development was offered at my school.  
 No professional development was offered in my school district.  
 No release time and/or substitutes were provided.  
 I could not afford the cost of the professional development offering.  
 I was too exhausted to attend.  
 There were funding or budget constraints.  
 The topics offered were not what I needed and/or was interested in.  
 Other reason: \_\_\_\_\_



## Your School and District

23. This item asks you to describe your school and district this school year using the statements below. To what extent do you agree or disagree with each statement? (Fill in ONE circle for each row.)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a. Sufficient time during the school day is allotted for core subject area instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Sufficient time during the school day is allotted for collaborative teacher planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Sufficient time during the school day is allotted for individual teacher planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Teachers are supportive of Expanded Learning Time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Teachers are involved in making important decisions for our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Teachers share and discuss instructional practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Teachers are given the support they need to teach children with special needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Teachers and students spend more instructional time together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. The principal is interested in the professional development of teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. The principal is an effective manager who makes the school run smoothly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. The principal communicates a clear vision for our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. The principal is an instructional leader in our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. The principal is a strong advocate of Expanded Learning Time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Parents play an active role in the functioning of our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Students take their school work seriously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Students treat each other with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Students treat teachers with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. The district leadership communicates a clear vision for our districts' schools.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
s. The district is responsive to school and teacher concerns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. The district provides timely guidance on instructional practice, curriculum, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. District leadership effectively manages our schools.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. The district is interested in the professional development of teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

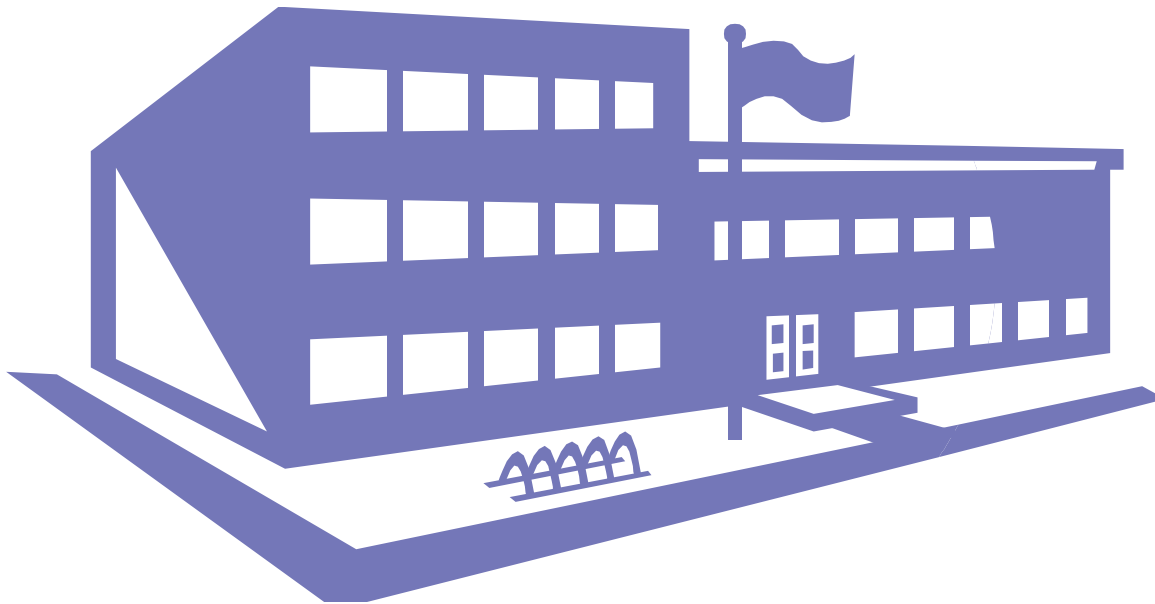
**24.** Please feel free to share below any additional thoughts about your school’s ELT schedule.

**THANK YOU FOR COMPLETING THIS SURVEY!**

**Please seal your survey in the envelope provided and return to your school’s evaluation liaison.**

# Teacher Survey

*For the Evaluation of the Expanded Learning Time Initiative*



- Please do not put your name on the survey. This survey is confidential. Individual survey results will not be shared with school, district or state personnel.
- Please return your survey, sealed in the provided envelope, to your school's evaluation liaison. Do not put your name on the envelope. The liaison will then send the sealed envelopes to the evaluation team at Abt Associates.
- Please use blue/black ink or a #2 pencil to complete the survey. Fill in circles completely.

Like this: ● Not like this: ✓ ✗ /

- Thank you for your time and input!

This study of the Expanded Learning Time (ELT) Initiative is authorized by the Massachusetts Department of Elementary and Secondary Education and is being conducted by Abt Associates Inc.

## Evaluation of the Expanded Learning Time Initiative

### TEACHER SURVEY INFORMATION SHEET

Abt Associates, a research firm in Cambridge, Massachusetts, is conducting an evaluation of the **Expanded Learning Time (ELT) Initiative** in collaboration with the Massachusetts Department of Elementary and Secondary Education. This study assesses schools' planning and implementation of ELT, as well as the initiative's impact on students, teachers, parents, schools, and other key stakeholders. The study's design calls for a matched comparison sample of schools which are similar to the ELT schools on characteristics such as Composite Performance Index, Adequate Yearly Progress, and accountability status, as well as student demographic characteristics. **Your school has been selected as a matched comparison school and has agreed to participate in the study.** Teacher surveys, as well as an interview with your principal, will enable the study team to learn how schools that do not have ELT are using time. Your input is highly valuable and we hope that you will complete the teacher survey.

Your participation in this study is completely voluntary. Refusing to participate will not involve any penalty or affect your employment in any way. It also will have no effect on your relationship with your school or with the Massachusetts Department of Elementary and Secondary Education.

It should take you approximately 15 minutes to complete the survey. The survey includes questions about the courses you teach, professional development and planning time, and other topics. Teachers who return a completed survey to the study liaison at their school will be given a \$5 gift card to Dunkin' Donuts or similar establishment as a token of our thanks for your participation.

Your responses will be kept confidential to the extent provided by law. Under no circumstances will anyone from your school have access to any information that can be attributable to you. All teachers, including classroom teachers, specialists, and other instructors, in the matched comparison schools are being asked to complete this survey for a total of approximately 1,000 teachers. The minimum number of teachers at any one school is 19 and the minimum number of teachers at any one grade is 4.

Once you have completed your survey, please **seal** your survey in the provided envelope and return to your school's evaluation liaison. Your liaison will then return the **sealed** envelopes to the evaluation team at Abt Associates. Completed surveys will be stored in a locked facility at Abt Associates Inc., accessible only to the study staff. These materials will be kept until 2013, at which time they will be destroyed.

Please contact Project Director, Megan Horst, of Abt Associates Inc., at (617) 349-2570, if you have any questions regarding this research. Questions about study subjects' rights should be addressed to Ms. Marianne Beauregard of Abt Associates. Her telephone number is (617) 349-2852. Calls to either number may incur regular long-distance toll charges.

If you agree to participate in the survey, please return your completed survey, **sealed** in the envelope provided, to your school's evaluation liaison. ***It is not necessary to sign or return this information sheet if you choose to complete the survey.*** We thank you for your cooperation and participation in this important study.

**Reminder: Please do not put your name on the survey.**

1. Name of your school: \_\_\_\_\_

2. Which grade(s) do you teach this school year? (Fill in ALL circles that apply.)

- PreK     K     1<sup>st</sup>     2<sup>nd</sup>     3<sup>rd</sup>     4<sup>th</sup>     5<sup>th</sup>  
 6<sup>th</sup>     7<sup>th</sup>     8<sup>th</sup>     9<sup>th</sup>     10<sup>th</sup>     11<sup>th</sup>     12<sup>th</sup>  
 Other: \_\_\_\_\_

3. What is your **primary** role at this school this school year? (Fill in ONE circle.)

- |   |   |
|---|---|
| <input type="radio"/> Classroom teacher         | <input type="radio"/> Tutor                     |
| <input type="radio"/> Literacy/math specialist  | <input type="radio"/> Enrichment instructor     |
| <input type="radio"/> Instructional coach       | <input type="radio"/> Paraprofessional          |
| <input type="radio"/> Special education teacher | <input type="radio"/> Specials/elective teacher |
| <input type="radio"/> ESL/ELL teacher           | <input type="radio"/> Other: _____              |
| <input type="radio"/> Substitute teacher        |   |

4. Which subject(s) do you teach this school year? (Fill in ALL circles that apply.)

I teach all or most subjects (e.g., elementary school 2<sup>nd</sup> grade classroom teacher).

I teach only specific subjects (e.g., middle school math teacher).

Please fill in the circles indicating which subjects you teach:

- |   |  |
|---|--|
| <input type="radio"/> English/Language Arts/Reading/Writing | <input type="radio"/> Physical Education |
| <input type="radio"/> Math                                  | <input type="radio"/> Art                |
| <input type="radio"/> Science                               | <input type="radio"/> Music              |
| <input type="radio"/> History/Social Studies                | <input type="radio"/> Other: _____       |
| <input type="radio"/> Foreign Language                      | <input type="radio"/> Other: _____       |

I teach one or more enrichment activities.

Other: Please specify: \_\_\_\_\_

5. Have you served on the instructional leadership team (or similar body) at your school this school year?

- Yes                       No

6. How many years in total have you been teaching (including this year)?  
**Fill in the first circle if this is your first year of teaching and then SKIP to Question 11.**

- 1<sup>st</sup> year of teaching
- 2–5 years
- 6–10 years
- 11–15 years
- 16–20 years
- More than 20 years

7. How many years have you been teaching at this school (including this year)?  
**Fill in the first circle if this is your first year at this school.**

- 1<sup>st</sup> year of teaching at this school
- 2–5 years
- 6–10 years
- 11–15 years
- 16–20 years
- More than 20 years

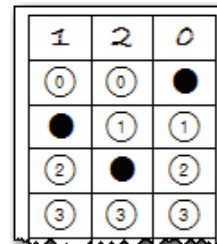
## Your Attitudes Toward Teaching

8. This item asks you to describe your *current* attitudes toward teaching using the statements below. To what extent do you agree or disagree with each statement? (Fill in ONE circle in each row.)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>N/A</b>
a. Overall, I am very satisfied with being a teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Overall, I am very satisfied with being a teacher at this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. If I could start over again, I would still become a teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I plan to stay in the teaching profession until I retire.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I think about transferring to another school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I think about transferring to another district.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. I am satisfied with my teaching salary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The stress and challenges of teaching aren't really worth it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Use of Time

9. Please report the **average amount of time** you spend each week on each of the activities described below. Please provide estimates for this school year as well as last school year. *If this is your first year teaching, please leave the column for last school year blank.* Enter the number of minutes in the top row and fill in circles as appropriate. For example, if you spend 60 minutes twice a week engaged in collaborative planning time, you would fill in 120 minutes.




**Work time beyond the school day** is defined as time teachers spend outside the school day to plan instruction, to grade assignments, etc. This includes work done on school grounds before or after the official school day for teachers as well as work done at home.

**Collaborative planning time** is defined as time set aside during the school day for grade level teachers, subject area teachers, or other groups of teachers to meet to discuss instructional practices, student work, etc.

**Individual planning time** is defined as time set aside during the school day for teachers to plan instruction. How teachers spend this time is up to each teacher. Teachers may choose to work independently or collaboratively.

		Amount of time you spend/spent (minutes per week)												
		This School Year						Last School Year						
a. Work time beyond the school day .....														
		0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6	6	6	6	6	6
		7	7	7	7	7	7	7	7	7	7	7	7	7
		8	8	8	8	8	8	8	8	8	8	8	8	8
		9	9	9	9	9	9	9	9	9	9	9	9	9
b. Collaborative planning time .....														
		0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6	6	6	6	6	6
		7	7	7	7	7	7	7	7	7	7	7	7	7
		8	8	8	8	8	8	8	8	8	8	8	8	8
		9	9	9	9	9	9	9	9	9	9	9	9	9
c. Individual planning time .....														
		0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6	6	6	6	6	6
		7	7	7	7	7	7	7	7	7	7	7	7	7
		8	8	8	8	8	8	8	8	8	8	8	8	8
		9	9	9	9	9	9	9	9	9	9	9	9	9

10. This school year, how often is time that is *scheduled* for your **collaborative planning time** replaced with an unrelated activity or responsibility (e.g., serving as a substitute teacher, attending a student disciplinary meeting)? (Fill in *ONE* circle.)

Almost never  Almost always

- ①                      ②                      ③                      ④                      ⑤

11. This school year, who *regularly* attends your **collaborative planning time**? (Fill in *ALL* circles that apply.)

- |  |  |
|--|--|
| <input type="radio"/> Classroom teachers within grade levels   | <input type="radio"/> Tutors                     |
| <input type="radio"/> Classroom teachers across grade levels   | <input type="radio"/> Special education teachers |
| <input type="radio"/> Classroom teachers within subject areas  | <input type="radio"/> ELL teachers               |
| <input type="radio"/> Classrooms teachers across subject areas | <input type="radio"/> Coaches or specialists     |
| <input type="radio"/> Partners                                 | <input type="radio"/> Principal                  |
|  | <input type="radio"/> Other: _____               |

12. This school year, what are typical activities that occur during this **collaborative planning time**? (Fill in *ALL* circles that apply.)

- |   |   |
|---|---|
| <input type="radio"/> Plan lessons and instruction            | <input type="radio"/> Discuss behavior management strategies              |
| <input type="radio"/> Receive coaching or mentoring           | <input type="radio"/> Coordinate instruction with special education staff |
| <input type="radio"/> Review student work                     | <input type="radio"/> Coordinate instruction with ELL staff               |
| <input type="radio"/> Interpret assessment results            | <input type="radio"/> Administrative functions                            |
| <input type="radio"/> Use assessment data to plan instruction |   |
| <input type="radio"/> Other: _____                            |   |

13. This school year, how often is time that is *scheduled* for your **individual planning time** replaced with an unrelated activity or responsibility (e.g., serving as a substitute teacher, attending a student disciplinary meeting)? (Fill in *ONE* circle.)

Almost never  Almost always

- ①                      ②                      ③                      ④                      ⑤



## Professional Development

**Professional Development** is defined as any activity in which a teacher is provided training about specific curriculum or programs, subject content material, or teaching strategies to use during instruction. Professional development includes school-based workshops, meeting with coaches, conferences, off-site trainings offered by the district, state, or other provider, etc.

14. This school year (2008–09), did you participate in any professional development activities?

- Yes                       No → **Skip to Question 15**

14a. If YES, this school year (2008–09), how many hours **in total** have you spent on professional development activities?

- Fewer than 10 hours  
 10–25 hours  
 26–50 hours  
 51–75 hours  
 76–100 hours  
 More than 100 hours

15. This school year (2008–09), have you been able to attend all professional development opportunities you wanted?

- Yes → **Skip to Question 16**                       No

15a. If NO, Please indicate the reasons below. (Fill in ALL circles that apply.)

- The professional development offering conflicted with my school’s school day.  
 The professional development offering conflicted with family or personal commitments.  
 The professional development offering was held off-site.  
 No professional development was offered at my school.  
 No professional development was offered in my school district.  
 No release time and/or substitutes were provided.  
 I could not afford the cost of the professional development offering.  
 I was too exhausted to attend.  
 There were funding or budget constraints.  
 The topics offered were not what I needed and/or was interested in.  
 Other reason: \_\_\_\_\_

## Your School and District

16. This item asks you to describe your school and district this school year using the statements below. To what extent do you agree or disagree with each statement? (Fill in ONE circle in each row.)

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a. Sufficient time during the school day is allotted for core subject area instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Sufficient time during the school day is allotted for collaborative teacher planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Sufficient time during the school day is allotted for individual teacher planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Teachers are involved in making important decisions for our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Teachers share and discuss instructional practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Teachers are given the support they need to teach children with special needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Teachers and students spend more instructional time together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The principal is interested in the professional development of teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. The principal is an effective manager who makes the school run smoothly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. The principal communicates a clear vision for our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. The principal is an instructional leader in our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Parents play an active role in the functioning of our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Students take their school work seriously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Students treat each other with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Students treat teachers with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. The district leadership communicates a clear vision for our districts' schools.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. The district is responsive to school and teacher concerns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. The district provides timely guidance on instructional practice, curriculum, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. District leadership effectively manages our schools.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. The district is interested in the professional development of teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**THANK YOU FOR COMPLETING THIS SURVEY!**

Please seal your survey in the envelope provided and return to your school's evaluation liaison.