

**In the Aftermath of Question 2:  
Students with Limited English Proficiency in Massachusetts**

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## Executive Summary

In November 2002, Massachusetts voters approved Question 2, a ballot initiative to replace transitional bilingual education (TBE) with sheltered English immersion (SEI)—an instructional model that teaches students with limited English proficiency all academic content in English. The mandate became fully effective in the fall of academic year 2003-04. Although its implementation has varied somewhat across the state, the majority of limited English-proficient students (LEP) in Massachusetts are now enrolled in SEI programs. Still, to date there has been no comprehensive statewide assessment of the effects of this policy change on students' engagement outcomes and academic performance.

This report seeks to fill a part of this knowledge gap. Its primary research objective is to identify how many students in the state are assessed as LEP and are thus subject to such policy changes, who they are, and how they have fared at school relative to their English-proficient classmates. To the extent that data availability allows, the report also seeks to evaluate how Question 2 has influenced LEP students' school engagement and academic

outcomes, by comparing time trends for LEP and English-proficient students for several years before and after Question 2. These questions are explored for Massachusetts as well as for twenty-two school districts with large enrollments of LEP students.

At the same time, data constraints as well as the varied implementation of the previous TBE mandate and the new law make it difficult to attribute unambiguously any differences in outcomes to the particular teaching model in use. For example, school engagement and academic achievement data are not disaggregated by the type of English language program in which LEP students are enrolled. Thus, this report does not attempt to determine the superiority of one English language instructional model over the other, or to disentangle the independent effects of Question 2 from those of other factors that influence student outcomes, such as socioeconomic background or the 1993 Education Reform Act.

The key findings of the report are summarized below.

### **Key Findings**

#### *Enrollment and Program Placement*

- ❖ Over the past decade, the enrollment of both non-native English speakers and LEP students has grown substantially. During academic year 2009, more than 147,000 students in Massachusetts spoke English as a second language—up by 20 percent from a decade earlier. Of these, 57,000 lacked English proficiency—over a quarter more than in 1999.
- ❖ The number of English-proficient students has remained steady, and as a result, the relative importance of non-native English speakers and of LEP students has also increased. The share of enrollment comprised by non-native speakers grew from 12.8 percent in 1999 to 15.4 percent a decade later. Over the same period, the percentage of students with limited English proficiency rose from 4.7 percent to 5.9 percent.
- ❖ The relative shares of LEP students and of non-native speakers vary widely across the selected school districts. The share of non-native English speakers is the highest in Chelsea, at 84 percent, and the lowest in Leominster, at 18 percent. In Lowell, one in three students has limited English proficiency; in New Bedford, their share is only 4.4 percent.
- ❖ Five years after the passage of Question 2, the vast majority of LEP students in the state were enrolled in sheltered English immersion programs, though program placement varies by school district. In academic year 2008, 81.1 percent of the state's LEP students attended sheltered English classrooms. Seventy percent of all school districts in the state had 90 percent or more of their LEP students in SEI programs. Five percent of all LEP students

were enrolled in either a two-way bilingual program or another form of bilingual education. One in ten opted out of English language services altogether.

- ❖ LEP students are disproportionately enrolled in elementary school. During academic year 2008, two thirds of the state's LEP students were enrolled in kindergarten through fifth grade. Sixteen percent attended middle school; the remaining 18 percent were high school students. In contrast, 46 percent of English-proficient students were in elementary school, a quarter were middle school students, and nearly one third attended high school.

### Demographic Characteristics

- ❖ Both students with limited English proficiency and English-proficient students are slightly more likely to be male than female at the state level and in most school districts.
- ❖ LEP students are much more racially and ethnically diverse than their English-speaking peers in the Commonwealth. They are more likely to be Hispanic or Asian and much less likely to be white. More than half of LEP students are Hispanic, and another 18 percent are Asian. Non-Hispanic whites account for only 12 percent of statewide LEP enrollment.
- ❖ The racial and ethnic breakdown of LEP students is far from uniform across districts, however—even for districts in geographical proximity to each other. Nearly all LEP students in Holyoke and Lawrence are Hispanic, compared with 10 percent or less in Quincy and Brookline. Quincy's largest nonwhite group is Asian students (86 percent), but they comprise only one percent of LEP students in Chelsea.
- ❖ The most common native language of students with limited English proficiency is Spanish, spoken by more than half. A distant second is Portuguese, native to eight percent of LEP students; another four percent are native speakers of Khmer. Across school districts, the most common native languages reflect both the ethnic makeup of their LEP students and immigrant settlement patterns.

- ❖ More than three quarters of LEP students in Massachusetts are low-income, a share that in several districts is far higher. LEP students have significantly higher low-income rates than English-proficient students—for the state as a whole and for all school districts except Lawrence. In Massachusetts, LEP students are nearly three times as likely as English-proficient pupils to be low-income. However, as the districts with the largest LEP enrollments tend to be poorer than the state, the gaps between the low-income rates of their LEP students and English-proficient students are less striking than at the state level.

### Student Engagement

- ❖ Overall, LEP students have fared worse than their English-proficient peers in terms of school engagement. Between 2006 and 2008—the only three years for which these data are available—LEP students attended school at rates similar to all students but were increasingly more likely to be suspended compared with English-proficient pupils. In 2006, LEP students' suspension rate was 16 percent higher than the rate of their peers; in 2008, it was more than a quarter higher.
- ❖ LEP students were also considerably more likely to repeat a grade and to drop out of high school. And while the grade retention gap between LEP and English-proficient students declined over time, the dropout gap increased noticeably. In 2003—the only year prior to Question 2 for which dropout rate data are available—high school students with limited English skills dropped out at a rate nearly twice as high as their English-speaking classmates. By 2006, their rate had risen steadily and was more than three times as high. The gap narrowed slightly towards the end of the period, but LEP students remained significantly more likely to drop out of high school.

### Academic Achievement

- ❖ The review of academic performance is based on results from the MCAS tests in Grades 4, 7, 8, and 10. It evaluates both the shares of students performing at or above the Needs Improvement level and the shares of students

gaining proficiency in each subject. It discusses elementary, middle, and high school students separately, and covers the period between academic years 2001 and 2008—three years before the implementation of Question 2, and five years after.

- ❖ The analysis reveals persistent gaps in the academic performance of students with limited English skills relative to their English-proficient classmates. In all years, all grade levels, and all subjects, the shares of LEP students scoring at or above Needs Improvement, as well as their proficiency rates, were significantly below those of English-proficient students.
- ❖ While the persistence of these gaps is worrying, the question more central to this analysis is how the gaps changed over time—particularly around academic year 2003-04 when Question 2 was enacted. The findings of this examination are mixed. They reveal significant gains for certain grade levels and subjects, but no change or even losses for others.
  - ◆ LEP students in elementary school demonstrated solid gains in Grade 4 mathematics relative to their English-proficient classmates, though the growth of their proficiency rates and their shares scoring at Needs Improvement or higher leveled off in recent years. Improvement in Grade 4 English Language Arts was very limited, however, and the ELA proficiency gap actually widened slightly.
  - ◆ In middle school, the fraction of LEP students performing at or above Needs Improvement and the fraction performing at or above Proficient were both on the rise until 2004, when their growth suddenly stopped and reversed. English-proficient students, in contrast, continued to improve. As a result, the gaps between LEP and EP students' performance narrowed at first but subsequently grew again, in most cases finishing the period wider than they were in 2001.
  - ◆ The ability of LEP high school students to score at Needs Improvement or higher in

the Grade 10 math and ELA exams improved considerably. The share of LEP students performing at this level grew much faster than that of English-proficient students, resulting in substantial narrowing of the gap between them. The relative capacity of LEP students to attain proficiency—particularly in math—barely changed, however, as the proficiency rates of the two groups grew at similar paces.

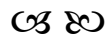
#### Student Outcomes and Program Placement

- ❖ Aligning LEP students' school engagement and academic achievement with their districts' English support programs reveals little connection. LEP students in districts with very similar program breakdowns often have very different student outcomes. For example, although nearly all LEP students in Lowell and Holyoke attended SEI programs in 2008, those in Holyoke were significantly more likely to be suspended, to repeat a grade, and to drop out of high school, compared with their peers in Lowell. And while MCAS results improved substantially and remained high for LEP students in Lowell, in Holyoke they did not.
- ❖ Conversely, districts with similar student outcomes frequently have very dissimilar English language learner programs. The academic performance of LEP students improved significantly in Lowell, Quincy, and Framingham, while their suspension rates, grade retention rates, and dropout rates remained lower than the state average. Yet, these districts take different approaches to educating LEP students. Quincy and Lowell enroll virtually all LEP students in sheltered English immersion. In Framingham, more than half attend bilingual programs instead, and only 42 percent are in SEI.
- ❖ The lack of correlation between a district's program structure and its student performance adds to the difficulty of determining how well the transition from TBE to sheltered English immersion has served LEP students. Even if it existed, such correlation would hardly speak of the superiority of either model, given the multitude of other factors that influence student performance and the variability in

district- and school-level implementation of both the original TBE law and the Question 2 mandate. To identify best practices in educating LEP students, it is probably best to pursue this inquiry at the school or even the classroom level.

- ❖ Overall, there is likely no one-size-fits-all approach that serves all LEP students equally well. What works in one district, school, or classroom may not necessarily be effective in

another. Instead, as the Rennie Center (2007) finds, what model schools frequently have in common is flexibility in program design, availability of different types of programs to match varying student proficiency levels, highly-skilled and dedicated teachers, a sustained commitment to the education and all-around support of LEP students and their families, and a keen attentiveness to their learning needs.<sup>1</sup>



## Terms and Definitions

Students with Limited English Proficiency (LEP): The Massachusetts Department of Elementary and Secondary Education defines LEP students as those who do not speak English or whose native language is not English, and who are unable to perform ordinary classroom work in English. The term “LEP student,” used throughout this report, is frequently interchangeable with the terms “English language learner” and “English learner.”

Non-native English Speakers: Students who speak a language other than English as their native language. Only non-native English speakers whose English proficiency is assessed as limited are identified as LEP students.

MCAS Proficiency Rate: The combined shares of students whose MCAS scores place them in the Advanced or Proficient performance levels.

MCAS Proficiency Ratio: The ratio of LEP students’ MCAS proficiency rate to the proficiency rate of English-proficient students in the same grade and subject.

MCAS “at or above NI” Ratio: The ratio of the share of LEP students scoring at or above Needs Improvement on an MCAS exam to the corresponding share of their English-proficient peers in the same grade and subject.

Attendance Rate: The share of school days during an academic year in which the student is present at school.

Suspension Rate: The share of enrolled students who receive one or more out-of-school suspensions during a given academic year.

Grade Retention Rate: The share of students required to repeat the grade in which they were enrolled during the previous academic year.

Dropout Rate (annual): The share of students who drop out of school in any given year. The Massachusetts Department of Elementary and Secondary Education reports annual dropout rates for high school students only.

Sheltered English Immersion (SEI): SEI programs impart all academic content in English but in ways designed to be comprehensible to LEP students and to permit their active engagement at their current level of English

proficiency. Lesson plans for SEI classes usually include separate content and English language learning objectives. The use of a student’s native language is typically permitted for clarification purposes only—to answer questions or clarify tasks, for example. All textbooks and instructional materials are in English. This model is also known as Structured English Immersion.

Transitional Bilingual Education (TBE): TBE programs offer LEP students content instruction in English and in their native language, often supplemented by additional instruction of the English language, the native language, and the history and culture of both the United States and the students’ home country—as was the case in Massachusetts prior to Question 2. In most TBE programs, the portion of academic content taught in English increases as students’ English skills improve.

Two-Way Bilingual Programs: Two-way bilingual programs enroll both native English speakers and LEP students, typically in similar proportions. A formal objective of these programs is to develop students’ proficiency in both languages. Thus, content and language instruction occurs in both English and the second language. The new state law exempts enrollment in such programs from the waiver requirement.

ESL Pullout Instruction: An explicit and direct instruction of the English language—including reading, writing, oral, and listening comprehension skills—typically taught by licensed ESL teachers. This program is often called ESL pullout because students receive a number of hours of ESL training per day in addition to but separate from content classroom instruction. While districts may provide ESL classes *in addition to* SEI instruction, the sole use of pullout ESL instruction does not meet the requirements of the new state law.

Literacy Programs: These programs typically target non-native students who have had no previous formal education in their own language, or whose formal education has been interrupted. Instructional approaches in literacy programs vary, but the programs themselves are by and large separate from mainstream classroom programs. They offer intensive instruction in ESL, grade-appropriate content instruction, and frequently individual assistance from tutors as well.

## I. Introduction

In November 2002, Massachusetts voters approved Question 2, a ballot initiative to replace transitional bilingual education (TBE) with an instructional model that teaches students with limited English proficiency all academic content in English. As a result, Chapter 386 of the Acts of 2002 mandated that sheltered English immersion (SEI)—rather than transitional bilingual education—become the primary method of English language instruction to LEP students. The legislative mandate became fully effective in the fall of academic year 2003-04, though its implementation has varied somewhat across the state. Through extensive use of parental waivers, some districts have continued their pre-existing TBE programs with minor modifications. Still, the majority have enrolled all or most of their limited English-proficient students (LEP) in SEI programs.

Despite the fact that SEI became the default instructional model six years ago, there has been no statewide assessment of the effects of the policy change on students' engagement outcomes and academic performance. This report seeks to fill a part of this knowledge gap. Its primary research objective is to identify how many students in the state are assessed as LEP and are thus subject to such policy changes, who they are, and how they have fared at school relative to their English-proficient classmates. To the extent that data availability allows, the report also seeks to evaluate how Question 2 has influenced LEP students' school engagement and academic outcomes, by comparing time trends for LEP and English-proficient students for several years before and after Question 2. The primary data source used in this research is the Massachusetts Department of Elementary and Secondary Education.

At the same time, the varied implementation of both the previous TBE mandate and the new law as well as the nature of the available data make it difficult to attribute unambiguously any differences in outcomes to the particular instructional model in use. For example, school engagement and academic achievement data are not disaggregated by the type of English language program in which LEP students are enrolled. Thus, while the report sheds light on their performance relative to English-

proficient students, it does not determine the superiority of one teaching model over the other—though this remains an important, and largely unresolved, empirical question. Furthermore, the report does not attempt to disentangle the independent effects of Question 2 from those of other factors that also influence student performance, such as socioeconomic background or the 1993 Education Reform Act.

The report begins with an overview of the Commonwealth's bilingual education experience over the past three decades. The overview summarizes the state's experience with the TBE mandate established in 1971 and the 2002 ballot initiative that replaced it with Sheltered English Immersion; it then discusses the policy details of the new law and its current state of implementation across the state. Section III provides basic enrollment, program placement, and demographic information about the relevant student subgroups—students who are native speakers of other languages, students with limited English proficiency (LEP), and English-proficient students (EP)—in Massachusetts as a whole and in school districts with large enrollments of LEP students.

Sections IV, V, and VI present the main findings of the report's quantitative exploration of engagement and academic outcomes. Section IV focuses on school engagement at the state level: It compares LEP students and English-proficient students across a variety of indicators, such as attendance rates, out-of-school suspension rates, grade retention, and high school dropout rates. Section V analyzes absolute and relative trends in the two groups' academic performance, using results from the MCAS tests in Grades 4, 7, 8, and 10. The review focuses on the shares of students who perform at or above the Needs Improvement level, the shares who perform at or above the Proficient level, and ratios of LEP students' shares to English-proficient pupils' shares. Statewide trends in MCAS results are discussed separately at the elementary, middle, and high school levels. Section VI discusses district-level trends in school engagement and academic performance, focusing on school districts in which LEP student enrollment is large enough to discern reliable trends.

Finally, the quantitative analysis is supplemented by the case studies of two schools identified in a 2007 report by the Rennie Center—Brockton High School and Fuller Middle School—that have implemented innovative and effective approaches to educating their LEP students.<sup>2</sup> The case studies begin with short summaries of each school’s

English language program structure, as described in the much more detailed Rennie Center profiles. The summaries are followed by an analysis of the academic performance of the schools’ LEP and English-proficient students, using the same indicators as the state and district-level analyses presented in Sections V and VI.

## II. The Commonwealth’s Experience with Bilingual Education

### Bilingual Education in Massachusetts Prior to Question 2

In 1971, the Commonwealth passed Chapter 71A of the Massachusetts General Laws—the first state legislation in the nation to mandate bilingual education for students with limited English proficiency. While native language instruction was permitted and introduced by several districts prior to the new law, Chapter 71A required the implementation of full-time transitional bilingual education (TBE) in all school districts with 20 or more LEP students from the same language group. To facilitate implementation, the law provided districts with state funds to cover any new costs exceeding their average per-pupil expenditures.<sup>3</sup>

The newly mandated TBE programs were to offer content instruction in both English and the students’ native language, supplemented by additional instruction of the English language, the native language, and the history and culture of both the United States and the students’ home country.<sup>4</sup> Students were expected to remain in bilingual classrooms for three years and then transition into mainstream education. Subject to parental and district approval, however, they were allowed to remain in TBE longer. Meanwhile, to avoid segregating LEP students from their English proficient peers in mainstream classrooms, the law required joint participation in art, music, physical education, and extracurricular activities.<sup>5</sup>

In reality, school districts developed a variety of approaches to implementing the TBE mandate. Some districts instituted bilingual programs that relied extensively on students’ native languages (mostly Spanish); others grouped students from different language groups together in programs that used native languages only minimally and closely

resembled sheltered English immersion; still others placed their LEP students in mainstream classrooms and supplemented their education with ESL pullout classes. In fact, Rossell (2006) estimates that in academic year 2002-03—the last year in which the TBE law was in effect—only 23 percent of the state’s LEP students were attending true bilingual programs.<sup>6</sup>

Nonetheless, for over three decades, TBE was the primary model of teaching LEP students in Massachusetts. Yet, no comprehensive statewide evaluation was ever conducted to determine how well this instructional model served them. A 1994 report by Study Commission on Bilingual Education—the first official review of TBE in the Commonwealth—found that no “adequate and reliable data” even existed to enable such an investigation.<sup>7</sup> The academic achievement of LEP students was not officially tracked until the 1993 Education Reform Act mandated statewide uniform assessments of all students—including LEP students—starting with the first MCAS in 1998.<sup>8</sup>

The lack of a comprehensive assessment did not prevent opponents of TBE from expressing concerns about its effectiveness. As Tung et al. (2009) document, perceptions abounded that, among other things, bilingual students were not held to the same high standards as their English proficient peers, were too isolated from them, and remained in bilingual classrooms for much too long. Others complained about the lack of uniform curriculums and proper supervision of TBE programs as well as about the professional qualifications and English proficiency of bilingual education teachers.<sup>9</sup> Such concerns prompted legislative challenges to the TBE statute on an almost annual basis, striving to replace it with an

English-only mandate.<sup>10</sup> These challenges proved unsuccessful until Question 2 was placed on the ballot in the fall of 2002.

### **Question 2: The Ballot Initiative**

In November 2002, an overwhelming majority of Massachusetts voters (68 percent) endorsed Question 2—a ballot initiative seeking to replace transitional bilingual education with an instructional model that teaches LEP students all academic content in English. Researchers have attributed the lopsided electoral outcome to a number of reasons, ranging from pragmatic concerns to ideological persuasions.<sup>11</sup>

An analysis by Capetillo-Ponce (2004) of six focus groups of voters reveals that many were motivated by practical concerns that, in their view, hindered the effectiveness of current bilingual programs—such as the need for more funding, the lack of bilingual teachers for many languages, and the flawed procedures for assessing and placing non-native students in programs that best suit their English skills. Others cited ideologically driven motivations, including a belief in the primacy of the English language and a persuasion that new immigrants should do what generations of immigrants have done before them—“pull themselves up by their bootstraps” and learn English.<sup>12</sup> Still others favored bilingual education in theory but voted to eliminate it because they considered it poorly implemented (and reforming it was not an option at the ballot).<sup>13</sup>

Finally, as Tung et al. (2009) note, the lack of evidence-based assessments of the quality and effectiveness of the state’s bilingual programs may have also played a role.<sup>14</sup>

### **Question 2: Policy Details**

Following the passage of Question 2, the state enacted Chapter 386 of the Acts of 2002, which amended Chapter 71A in its entirety. (In July 2003, the Legislature added several amendments that further clarified the new legislation.) In its essence, Chapter 386, also known as Question 2, mandates that sheltered English immersion (SEI) replace transitional bilingual education as the primary method of English language instruction for LEP students in the state.

The amended law requires that school districts determine on an annual basis their total enrollment of LEP students as well as their grade level, primary language, and the type of English instruction program in which they are placed. Unless LEP students are granted a waiver or choose to enroll in two-way bilingual programs (which do not require waivers), they are required to learn English in an SEI program for a period “not normally intended to exceed one school year.”<sup>15</sup> This language, however, does not impose a cap on how long an LEP student can remain in an SEI or a bilingual classroom. Such caps violate Title VI of the Civil Rights Acts, as the Supreme Court ruled in *Lau v. Nichols* (1974). Moreover, research has consistently shown that it takes students between four and seven years to learn English well enough to fully understand academic material.<sup>16</sup> Thus, while the new law aims to reduce the number of years LEP students spend in English instruction programs, it requires districts to provide these students with language support services until they are proficient enough to transition to mainstream classroom education.

According to guidelines from the Massachusetts Department of Elementary and Secondary Education, SEI programs should have two components: sheltered content instruction and English as a Second Language (ESL) training.<sup>17</sup> Sheltered content classrooms provide nearly all academic instruction in English but in ways designed to permit active participation by LEP students. The use of a student’s native language is permitted for clarification purposes, and all textbooks and supporting materials are in English. ESL instruction is an explicit and direct instruction of English language skills, including reading, writing, oral, and listening comprehension.<sup>18</sup> While ESL classes may supplement sheltered instruction, their provision alone does not meet the requirements of the new law.<sup>19</sup>

Students granted a waiver—for which a parent must apply annually and in person—may enroll in alternative bilingual programs. Schools in which 20 or more students in the same grade level receive a waiver must offer either a bilingual program or a program that offers English language support using another generally recognized educational methodology.<sup>20</sup> If fewer than 20 students obtain waivers, the school may choose to offer an

alternative program or to permit the students to transfer to another school within the district that offers such a program. Parents may also choose to “opt out” of SEI or any English support program altogether, in which case the student is placed in a mainstream classroom.<sup>21</sup>

Finally, Chapter 386 requires that each year schools assess LEP students’ English proficiency and mastery of academic content, using nationally normed tests selected by the Board of Education. The Massachusetts English Proficiency Assessment (MEPA) is used to test English proficiency. The test consists of two parts: MELA-O, which assesses English listening and speaking skills, and MEPA-R/W, which evaluates proficiency in reading and writing in English. Based on their scores, students are assigned one of four proficiency levels—beginning, early intermediate, intermediate, and transitioning. MEPA results are also used to determine whether schools and districts are meeting their state-established English proficiency objectives for LEP students.<sup>22</sup>

Academic content testing is conducted through the Massachusetts Comprehensive Assessment System (MCAS). The MCAS was created by the 1993 Educational Reform Act to assess the progress of all students toward meeting learning expectations.<sup>23</sup> As of 2008, MCAS tests were administered in 3<sup>rd</sup> grade for Reading and Math, 4<sup>th</sup> grade through 8<sup>th</sup> grade for English Language Arts (ELA) and Math, 5<sup>th</sup> and 8<sup>th</sup> grade for Science, and 10<sup>th</sup> grade for ELA, Math, and Science. Based on the number of raw score points earned on each test, students’ MCAS results are rescaled into four performance levels: Advanced, Proficient, Needs Improvement, and Warning. In Grade 10, the lowest performance level is Failing. Starting with the class of 2003, tenth-graders are required to score at or above Needs Improvement on the 10<sup>th</sup> grade ELA and Math tests in order to graduate from high school, making these two tests high-stakes.<sup>i</sup> Those who score at the Failing level need to fulfill an

Educational Proficiency Plan to graduate.<sup>ii</sup>

LEP students must take the MCAS exams regardless of the length of time they have been in the United States or the type of English support program in which they are enrolled. Only LEP students currently in their *first* year of school in the United States are exempt.<sup>24</sup> Moreover, the results for all but first-year LEP students are included in school and district summary MCAS results, which form the basis for determining the yearly progress that schools and districts are making toward meeting the federal learning objectives laid out by the No Child Left Behind Law. As a result, districts are now required to teach LEP students to the same high-quality standards and curriculum frameworks as English-proficient students, and to provide them with the opportunity to reach the same long-term educational goals.<sup>25</sup>

### **Question 2: Implementation**

The amended Chapter 71A became effective in the fall of academic year 2003-04.<sup>iii</sup> Five years later, in 2008, 81 percent of the state’s LEP students were enrolled in SEI classrooms. This number masks significant variation across the Commonwealth, as school districts—and often schools within the same district—have chosen a variety of implementation approaches. In several districts with large LEP enrollments, such as Holyoke and Chelsea, all LEP students attend SEI programs. By contrast, just over half of Boston’s LEP students are enrolled in SEI, 7 percent attend either a two-way program or an alternative form of bilingual education, and more than 42 percent have opted out in favor of mainstream classroom education. Still other districts boast very diverse English support services: In Framingham, for example, 42 percent of LEP students are enrolled in SEI, 18 percent are in two-way bilingual programs, and another third attend other forms of bilingual education, such as TBE or multilingual programs.

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<sup>i</sup> Starting with the class of 2010, students are also required to pass one of the four high school MCAS Science and Technology/Engineering tests in order to graduate.

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<sup>ii</sup> Starting with the class of 2010, tenth-graders scoring at the Needs Improvement level also have to complete an Educational Proficiency Plan in order to graduate.

<sup>iii</sup> The exception was Section 7, which came into effect during academic year 2002-03. Section 7 mandates annual testing of LEP students’ English proficiency and academic content learning.

Such disparities in implementation are hardly surprising, given how widely the districts' preexisting programs had varied prior to Question 2. In addition, neither the legislative amendments nor the subsequent interpretations and guidelines from the Massachusetts Department of Education have fully bridged the gap between the generality of the new law and the specificity needed to translate it into concrete classroom practices.<sup>26</sup> Finally, as deJong et al. (2005) note, local factors, such as resources, teacher training, infrastructure capacity, and commitment to both local values and the new policy have also contributed to the varied implementation of Question 2.<sup>27</sup>

DeJong et al. (2005) illustrate how three unidentified school districts have adapted their preexisting program structures to the new mandate, implementing it in very different ways. At the elementary level, one district transformed its Cape Verdean Creole and Spanish TBE programs and its pullout ESL classes into SEI programs, while preserving its Spanish two-way bilingual program intact. It also made the choice to maintain its large high school TBE program using parental waivers, and to convert only the third year of that program into an SEI strand.<sup>28</sup>

Another district had a preexisting English support structure at the secondary school level that sequenced students from bilingual education through ESL content classes to mainstream classrooms as their English proficiency progressed. After Question 2, the district chose to maintain its bilingual classes and replace ESL with an SEI program. Its approach at the elementary level was similar. To facilitate the continuation of its bilingual programs, the district developed a formal waiver process that involved teachers, principals, ELL officials, and parents.<sup>29</sup>

A third district took yet another approach: It converted all TBE programs into SEI classrooms and continued its elementary school two-way bilingual program. In that district, the conversion to SEI did not entail much in the way of programmatic changes, especially at the high school level. Instruction was already conducted primarily in English, students' native languages were used mostly for facilitation and clarification, and all printed materials were in English.<sup>30</sup>

Finally, Tung et al. (2009) note that some districts have enrolled virtually all of their LEP students in SEI programs either by withholding information about the waiver provisions or by implementing alternative processes that channel many LEP students needing language support into mainstream education instead—an approach that has been largely adopted by the Boston Public Schools.<sup>31</sup> The 2009 report, published by the Gaston Institute at UMass Boston, provides an in-depth investigation into the implementation and the impact of Question 2 in the largest school district of the state.

Owing in large part to parents' struggle for accountability, Boston had developed a rather comprehensive bilingual education structure prior to Question 2. It had launched TBE programs in 80 schools and in nine languages, developed high-quality two-way bilingual programs, and implemented literacy programs for LEP students with interrupted formal education.<sup>32</sup> Despite these efforts, Boston's programs had been plagued by concerns similar to those voiced about TBE programs across the state: that they retain LEP students for far too long and isolate them from their peers, that they lack uniform curriculums and proper monitoring, and that bilingual teachers frequently lack the necessary professional qualifications or English skills.<sup>33</sup>

After the passage of Question 2—which Boston voters overwhelmingly opposed—the district followed guidelines from the Department of Elementary and Secondary Education in planning the implementation of the new law. Boston Public Schools planned for four types of English support programs: SEI, two-way bilingual, multilingual ESL, and the literacy strand. TBE programs would continue to be held at the same language-specific sites but would transform into SEI programs taught by the TBE teachers.<sup>34</sup> Overall, the district instituted SEI programs at 38 schools, kept its two-way bilingual programs intact, and designated several schools as English Language Learner Centers to offer TBE and literacy programs to LEP students with waivers.<sup>35</sup>

In practice, the Citizen Commission on Academic Success for Boston Children found serious gaps in student assessment, program design and assignment, and teacher training, as well as a lack of

transparency and accountability in how the district identified, placed, and evaluated LEP students. The Commission identified the perception of inadequate district leadership as the most serious problem in tackling the challenges presented by Question 2.<sup>36</sup> Indeed, Gaston Institute researchers found that, in the absence of strong district leadership, principals were given autonomy in transforming English support programs, resulting in substantial variation in the type and the quality of new programs and in schools' compliance with the planning framework issued by the district.<sup>37</sup>

As the Boston Public Schools lacked streamlined procedures for processing waivers, many schools did not provide parents with sufficient information about the waiver process or about alternative English support programs. In some cases, students granted a waiver were retained in SEI anyway.<sup>38</sup> In others, the district simply required parents to opt out of English support services altogether if they were unsatisfied with the programs to which their children were assigned.<sup>39</sup> Despite the fact that opting out places students in regular education without any further English support services, in 2008, 42 percent of Boston's LEP students had opted out of SEI.

In addition, Boston Public Schools struggled with under-identification of LEP students due to both mis-assessment of their English skills by the district and over-reporting by parents of English use in the home. Thus, many LEP students lacking English proficiency were moved to mainstream education along with those deemed proficient.<sup>40</sup> As a result, Tung et al. found that enrollment in Boston's English learner programs declined precipitously, as did the number of English support services available to LEP students. In contrast, the number of LEP students in Special Education increased.<sup>41</sup> As of October 2008, only 58 percent of Boston's LEP students were enrolled in programs that acknowledge and address their English language needs.

### Funding LEP Student Education

As part of the Education Reform Act of 1993, Massachusetts established a *foundation budget* formula to determine the minimum amount that each school district must spend to provide its students with an adequate education. The formula is used to determine minimum local funding levels and the state aid allotments needed to bring each district to its foundation amount. It includes higher rates for students with greater resource needs, such as those with low incomes or limited English proficiency, and is adjusted annually for inflation and enrollment changes.<sup>42</sup>

In the ten years between the enactment of the 1993 Education Reform Act and the passage of Question 2, the statewide ratio of annual bilingual to regular per-pupil expenditures remained fairly constant, with the former costing about a third more. In 2003, for example, the average bilingual student in the Commonwealth cost \$8,936, compared with \$6,779 per regular student.<sup>43</sup> In fiscal year 2007, revisions to the funding formula raised spending for LEP students and low-income pupils.<sup>44</sup> However, as Question 2 further increased the fragmentation of English language learner programs across the state, it made it too difficult for districts to disaggregate spending for LEP students. As a result, per-pupil expenditures for this group have not been tracked since 2003.

Chapter 386, which enacted Question 2 into law, did not provide for additional funding to assist with the implementation of the new law. The Department of Elementary and Secondary Education (MDESE)—charged with interpreting key provisions and providing implementation guidance to districts—has relied on a combination of federal funds and subsequent state budget appropriation to accomplish key tasks, such as training teachers of LEP students. Overall, between fiscal years 2005 and 2009, MDESE received a total of \$3.3 million in state budget appropriations to fund professional development for teachers of LEP Students. Appropriations were highest in 2005 and 2006—at \$1,000,000 each year—but have declined by more than half in recent fiscal years due to the state's budget crisis.<sup>45</sup>

### III. Enrollment Trends and Demographic Characteristics

This section explores recent trends in the enrollment of non-native English speakers, students with limited English proficiency, and English-proficient students over the past decade. It then discusses the current breakdown of LEP students by grade level and by type of English language learner program in which they are enrolled (SEI, two-way bilingual, other bilingual, or none at all). Finally, it compares LEP students to their English-proficient peers along a series of demographic indicators, including gender, race, poverty status, and native language.

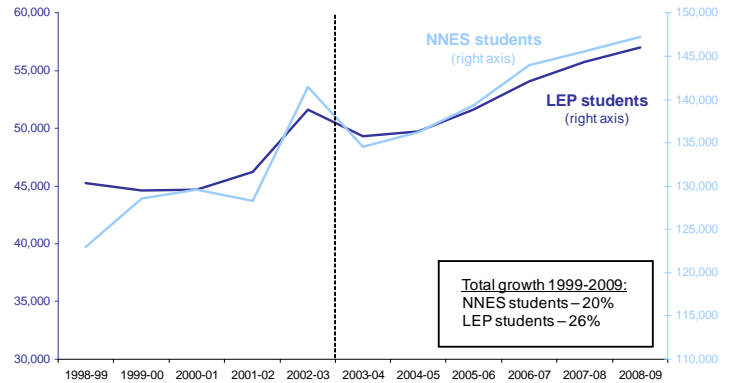
The section focuses on Massachusetts as a whole and on school districts with large enrollments of LEP students. To ensure large enough group sizes, the district-level analysis is restricted to districts that enrolled 500 or more LEP students during academic year 2008-09. This criterion narrowed the selection to 22 districts, which together enrolled 77 percent of the state's LEP students and 68 percent of all students whose native language is not English (see Table 1).

#### Trends in Enrollment and Program Placement

Over the past several decades, Massachusetts' foreign-born population has grown dramatically. In 2007, 914,000 state residents were foreign born—up by 60 percent since 1990 and by nearly a fifth since the turn of this century.<sup>46</sup> The number of students whose native language is not English has grown in parallel. During academic year 2008-09, 147,202 students in Massachusetts public school spoke English as a second language, up by 20 percent from a decade earlier (see Figure 1).

Growth in the enrollment of students with limited English skills has been even more pronounced. In academic year 1998-99, 45,287 students lacked English proficiency. By 2008-09, their number had risen by more than a quarter to 57,002. Meanwhile, the percentage of non-native speaking students who have limited English proficiency remained fairly stable, rising from 37 percent to 39 percent.

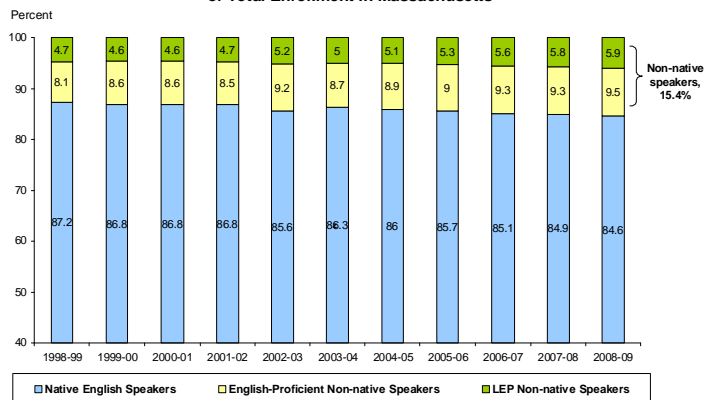
**Figure 1. Non-Native English Speakers (NNEs) and Students with Limited English Proficiency (LEP) in Massachusetts Public Schools**



Source: Massachusetts Department of Elementary and Secondary Education

Since total enrollment in the Commonwealth's public schools remained virtually unchanged, the relative importance of non-native speakers and of LEP students also increased. The share of enrollment comprised by non-native English speakers grew from 12.8 percent in 1998-99 to 15.4 percent a decade later, while the percentage of students with limited English proficiency rose from 4.7 percent to 5.9 percent (see Figure 2).

**Figure 2. Native English Speakers, English-Proficient Non-Native Speakers, and Non-Native Speakers with Limited English Proficiency (LEP) as a Share of Total Enrollment in Massachusetts**

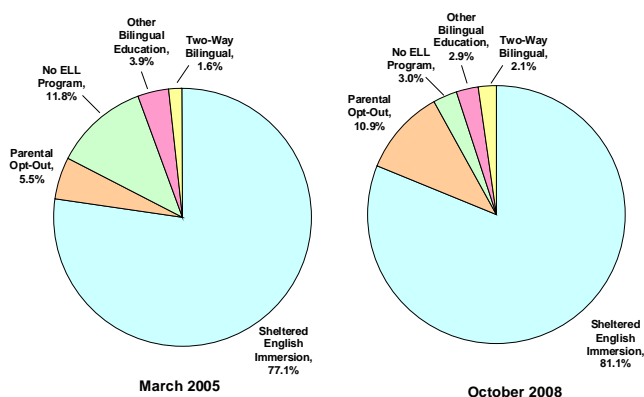


Source: Massachusetts Department of Elementary and Secondary Education

The school districts selected for this analysis enroll, on average, significantly higher shares of non-native English speakers and of LEP students than the state does. Non-native speakers comprise 39 percent of total enrollment in these districts but just over 15 percent of total state enrollment. Similarly, the district average share of LEP student enrollment is 15 percent, compared with 6 percent for Massachusetts as a whole. Only Newton and New Bedford have relative shares of LEP students lower than the state average.

The relative importance of LEP students and of non-native speakers varies widely across the selected districts, however. The share of non-native English speakers is the highest in Chelsea, at 84 percent, and the lowest in Leominster, at 18 percent (see Table 1). In Lowell, one in three students has limited English proficiency; in New Bedford, however, LEP students account for only 4.4 of total enrollment.

Figure 3. Students with Limited English Proficiency by type of ELL program



Source: Massachusetts Department of Elementary and Secondary Education

The share of *non-native speakers* who lack English proficiency varies substantially across districts as well, ranging from 20 percent in New Bedford and Chelsea to 70 percent in Lowell. As a result, in 2009, the districts with the highest shares of non-native speakers did not necessarily have very high shares of LEP students. For instance, over 80 percent of all students in Chelsea and Lawrence were non-native speakers, and yet LEP students comprised only 20 percent and 28 percent, respectively, of total enrollment in these two districts.

Moreover, as the fraction of non-native speakers identified as LEP grew for some districts but declined for others, over the past decade districts have experienced very different, and often conflicting, trends in the enrollment of non-native speakers and of LEP students. For example, in Chelsea, Lawrence, and New Bedford, the share of non-native speakers identified as LEP has been on the decline. As a result, enrollment of non-native speakers in these districts either rose or remained unchanged, and yet their LEP students declined in number by up to a fifth (see Table 2).

Conversely, in districts like Lowell, Quincy, and Worcester, the share of non-native speakers identified as LEP nearly doubled between 1999 and 2009. As a result, in Quincy and Worcester, the number of LEP students grew much more than the number of students who are non-native speakers. Notably, even as Lowell's enrollment of LEP students increased by more than two thirds, its total number of non-native English speakers declined by over a quarter.

Five years after the passage of Question 2, the vast majority of LEP students in the state were enrolled in sheltered English immersion programs, though program placement varied somewhat by school district (see Table 3). In October 2008, 81.1 percent of the state's LEP students were enrolled in sheltered English classrooms—up from 77.1 percent three years earlier (see Figure 3). Seventy percent of all school districts in the state had 90 percent or more of their LEP students enrolled in sheltered English programs; over half of all districts had *all* of their LEP students in SEI.

Meanwhile, between 2005 and 2008, the percentage of students in alternative bilingual programs declined from 5.6 percent to 5 percent, though the share choosing two-way bilingual programs actually rose from 1.6 percent to 2.1 percent. Among the 22 districts with large LEP enrollments, the percentage of LEP students in bilingual programs was the highest in Framingham (53 percent), followed by Somerville (23 percent), and Brockton (18 percent). Finally, the share of students who opted out of English support services altogether nearly doubled from 5.5 percent to 10.9 percent. In Boston and Everett, the share of students opting out was by far the highest in the state, at 42 percent.

**Table 1. Non-Native English Speakers (NNES) and Students with Limited English Proficiency**  
 Select School Districts, AY2008-09

	NNES students			LEP students			Percent of NNES students who are LEP
	Number	Percent of enrollment	Percent of state NNES enrollment	Number	Percent of enrollment	Percent of state LEP enrollment	
Massachusetts	147,202	15.4	100	57,002	5.9	100	38.7
District Total	100,476	38.8	68.3	43,777	14.7	76.8	39.1
Boston	21,303	38.1	14.5	10,579	18.9	18.6	49.7
Brockton	4,861	31.7	3.3	2,536	16.6	4.4	52.2
Brookline	1,793	28.4	1.2	539	8.5	0.9	30.1
Chelsea	4,679	83.5	3.2	951	17	1.7	20.3
Everett	2,429	43.3	1.7	509	9.1	0.9	21.0
Fall River	2,638	26.4	1.8	705	7.1	1.2	26.7
Fitchburg	1,514	29.4	1.0	567	11	1.0	37.5
Framingham	2,779	34.1	1.9	1,170	14.3	2.1	42.1
Holyoke	3,072	51	2.1	1,460	24.2	2.6	47.5
Lawrence	9,867	80.7	6.7	2,791	22.8	4.9	28.3
Leominster	1,133	18.2	0.8	598	9.6	1.0	52.8
Lowell	6,044	45.1	4.1	4,227	31.5	7.4	69.9
Lynn	6,571	49.5	4.5	3,419	25.8	6.0	52.0
Malden	2,508	39.1	1.7	655	10.2	1.1	26.1
Marlborough	1,197	26.2	0.8	520	11.4	0.9	43.4
New Bedford	2,789	22.1	1.9	550	4.4	1.0	19.7
Newton	2,215	18.9	1.5	654	5.6	1.1	29.5
Quincy	2,536	28.3	1.7	1,072	12	1.9	42.3
Revere	2,645	43.8	1.8	618	10.2	1.1	23.4
Somerville	2,464	50.5	1.7	821	16.8	1.4	33.3
Springfield	6,018	23.7	4.1	3,215	12.7	5.6	53.4
Worcester	9,421	40.8	6.4	5,621	24.3	9.9	59.7

**Table 2. Change in Enrollment of Non-Native Speakers and Students with Limited English Proficiency from AY 1999 to AY 2009**  
 Select School Districts

Percent change		LEP students	
	NNES students		
Massachusetts	20	Massachusetts	26
Marlborough	142	Leominster	315
Everett	93	Worcester	218
Leominster	79	Quincy	183
Worcester	67	Brockton	109
Revere	65	Marlborough	85
Malden	53	Everett	69
Quincy	46	Lowell	68
Framingham	34	Lynn	67
Lynn	29	Malden	43
Chelsea	21	Fall River	42
Newton	18	Newton	41
Brockton	15	Revere	37
New Bedford	11	Springfield	10
Brookline	8	Brookline	3
Lawrence	0	Framingham	3
Boston	-5	Fitchburg	-8
Springfield	-10	Somerville	-14
Fitchburg	-11	New Bedford	-15
Somerville	-11	Chelsea	-19
Holyoke	-17	Lawrence	-21
Lowell	-26	Boston	-23
Fall River	-30	Holyoke	-26

Sources: Massachusetts Department of Elementary and Secondary Education

In the state as a whole as well as in most school districts, LEP students are disproportionately enrolled in elementary school (see Table 4). During academic year 2008, two thirds of the state’s LEP students were attending kindergarten through fifth grade. In Brookline, Framingham, and Marlborough, this fraction was as high as three quarters. Only 16 percent of the state’s LEP students were enrolled in middle school; the remaining 18 percent were high school students. In contrast, 46 percent of English-proficient students were in elementary school, a quarter were middle school students, and nearly one third attended high school. Furthermore, in all districts but New Bedford, the share of LEP students in elementary school was far higher than the share of English-proficient students at the same grade level. In Lawrence, for instance, 72 percent of LEP students were in elementary school, compared with 42 percent of its English-proficient students.

**Demographic Characteristics**

*Gender*

Both students with limited English proficiency and English-proficient students are slightly more likely to be male than female (see Table 5). In academic year 2008, 53 percent of the state’s LEP students and 51 percent of its English-proficient students were male. The districts with the largest numbers of LEP students also enrolled slightly more boys than girls in either of the two proficiency categories—at shares very similar to the state average.

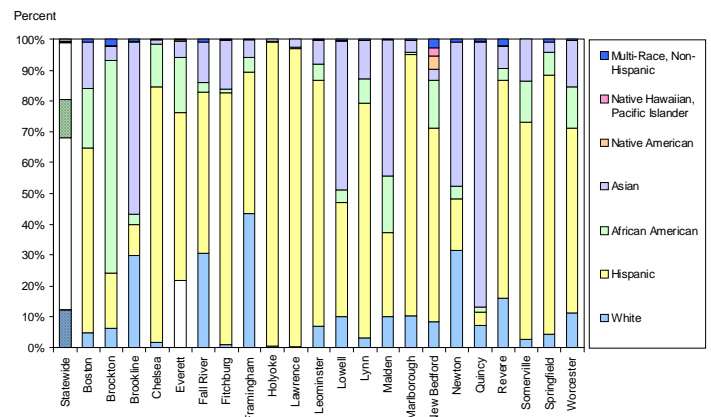
*Race and Ethnicity*

Students with limited English skills are much more racially and ethnically diverse than their English-speaking peers in the Commonwealth (see Table 5). Three out of four English-proficient students in Massachusetts are white; 12 percent are Hispanic; and African Americans and Asians comprise 8 percent and 4 percent, respectively. In comparison, LEP students are more likely to be Hispanic or Asian and much less likely to be white. Over half—56 percent—are Hispanic, and another 18 percent are Asian, whereas non-Hispanic whites account for only 12 percent of statewide LEP enrollment.

Similarly to the state as a whole, LEP students in the majority of districts reviewed here are more

likely to be Hispanic or Asian compared with their English-proficient peers (see Figures 4 and 5). In Fall River, Leominster, and Marlborough, for example, LEP students are over four times more likely to be Hispanic than English-proficient students. In Brookline, Newton, and Quincy, the shares of Asian LEP students are more than three and a half times greater than the shares of Asian English-proficient pupils.

**Figure 4. Race/Ethnicity of Students with Limited English Proficiency, Select Massachusetts Public School Districts, 2008**



Source: Massachusetts Department of Elementary and Secondary Education

**Figure 5. Race/Ethnicity of Students with English-Proficient Students, Select Massachusetts Public School Districts, 2008**



Source: Massachusetts Department of Elementary and Secondary Education

At the same time, the racial and ethnic breakdown of LEP students is far from uniform across districts. Nearly all LEP students in Holyoke and Lawrence are Hispanic, compared with 10 percent or less in Quincy and Brookline. And while Quincy’s largest nonwhite group is Asian students (86 percent), they comprise only one percent of LEP students in Chelsea. African Americans

**Table 3. Students with Limited English Proficiency (LEP), by Type of English Language Learner Program**  
 Select School Districts, October 2008

	Number of LEP students						Percent of LEP students					
	LEP students	SEI	Parental Opt-Out	Two-Way Bilingual	Other Bilingual	No ELL Program	LEP students	SEI	Parental Opt-Out	Two-Way Bilingual	Other Bilingual	No ELL Program
Massachusetts	57,002	46,244	6,227	1,193	1,636	1,702	100	81.1	10.9	2.1	2.9	3.0
Boston	10,579	5,397	4,455	339	388	0	100	51.0	42.1	3.2	3.7	-
Brockton	2,536	1,402	201	83	384	466	100	55.3	7.9	3.3	15.1	18.4
Brookline	539	538	1	0	0	0	100	99.8	0.2	-	-	-
Chelsea	951	951	0	0	0	0	100	100	-	-	-	-
Everett	509	231	213	0	0	65	100	45.4	41.8	-	-	12.8
Fall River	705	550	155	0	0	0	100	78.0	22.0	-	-	-
Fitchburg	567	567	0	0	0	0	100	100	-	-	-	-
Framingham	1,170	494	59	216	401	0	100	42.2	5.0	18.5	34.3	0.0
Holyoke	1,460	1,460	0	0	0	0	100	100	-	-	-	-
Lawrence	2,791	2,372	8	0	0	411	100	85.0	0.3	-	-	14.7
Leominster	598	588	0	0	0	10	100	98.3	-	-	-	1.7
Lowell	4,227	4,144	51	0	4	28	100	98.0	1.2	-	0.1	0.7
Lynn	3,419	2,951	431	0	27	10	100	86.3	12.6	-	0.8	0.3
Malden	655	634	0	21	0	0	100	96.8	-	3.2	-	-
Marlborough	520	512	0	2	0	6	100	98.5	-	0.4	-	1.2
New Bedford	550	550	0	0	0	0	100	100	-	-	-	-
Newton	654	644	3	0	0	7	100	98.5	0.5	-	-	1.1
Quincy	1,072	1,072	0	0	0	0	100	100	-	-	-	-
Revere	618	615	0	0	0	3	100	99.5	-	-	-	0.5
Somerville	821	625	0	123	67	6	100	76.1	-	15.0	8.2	0.7
Springfield	3,215	2,921	294	0	0	0	100	90.9	9.1	-	-	-
Worcester	5,621	5,027	23	14	338	219	100	89.4	0.4	0.2	6.0	3.9

**Table 4. Enrollment by Grade and Most Common Primary Languages, October 2008**  
 Share of students in each category, for selected school districts

	EP students			LEP students					
	Grade enrollment			Grade enrollment			Top 3 Primary Languages		
	Elementary school	Middle school	High school	Elementary school	Middle school	High school	Native Language 1	Native Language 2	Native Language 3
Massachusetts	45.8	23.0	31.2	65.0	16.1	18.9	Spanish	Portuguese	Khmer
Boston	44.3	21.3	34.4	60.0	16.5	23.6	Spanish	Haitian Creole	Cape Verdean Creole
Brockton	45.3	25.0	29.7	63.0	14.7	22.3	Cape Verdean Creole	Haitian Creole	Spanish
Brookline	50.2	20.1	29.7	75.9	14.3	9.8	Japanese	Korean	Hebrew
Chelsea	52.2	21.2	26.6	66.9	14.1	19.0	Spanish	Somali	Portuguese
Everett	46.6	21.7	31.7	60.5	17.5	22.0	Spanish	Portuguese	Haitian Creole
Fall River	50.2	24.2	25.5	66.0	17.3	16.7	Spanish	Portuguese	Khmer
Fitchburg	49.7	21.5	28.8	65.4	20.8	13.8	Spanish	Hmong	Lao
Framingham	47.2	23.9	28.9	74.2	13.7	12.1	Spanish	Portuguese	Haitian Creole
Holyoke	39.8	23.5	36.7	57.9	24.5	17.6	Spanish	Other	Ukrainian
Lawrence	42.1	27.5	30.4	71.6	11.8	16.6	Spanish	Khmer	Vietnamese
Leominster	46.6	23.3	30.1	59.5	22.8	17.8	Spanish	Portuguese	Hmong
Lowell	46.1	26.2	27.8	59.6	20.1	20.3	Khmer	Spanish	Portuguese
Lynn	41.6	22.7	35.7	69.6	13.5	16.9	Spanish	Khmer	Vietnamese
Malden	49.0	23.8	27.2	61.2	15.0	23.8	Chinese	Spanish	Haitian Creole
Marlborough	49.5	24.1	26.5	74.6	13.3	12.1	Spanish	Portuguese	Telugu
New Bedford	54.2	22.0	23.8	45.6	26.2	28.2	Spanish	Portuguese	Haitian Creole
Newton	47.1	21.5	31.4	72.3	15.0	12.7	Spanish	Russian	Korean
Quincy	43.5	22.7	33.9	71.1	11.1	17.8	Canton Dialect	Mandarin Chinese	Vietnamese
Revere	48.3	23.9	27.8	75.6	10.8	13.6	Spanish	Arabic	Portuguese
Somerville	48.0	20.6	31.4	64.9	13.8	21.3	Spanish	Portuguese	Haitian Creole
Springfield	49.2	22.3	28.5	56.3	22.1	21.6	Spanish	Somali	Vietnamese
Worcester	42.9	22.3	34.7	71.2	14.4	14.4	Spanish	Vietnamese	Portuguese

Sources: Department of Elementary and Secondary Education

account for more than two thirds of Brockton’s LEP students but for less than one percent of those in Holyoke, Lawrence, and Marlborough.

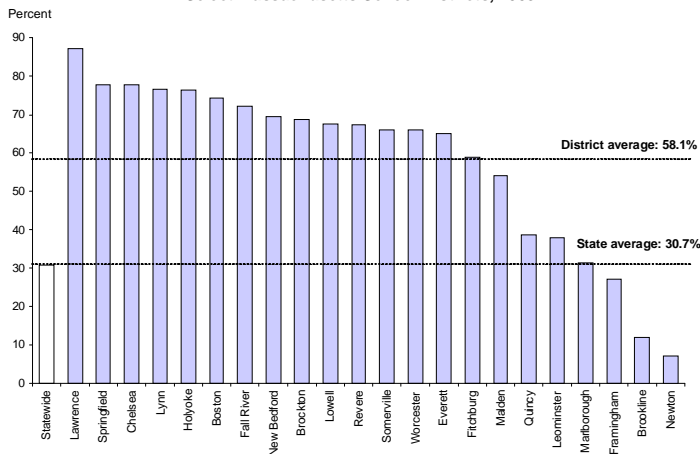
In part because of clustered immigrant settlement patterns, even LEP students in geographically proximate districts often have very different racial and ethnic makeup. For example, the vast majority of limited English-proficient students in Lawrence (97 percent) are Hispanic, compared with just over one third in nearby Lowell. Similarly, 44 percent of Malden’s LEP students are Asian; in neighboring Revere, which is predominantly Hispanic, Asians account for only seven percent of LEP student enrollment.

respectively. Finally, more than half of LEP students in Brockton—forty percent of whose immigrants hail from Africa—speak Cape Verdean Creole as their native language.

Socioeconomic Status

On average, the districts with the largest numbers of LEP students tend to be poorer than the state as a whole. (In this report, socioeconomic status is proxied by eligibility for the free or reduced price school lunch program.) Thirty-one percent of all students in the Commonwealth’s are eligible for free or reduced price lunch, compared with 58 percent of students in the districts discussed here (see Figure 6). Furthermore, over three quarters of LEP students in Massachusetts are low-income—a share that in several districts is far higher (see Table 5). With over 90 percent of LEP students eligible for the lunch program, Fall River, Lynn, and Springfield have the poorest LEP student populations; in thirteen other districts, their fraction exceeds 80 percent. LEP students in Brookline and Newton are the least likely to be low-income, though even there about a fifth of LEP students are eligible for free or reduced price lunches.

**Figure 6. Low-Income Students as a Share of Total Enrollment in Select Massachusetts School Districts, 2008**



Source: Massachusetts Department of Elementary and Secondary Education

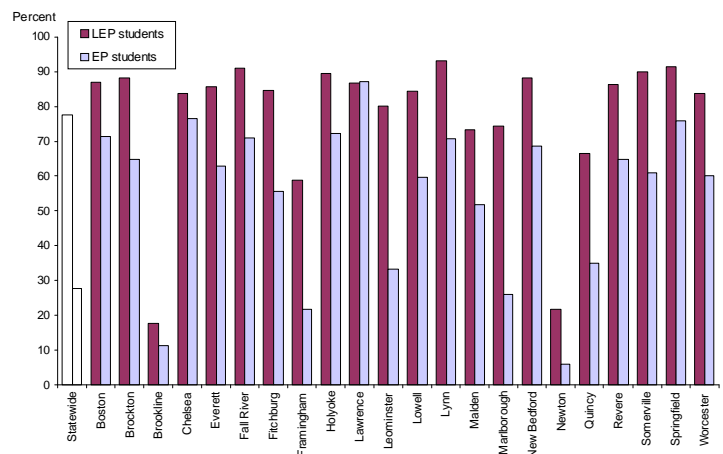
Native Language

By far the most common native language of students with limited English proficiency is Spanish, spoken by more than half of the Commonwealth’s LEP students (see Table 4). A somewhat distant second is Portuguese—native to eight percent of LEP students; another four percent are native speakers of Khmer.

School districts’ most common native languages reflect both the ethnic makeup of their LEP students and various immigrant settlement choices. Spanish is the most common native language in seventeen of the districts reviewed here. In four districts whose LEP students are predominantly Asian—Brookline, Lowell, Malden, and Quincy—the most common native languages are Japanese, Khmer, Chinese, and Cantonese dialect,

Not surprisingly, LEP students have far higher low-income rates than English-proficient students—for the state as a whole and for all school districts except Lawrence (see Figure 7). In Massachusetts, LEP students are nearly three times as likely as English-proficient pupils to be low-income; the proportions are similar in Framingham, Marlborough, and Newton.

**Figure 7. Low-Income LEP Students and English-Proficient Students, as a Share of Total Enrollment in Select School Districts, 2008**



Source: Massachusetts Department of Elementary and Secondary Education

**Table 5. Demographic Characteristics, October 2008**

Share of students in each category, for selected school districts

**Students with Limited English Proficiency**

	Gender		Race/Ethnicity							Low-income
	Males	Females	African American	Asian	Hispanic	White	Native American	Native Hawaiian, Pacific Islander	Multi-Race, Non-Hispanic	
Massachusetts	53.3	46.7	12.4	18.3	56.1	12.0	0.2	0.2	0.8	77.5
District Average	52.5	47.5	10.4	18.7	57.9	11.9	0.3	0.2	0.7	77.5
Boston	53.6	46.4	19.4	14.7	60.0	4.7	0.1	0.1	0.9	87.0
Brockton	53.3	46.7	68.8	4.6	17.9	6.3	0.1	0.2	2.0	88.3
Brookline	53.2	46.8	3.2	55.8	10.0	29.9	0.4	0.0	0.7	17.8
Chelsea	49.0	51.0	13.9	1.3	82.9	1.8	0.0	0.0	0.2	83.8
Everett	50.3	49.7	18.1	4.9	54.4	21.8	0.6	0.0	0.2	85.5
Fall River	52.6	47.4	3.1	13.0	52.2	30.5	0.1	0.1	0.9	90.8
Fitchburg	47.6	52.4	1.2	15.9	81.7	0.9	0.0	0.2	0.2	84.7
Framingham	47.6	52.4	4.7	5.6	45.9	43.5	0.0	0.0	0.3	58.8
Holyoke	52.0	48.0	0.4	0.7	98.4	0.5	0.0	0.0	0.0	89.5
Lawrence	53.0	47.0	0.5	2.5	96.8	0.2	0.0	0.0	0.0	86.7
Leominster	55.0	45.0	5.2	7.7	79.6	7.0	0.2	0.3	0.0	80.3
Lowell	53.0	47.0	4.1	48.3	36.7	10.2	0.1	0.0	0.6	84.4
Lynn	55.4	44.6	7.9	12.2	76.1	3.2	0.0	0.0	0.6	93.2
Malden	55.7	44.3	18.2	44.3	27.3	10.1	0.0	0.0	0.2	73.3
Marlborough	53.5	46.5	0.8	3.7	84.6	10.4	0.0	0.0	0.6	74.4
New Bedford	54.4	45.6	15.6	3.5	62.7	8.4	4.2	2.9	2.7	88.2
Newton	52.0	48.0	4.0	46.8	16.5	31.7	0.0	0.0	1.1	21.7
Quincy	55.4	44.6	1.6	85.9	4.3	7.3	0.1	0.2	0.7	66.5
Revere	50.6	49.4	3.6	7.3	70.6	16.2	0.5	0.0	1.9	86.2
Somerville	51.9	48.1	13.3	13.6	70.3	2.7	0.0	0.0	0.1	89.9
Springfield	53.3	46.7	7.3	3.3	84.1	4.2	0.0	0.0	1.1	91.3
Worcester	52.9	47.1	13.4	15.1	59.8	11.3	0.0	0.0	0.4	83.8

**English-Proficient Students**

	Gender		Race/Ethnicity							Low-income
	Males	Females	African American	Asian	Hispanic	White	Native American	Native Hawaiian, Pacific Islander	Multi-Race, Non-Hispanic	
Massachusetts	51.3	48.7	7.9	4.3	11.7	73.6	0.3	0.1	2.1	27.8
District Average	51.6	48.4	12.6	7.5	30.3	46.5	0.3	0.1	2.7	54.9
Boston	51.4	48.6	42.2	7.1	32.9	15.3	0.5	0.1	1.8	71.3
Brockton	51.0	49.0	45.7	2.1	12.8	35.4	0.8	0.1	3.1	64.9
Brookline	51.1	48.9	8.2	15.0	9.3	61.7	0.1	0.1	5.6	11.3
Chelsea	50.9	49.1	5.8	2.9	80.6	9.9	0.1	0.0	0.7	76.5
Everett	52.1	47.9	15.6	5.4	23.0	54.6	0.6	0.1	0.7	63.0
Fall River	51.7	48.3	8.0	3.8	12.6	72.5	0.4	0.0	2.7	70.8
Fitchburg	50.7	49.3	7.3	4.9	34.2	50.8	0.1	0.1	2.6	55.6
Framingham	51.1	48.9	6.6	6.1	16.6	69.2	0.2	0.0	1.3	21.8
Holyoke	51.4	48.6	4.2	0.9	69.4	25.3	0.0	0.0	0.2	72.2
Lawrence	52.5	47.5	2.3	2.6	86.8	8.1	0.1	0.0	0.1	87.2
Leominster	51.9	48.1	5.9	3.0	17.0	71.5	0.2	0.0	2.3	33.4
Lowell	51.4	48.6	7.9	19.4	18.8	52.2	0.1	0.1	1.5	59.8
Lynn	51.5	48.5	14.7	8.9	35.6	36.1	0.3	0.0	4.6	70.7
Malden	52.7	47.3	19.6	19.1	17.4	39.3	0.7	0.1	4.0	51.8
Marlborough	50.6	49.4	3.0	3.4	21.1	70.3	0.2	0.0	1.9	25.9
New Bedford	52.5	47.5	11.6	1.0	25.8	53.3	0.8	0.6	6.8	68.7
Newton	51.5	48.5	5.1	12.5	5.5	72.0	0.1	0.0	4.7	6.1
Quincy	52.1	47.9	6.2	23.3	4.6	63.8	0.3	0.1	1.7	34.8
Revere	51.1	48.9	3.9	6.9	35.2	49.5	0.8	0.0	3.7	65.0
Somerville	52.2	47.8	14.1	8.0	28.2	48.1	0.3	0.1	1.3	61.0
Springfield	51.5	48.5	25.6	2.0	50.5	17.3	0.1	0.0	4.5	75.8
Worcester	51.8	48.2	13.7	5.6	28.9	47.9	0.5	0.0	3.3	60.1

Source: Department of Elementary and Secondary Education

At the same time, all remaining districts but Brookline have higher shares of English-proficient students eligible for the lunch program than the state does. As a result, though LEP students in these districts are still more likely to be low-income than their English-speaking peers, the eligibility gap

is not nearly as striking as it is at the state level. Lawrence is the only district in which LEP and EP students are equally likely to be low-income: In 2008, 87 percent of students in either group were eligible for the lunch program.

## IV. Student Engagement

This section analyzes the school engagement of students with limited English proficiency and of English-proficient students in Massachusetts, using four indicators: attendance rates, out-of-school suspension rates, grade retention rates, and high school dropout rates. The discussion of attendance rates and suspension rates focuses only on three recent academic years, 2005-06 through 2007-08, as data for earlier years were not easily available. Grade retention is analyzed for the five-year period from 2004 to 2008, while high school dropout rates are available for one additional academic year—2002-03. Thus, dropout rates are the only indicator that spans a period long enough to compare trends before and after the enactment of Question 2. The rest of the section simply reveals recent trends in the school engagement of LEP and English-proficient students.

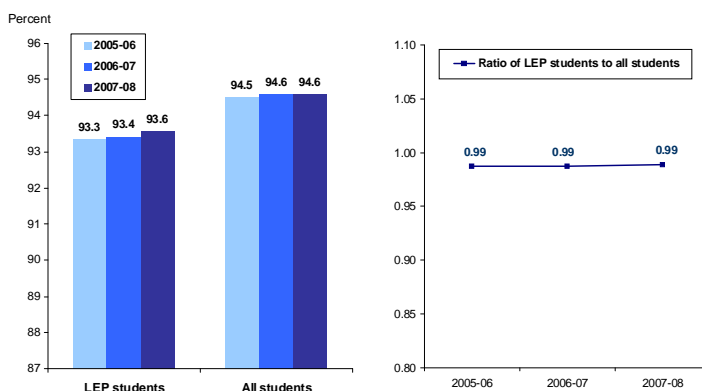
Overall, LEP students have fared somewhat worse relative to their English-proficient peers. While they attended school at rates similar to all students, they were increasingly more likely to be suspended compared with English-proficient pupils. They were also considerably more likely to repeat a grade and to drop out of high school. And while the grade retention gap between LEP and English-proficient students declined over time, the dropout gap increased noticeably.

### Attendance Rates

As attendance rate data are unavailable for English-proficient students, LEP students are compared to all students instead—a comparison should be treated with caution. The attendance rate of all students includes the rates of both English-proficient students and students with limited English skills. Thus, to the extent that LEP students attend school more (or less) frequently

than their English-proficient peers, the comparison of LEP rates to total attendance rates will likely understate any gaps that may exist between LEP and EP student attendance rates.

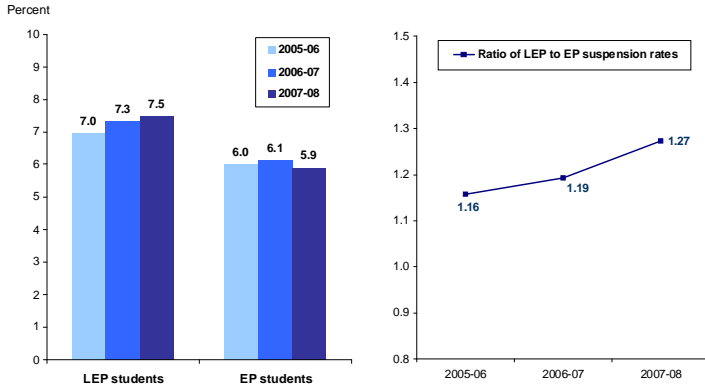
Figure 8. Attendance Rates of Students with Limited English Proficiency (LEP) and of All Students



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Attendance rate is the share of school days during an academic year in which the student is present at school.

During academic years 2006 through 2008, LEP students and all students in the Commonwealth attended school at similar rates. The average LEP student was in attendance for 93.4 percent of the school days in a given academic year—a rate only one percent lower than the total student attendance rate of 94.6 percent (see Figure 8). The attendance rates of the two groups remained virtually unchanged during this three-year period. LEP students' rate rose by a mere 0.2 percent, while the rate of all students grew by 0.1 percent. The barely measurable gap in attendance rates thus remained constant: the ratio of LEP to all students' attendance rates held steady at 0.99 for all three years.

**Figure 9. Suspension Rates of Students with Limited English Proficiency (LEP) and of English-Proficient Students (EP)**

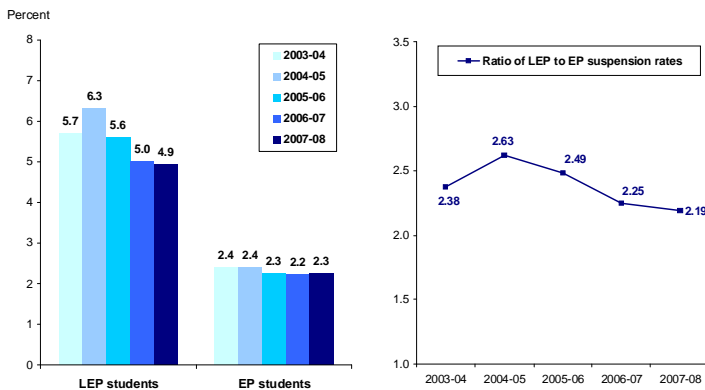


Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Suspension rate is the share of enrolled students who receive one or more out-of-school suspensions during a given academic year.

## Suspension Rates

Though they attended school as frequently as all students did, limited English-proficient students were more likely to receive out-of-school suspensions than their English-speaking peers (see Figure 9). On average, 7.3 percent of LEP students and 6 percent of English-proficient students were suspended at least once each year during this period. Moreover, the annual suspension rate of LEP students increased by 7.5 percent between 2006 and 2008, while for English-proficient pupils, it declined by 2.2 percent. As a result, the gap in suspension rates between the two groups widened. In 2006, LEP students' rate was 16 percent higher than the rate of their peers; in 2008, it was more than a quarter higher.

**Figure 10. Grade Retention Rates of Students with Limited English Proficiency (LEP) and of English-Proficient Students (EP)**

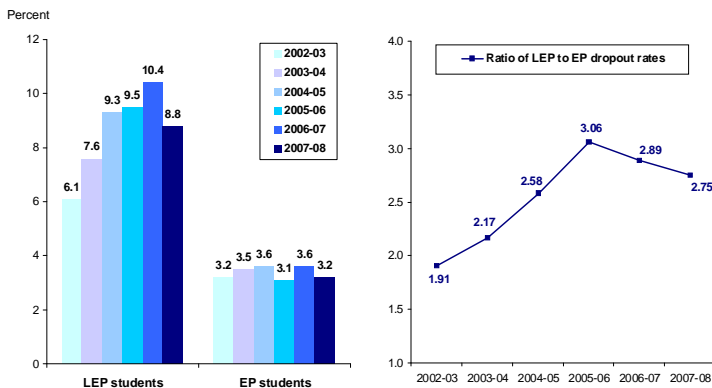


Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Grade retention rate is the share of students required to repeat the grade in which they were enrolled during the previous academic year.

## Grade Retention Rates

Between 2004 and 2008, Massachusetts' LEP students were significantly more likely to repeat a grade compared with English-proficient students (see Figure 10). An average of 5.5 percent of LEP students were retained in the same grade during this period—a rate almost two and a half times higher than the 2.3 percent of English-proficient students who repeated a grade. At the same time, however, grade retention rates for LEP students declined much faster during this period. In 2008, LEP students were retained at rates 13 percent lower than in 2004; for English-proficient students, the decline was less than half as large. This allowed LEP students to narrow the grade retention gap that separates them from their English-speaking peers. After a peak in 2005, when LEP retention rates were 2.6 times as high as EP students' rates, this ratio declined steadily and in 2008 reached its lowest level of 2.2.

**Figure 11. High School Dropout Rates of Students with Limited English Proficiency (LEP) and of English-Proficient Students (EP)**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Dropout rate is the share of students in grades 9-12 who leave school prior to graduation for reasons other than to transfer to another school.

## High School Dropout Rates

The Massachusetts Department of Elementary and Secondary Education calculates two dropout rates—an annual rate and a 4-year cohort rate. The former indicates the share of high school students who drop out in a given academic year; the latter shows the cumulative share of students in a given cohort who drop out of high school over four years. Because of greater data availability, this report uses annual dropout rates.<sup>47</sup>

LEP students in the state were substantially more likely to drop out of high school in a given year than their English-proficient classmates (see Figure 11). For academic years 2003 through 2008, an average of 8.6 percent of LEP high school students dropped out each year, while only 3.4 percent of English-proficient students did. In addition, between 2003 and 2008, LEP student dropout rates rose steeply—by 44 percent—while for English-proficient students they held steady. Because of these diverging trends, the dropout gap between

LEP and English-proficient students widened considerably. In 2003—the only year prior to Question 2 for which data are available—high school students with limited English skills dropped out at rates 1.9 times higher than the rates of their English-speaking classmates. By 2006, their rates had risen steadily and were more than three times as high as EP students’ dropout rates. Although the gap narrowed slightly towards the end of the period, LEP students remained significantly more likely to drop out than their peers.

## V. Academic Achievement

This section presents trends and comparisons of the academic performance of LEP students and English-proficient students for the period between 2001 and 2008. Academic performance is discussed separately for elementary, middle, and high school students, using results from the MCAS Mathematics and English Language Arts (ELA) exams in Grade 4, Grade 7 (for ELA), Grade 8 (for math), and Grade 10 (for both ELA and math). The state-level analysis focuses on two indicators: the combined shares of students who score at levels Advanced, Proficient, or Needs Improvement (leaving out those who score at Warning/Failing), and the share who score at Advanced or Proficient (*i.e.* the proficiency rate). Due to small sample sizes, the district-level analysis and the case studies on individual schools, presented in later sections, discuss only the share of students who score at or above Needs Improvement.

The section begins with a brief overview of student performance at the 2008 MCAS exams (the most recent year for which results are publicly available). The overview covers all reporting districts, in which at least 10 students in each subgroup took the test. This is followed by a detailed examination of how the outcomes and the relative performance of LEP students and English-proficient students changed between 2001 and 2008.

### **MCAS Results: A Snapshot of 2008**

In the 2008 MCAS exams, students with limited English proficiency performed at levels significantly

below those of their English-proficient peers in all grade levels and for all subjects. In Grades 4, 7, and 10, they passed both the ELA and the math tests at rates only two thirds to three quarters as high as those of English-proficient students (see Appendix Table 1). In Grade 8 math, the comparison was even more discouraging: the rate of LEP students scoring at or above Needs Improvement was just over one third the rate of their English-proficient classmates.

A district comparison of 2008 MCAS results reveals substantial disparities in LEP students’ performance relative to English-proficient pupils. In only a handful of districts, higher shares of LEP students performed at or above Needs Improvement compared with English-proficient students, and the majority of these districts had lower than average enrollments of LEP students. This result is consistent with the findings of a recent MassINC report, which discovered that the districts with the largest gains in academic performance since the 1993 Education Reform Act experienced declines in their shares of LEP students—in contrast to the remaining districts, which saw this share rise over the same period.<sup>48</sup>

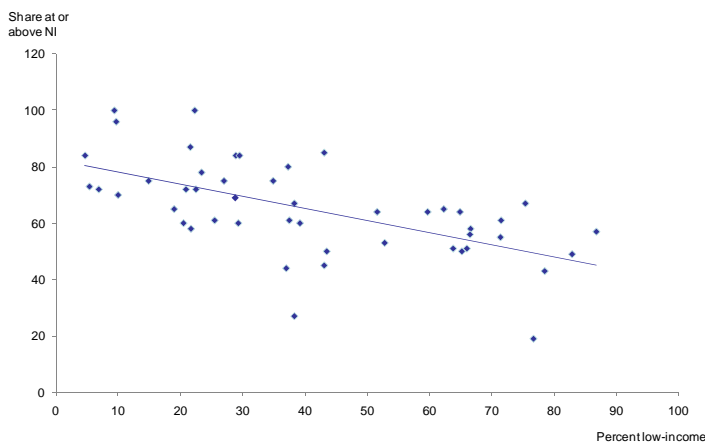
Furthermore, the well-tested negative correlation between students’ academic achievement and their socioeconomic background appears here as well (see Figure 12).<sup>iv</sup> Most districts with high-

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<sup>iv</sup> The MCAS results presented in Figure 8 are from the Grade 4 ELA test. Scatter plots using results from all other MCAS exams show very similar relationships.

performing LEP students have low student poverty rates. Notable exceptions include Quincy (4 and 8 grade), Framingham (7, 8, and 10 grade), Fitchburg (10 grade), and Randolph (10 grade), whose LEP students performed very well and at times even outscored their English-proficient peers. Conversely, districts with high shares of low-income students typically have both lower LEP MCAS scores and large gaps in the relative performance of LEP students and English-proficient students—as indicated by their low ratios of the shares of LEP to EP students scoring at Needs Improvement or higher.

**Figure 12. Districts' Shares of Low-Income Students and of LEP Students Scoring at or above Needs Improvement at the 4th Grade ELA exam, 2008**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Income status is proxied using students' eligibility for free or reduced price lunch.

It is difficult to determine from these data whether the performance of students with limited English skills is influenced primarily by their socioeconomic status, by the type of English support programs implemented in their districts, or by other factors altogether—such as the impact of the 1993 education reform, which doubled state aid for education, increased funding for districts with large special populations (such as LEP students and low-income students), and introduced learning standards and accountability measures.<sup>49</sup> It is even more difficult to determine what the impact of the policy change mandated by Question 2 has been on LEP students' academic achievement.

A closer look at how the gaps in performance between LEP students and English-proficient students have changed *over time* is more meaningful in answering this question. Data constraints prohibit us from explicitly controlling for factors like income level, parental education, or family

transiency that also influence student achievement. However, as these factors remain fairly stable over time, large changes in the relative performance of LEP students and EP students between 2001 and 2008 could potentially be attributed at least in part to Question 2.

Finally, one caveat to this approach bears mentioning. When LEP students attain fluency in English, they are no longer coded as limited English-proficient and are counted in the English-proficient group instead. As the composition of the two proficiency groups changes from year to year, it is difficult to demonstrate progress within the LEP population using aggregate data. Longitudinal data tracking individual students would be more appropriate for such inquiries; unfortunately, such data were unavailable for this analysis.

### **MCAS Results: Trends in Performance from 2001 to 2008**

A review of MCAS scores for academic years 2000-01 through 2007-08 reveals persistent gaps in the performance of students with limited English skills relative to their English-proficient classmates. In all years, all grade levels, and all subjects, the shares of LEP students performing at or above the Needs Improvement level were significantly below those of English-proficient students—as were the shares of LEP students attaining proficiency. While the persistence of these gaps is worrying, the question more central to this analysis is how the gaps changed during this period—particularly around academic year 2003-04 when Question 2 was first enacted.

The findings of our analysis are mixed. They reveal significant gains for certain grade levels and subjects, but no change or even losses for others. LEP students in elementary school, for example, demonstrated solid gains in mathematics relative to their English-proficient classmates, though the improvement in their performance leveled off in recent years. Improvement in Grade 4 English Language Arts was very limited, however, and the ELA proficiency gap actually widened slightly.

In middle school, the proficiency rate of LEP students and their fraction scoring at or above Needs Improvement were both on the rise until 2004, when their growth suddenly stopped and

reversed. English-proficient students, in contrast, continued to improve. As a result, the gaps between LEP and EP students' performance narrowed at first but subsequently grew again, in most cases finishing the period wider than they were in 2001.

Grade 10 MCAS results paint yet a different portrait. LEP students' ability to pass both tests improved considerably: The shares of LEP students scoring at or above the Needs Improvement level grew much faster than those of English-proficient students, resulting in substantial narrowing of the performance gap. Their relative capacity to attain proficiency—particularly in math—barely changed, however, as the proficiency rates of the two groups grew at a similar pace.

### Elementary School

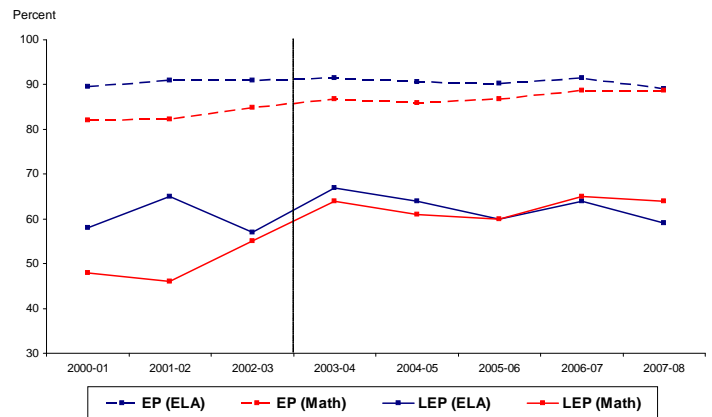
Between 2001 and 2008, students with limited English skills showed marked improvement in the Grade 4 MCAS math test. Their shares scoring at Needs Improvement or higher increased by a full third, averaging an annual growth rate of 4 percent (see Figure 13). The corresponding shares of English-proficient students grew four times slower. As a result, the performance of LEP students relative to their English-proficient classmates—as defined by the ratio of LEP to EP shares at or above Needs Improvement—improved by nearly a quarter (see Figure 15). In academic year 2001, LEP students passed the test at a rate just under 60 percent the rate of EP students. By 2008, this ratio had risen to nearly three quarters.

Improvement in terms of attaining proficiency in mathematics was even more pronounced. The share of LEP students scoring at level Proficient or Advanced increased from 10 percent in 2001 to 19 percent in 2008 (see Figure 14). The proficiency rates of English-proficient students also increased, though their growth was only half as large. Thus, the gap in performance between LEP students and EP students narrowed: The ratio of LEP students' proficiency rates to EP proficiency rates increased by one third from 0.28 to 0.37 (see Figure 15).

After academic year 2003-04, the growth in LEP students' overall performance, proficiency rates, and the LEP/EP ratios slowed (see Figures 13-15). However, they remained at least as high—or

higher—than their pre-Question 2 levels. In the three years prior to Question 2 for which we have data, the fractions of LEP students scoring at or above Needs Improvement averaged 50 percent; in the five years subsequent to the policy change, they averaged a quarter higher: 63 percent. In comparison, the average EP share after Question 2 was only 5 percent higher than its average level prior to the policy change.

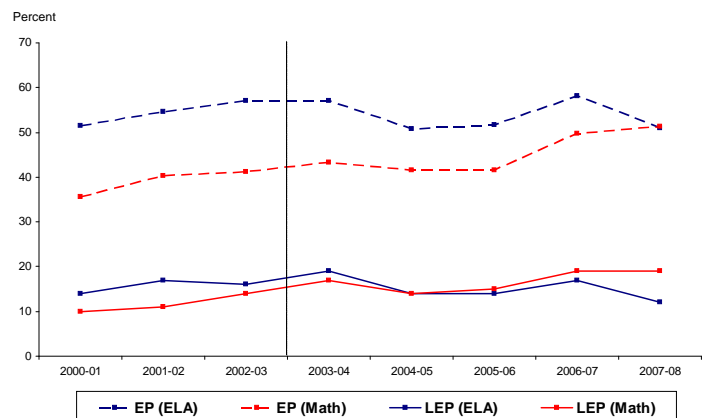
**Figure 13. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement**



Source: Massachusetts Department of Elementary and Secondary Education

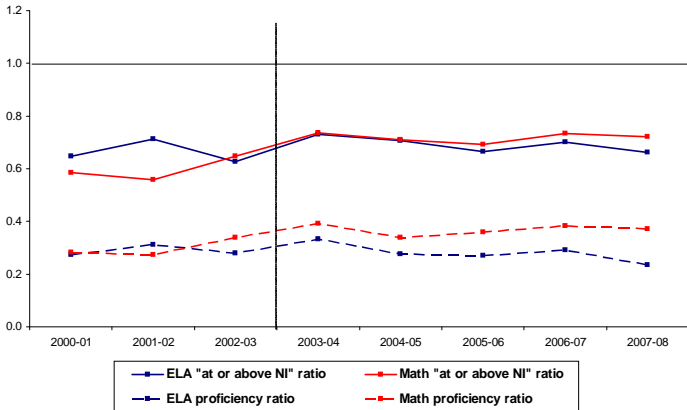
Unlike in mathematics, fourth-graders' performance in English Language Arts (ELA) changed very little between 2001 and 2008. The share of LEP students performing at Needs Improvement or higher increased by only 1.7 percent; for English-proficient pupils, it declined by 0.5 percent (see Figure 13).

**Figure 14. 4<sup>th</sup> Grade MCAS Proficiency Rates of LEP Students and English-Proficient Students (EP)**



Source: Massachusetts Department of Elementary and Secondary Education  
Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

**Figure 15. 4<sup>th</sup> Grade MCAS Proficiency Rates and Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

The gap in achievement between LEP students and English-proficient students barely changed: The LEP to EP “at or above Needs Improvement” ratio grew by 2.2 percent for the entire period (see Figure 15). Proficiency rates declined for both groups, but more so for LEP students. As a result, the relative performance of LEP students, measured by the LEP/EP proficiency ratio, declined by 13 percent.

Interestingly, the proficiency rates of the two groups followed similar patterns: They were stable during the first half of the period and somewhat erratic later, declining between 2004 and 2006, rising in 2007, and dipping again in 2008 (see Figure 14). The similar proficiency trends of LEP and EP students, along with the two groups’ fairly stable overall performance, suggest that the influence of Question 2 on student performance in English Language Arts—if any—was likely outweighed by factors that affected LEP students and English-proficient students in similar ways.

Finally, at the beginning of the period, the shares of LEP students attaining proficiency and the shares performing at or above Needs Improvement were both lower for mathematics than for ELA. Because of sustained improvement in mathematics and virtually no change in ELA, however, math performance eventually surpassed ELA results (see Figures 13 and 14). As Beals and Porter (2000) note, the superior performance in ELA than in math prior to Question 2 runs counter to a basic theoretical underpinning of bilingual education: that

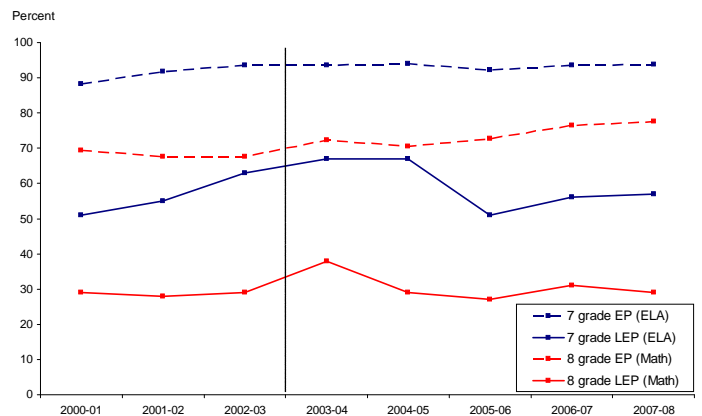
LEP students learn more effectively when taught content in their native language. In this light, the reversal in relative performance by subject may indicate, among other things, that math was not taught as effectively in bilingual classrooms as it is in SEI, that the quality of English language instruction was higher than the quality of math instruction in TBE classrooms, or that there was a lack of native language textbooks or teaching materials for subjects taught in native languages.<sup>50</sup>

During that period, however, English-proficient students displayed similar trends in performance by subject. Their ability to score at or above Needs Improvement in math and their math proficiency rates started out lower and eventually caught up to their ELA rates (though they never exceeded them). Thus, the improvement of LEP student performance in math relative to English may also be due to factors common to all students—such as renewed attention to math curriculums or the usage of superior math instruction techniques.

Middle School

The middle school section of this analysis uses MCAS results from the Grade 7 ELA exam and the Grade 8 math exam—the two MCAS exams administered every year during the period covered in this report. Test results from both subjects reveal a somewhat discouraging story about the academic performance of LEP middle-school students between 2001 and 2008.

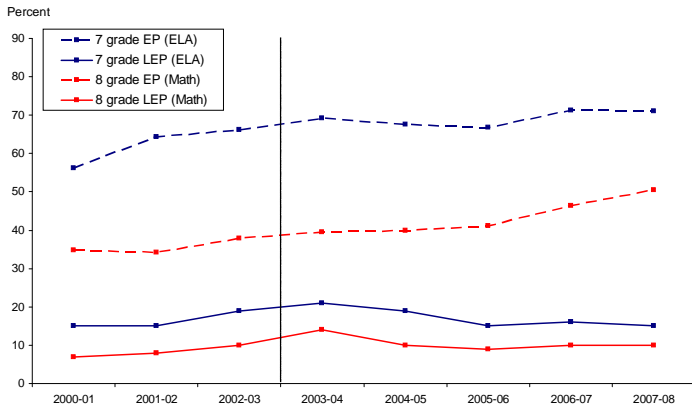
**Figure 16. 7<sup>th</sup> Grade and 8<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement**



Source: Massachusetts Department of Elementary and Secondary Education

For both ELA and mathematics, LEP students' overall performance and proficiency rates in 2008 were similar to their 2001 levels (see Figures 16 and 17). In 2008, 57 percent of seventh-graders passed the ELA exam at or above Needs Improvement, compared with 51 percent in 2001. Proficiency rates remained unchanged, at 15 percent for both years.

**Figure 17. 7<sup>th</sup> Grade and 8<sup>th</sup> Grade MCAS Proficiency Rates of LEP Students and English-Proficient Students (EP)**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

In 8<sup>th</sup> grade math, the same share—29 percent—scored at Needs Improvement or higher in both 2001 and 2008, though these shares averaged slightly higher after 2004 than before. Math proficiency rates edged up but remained very low, at 10 percent.

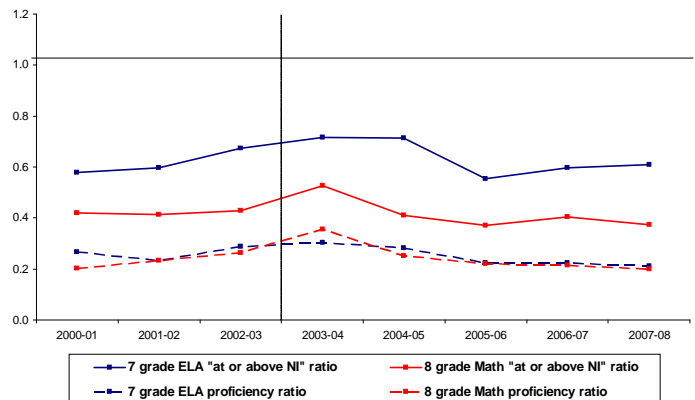
The similarity in LEP students' academic achievement at the beginning and the end of this period is only half the story, however, as it masks the trends that occurred during these eight years. In both subjects, LEP students' performance was steadily on the rise between 2001 and 2004. This trend appears to have stopped and reversed after academic year 2004, when—coincidentally or not—Question 2 came into effect. After 2004, rates deteriorated steadily, nearly reaching their levels from 2001.

The MCAS results of English-proficient students followed a different pattern. For both subjects, EP student performance improved steadily throughout the entire period. This improvement was especially pronounced in proficiency rates, which rose by more than a quarter for ELA and by 45 percent for

math. The growth in EP students' ability to score at or above Needs Improvement was slower but consistent. And while growth in ELA overall results and proficiency rates slowed down in the second half of the period, English-proficient students—unlike their LEP classmates—do not appear to have suffered a drop in performance in either subject.

Given the diverging trends, the *relative* performance of LEP students first improved and subsequently deteriorated (see Figure 18). The ratios of LEP to English-proficient students' results rose up until 2004 and then declined steadily—in most cases finishing the period at levels lower than they started it. For instance, in 2001, the share of LEP eighth-graders scoring at or above Needs Improvement in math was 43 percent of the share of English proficient students. In 2004, this ratio reached 53 percent, but by 2008 it had declined to 37 percent—a drop of nearly 11 percent from its 2001 level. Similarly, the ratio of LEP to EP proficiency rates for 7<sup>th</sup> grade ELA, originally at 27 percent, rose to 30 percent in 2004, but then declined to 21 percent and closed the period at a level more than a fifth lower than its original value.

**Figure 18. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS Proficiency Rates and Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students**



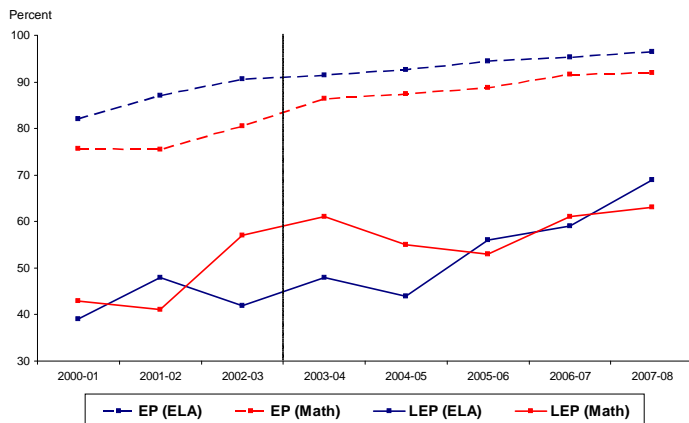
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

### High School

MCAS results for 10<sup>th</sup> grade ELA and mathematics show solid growth in LEP students' ability to score at or above the Needs Improvement level but less pronounced gains in their capacity to attain proficiency.

Between 2001 and 2008, the share of limited English-proficient students performing at or above Needs Improvement in the math test rose by nearly a half, from 43 percent in 2001 to 63 percent in 2008 (see Figure 19). Most of this growth occurred before 2004. In 2005 and 2006, these shares declined and then increased again, ending at their highest level in 2008. Despite the dip in second half of the period, the LEP shares at or above Needs Improvement averaged higher after 2004 than in the three years before. The shares of English-proficient students performing at these levels also grew, albeit at rates twice as slow as for their LEP classmates. Unlike for LEP students, however, EP students' performance did not decline after 2004, though their improvement slowed down somewhat. Over the entire period, the gap in relative performance narrowed: The ratio of LEP students' shares to EP students' shares at or above Needs Improvement increased by one fifth.

**Figure 19. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement**

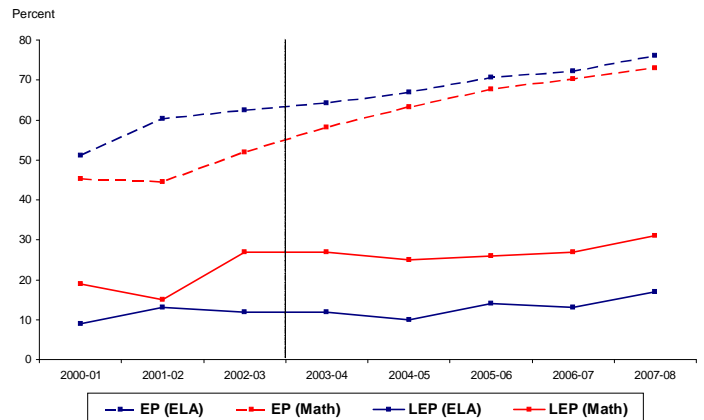


Source: Massachusetts Department of Elementary and Secondary Education

Proficiency rates in mathematics tell a slightly different story. The share of LEP students attaining proficiency in math grew by nearly two thirds: from 19 percent in 2001 to 31 percent in 2008 (see Figure 20). The proficiency rate increased prior to 2004 and remained fairly steady afterwards, averaging higher in the second half of the period. The fraction of English-proficient students scoring at level Proficient or Advanced grew at a similar rate and rose by 61 percent between 2001 and 2008. As a result, despite rising proficiency rates, LEP students' proficiency relative to their English-

proficient classmates was the same in 2008 as it was in 2001.

**Figure 20. 10<sup>th</sup> Grade MCAS Proficiency Rates of LEP Students and English-Proficient Students (EP)**



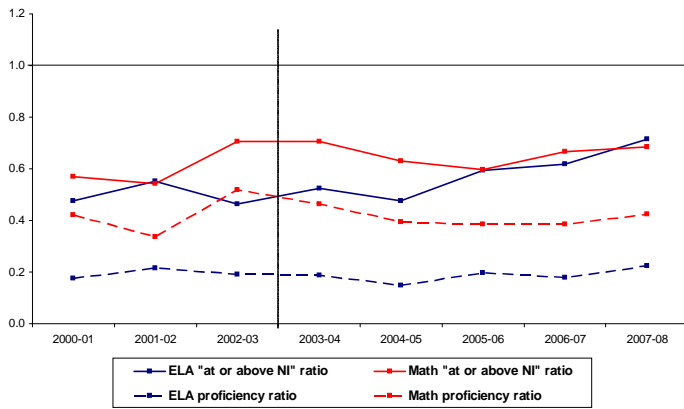
Source: Massachusetts Department of Elementary and Secondary Education  
Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

The trends in relative performance and proficiency in mathematics, however, tell a more interesting story than the simple comparison of their beginning and ending values. The LEP/EP ratios of both the shares at or above Needs Improvement and the proficiency rates improved in the first three years, peaked in 2003 and 2004, deteriorated somewhat since then, and trended back up again near the end of the period (see Figure 21). The U-shaped pattern of the post-Question 2 rates may be suggestive of the time and effort it takes to adjust classroom practices to a new English language instructional model.

For example, since Question 2 requires even low-incidence districts to provide sheltered English immersion for their LEP students, many more schools had to introduce SEI than previously had TBE programs. More teachers now needed to adjust content instruction to LEP students' needs, but initially few were trained in how to do it effectively (or at all). Over time, the Massachusetts Department of Elementary and Secondary Education identified the skills and knowledge needed by SEI educators, state funds appropriated for teacher professional development increased, and so did the number of teachers trained in content sheltering techniques—all of which may have contributed to the uptick in student performance near the end of the period. As of May 2009, the Department estimates that about 60

percent of the needed 6,500 to 7,500 teachers have been fully trained. Conditional on sufficient budget appropriations, 2,000 more teachers could be trained in the next fiscal year.<sup>51</sup>

**Figure 21. 10<sup>th</sup> Grade MCAS Proficiency Rates and Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Proficiency rates are the combined shares of students who score at Advanced or Proficient levels.

The improvement of tenth-graders with limited English proficiency was even more impressive in English Language Arts. In 2008, 69 percent of LEP students passed the ELA test at or above the Needs Improvement level—up more than three quarters from the 2001 rate of 39 percent (see Figure 19). Unlike for mathematics, most of the growth in ELA results occurred after 2004. The fraction of English-proficient students scoring at or above Needs Improvement changed much more slowly, increasing by 18 percent during the entire period. As a result, the relative performance of LEP students improved substantially and consistently (see Figure 21). The ratio of LEP students’ “at or above NI” shares to those of their English-proficient peers rose by half: In 2001, the LEP

share was less than half that of EP students; by 2008, this ratio had risen to three quarters.

The share of LEP students reaching proficiency in 10<sup>th</sup> grade ELA also rose substantially, nearly doubling from 9 percent in 2001 to 17 percent in 2008 (see Figure 20). Still, their proficiency rates remained significantly below those of English-proficient students, and their growth throughout this period was somewhat erratic. Meanwhile, EP students’ proficiency rates grew at slower but consistent rates. As a result, the proficiency gap between LEP students and English-proficient students remained fairly stable and narrowed only towards the end of the period (see Figure 21). Between 2001 and 2008, LEP students attained proficiency at rates, on average, only 19 percent as high as the rates of their English-proficient classmates; in 2008, the ratio rose to 22 percent.

Finally, starting with the class of 2003, Massachusetts students have to pass the Grade 10 MCAS ELA and math exams in order to graduate. This high-stakes requirement, combined with the new accountability for LEP students’ performance mandated by No Child Left Behind, has likely sharpened educators’ focus on the learning needs of limited English-proficient students and contributed to their improved performance. As we said earlier, given our data constraints, we cannot separate the impact of Question 2 from the influence of other such factors. Still, the substantial improvement in LEP students’ ability to score at least at the Needs Improvement level and the stability of their relative proficiency suggest that, at the very least, the transition from TBE to sheltered English immersion did little to hinder the academic progress of LEP tenth-graders.

## VI. District-level Analysis of Student Engagement and Academic Achievement

### Student Engagement

#### Attendance Rates

Between 2006 and 2008, the average attendance rates of students with limited English proficiency in the districts with the largest LEP enrollments were similar to the rates in Massachusetts as a whole (see

Table 6). On average, LEP students in these districts were present in school for 93.7 days of the year, compared with 93.4 days for their LEP peers statewide. Across-district comparisons reveal some disparities, though in the vast majority of districts LEP attendance rates were above 90 percent in all three years. LEP students in Quincy attended school most frequently. At 96.6 percent, their rate was more than 9 percent higher than the districts’

**Table 6. Attendance Rates**

Select School Districts, AY 2006 through 2008

	LEP students				All students				LEP/All ratio				Change from 2006 to 2008 (%)	
	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	LEP	All
Massachusetts	93.3	93.4	93.6	93.4	94.5	94.6	94.6	94.6	0.99	0.99	0.99	0.99	0.2	0.1
District Average	93.7	93.6	93.7	93.7	93.4	93.5	93.5	93.5	1.00	1.00	1.00	1.00	0.0	0.1
Boston	92.9	93.0	93.0	93.0	91.5	91.7	91.9	91.7	1.02	1.01	1.01	1.01	0.1	0.4
Brockton	94.8	94.9	95.0	94.9	93.0	93.2	93.3	93.2	1.02	1.02	1.02	1.02	0.1	0.3
Brookline	95.8	95.3	95.4	95.5	95.4	95.5	95.7	95.5	1.00	1.00	1.00	1.00	-0.4	0.3
Chelsea	95.1	95.5	95.6	95.4	93.5	94.2	94.4	94.0	1.02	1.01	1.01	1.01	0.5	1.0
Everett	93.5	93.6	93.8	93.6	93.5	93.2	93.4	93.4	1.00	1.00	1.00	1.00	0.3	-0.1
Fall River	92.1	92.0	92.4	92.2	91.3	91.5	91.5	91.4	1.01	1.01	1.01	1.01	0.3	0.2
Fitchburg	92.4	92.8	92.9	92.7	92.8	92.8	92.6	92.7	1.00	1.00	1.00	1.00	0.5	-0.2
Framingham	94.1	94.3	94.2	94.2	94.8	94.9	95.1	94.9	0.99	0.99	0.99	0.99	0.1	0.3
Holyoke	90.6	89.4	89.3	89.8	91.3	90.8	90.4	90.8	0.99	0.98	0.99	0.99	-1.4	-1.0
Lawrence	93.5	92.4	93.6	93.2	93.4	92.3	93.4	93.0	1.00	1.00	1.00	1.00	0.1	0.0
Leominster	93.1	93.5	93.3	93.3	94.4	94.4	94.2	94.3	0.99	0.99	0.99	0.99	0.2	-0.2
Lowell	92.3	93.3	93.2	92.9	92.7	93.5	93.1	93.1	1.00	1.00	1.00	1.00	0.9	0.4
Lynn	94.2	95.3	95.3	94.9	93.4	94.9	94.7	94.3	1.01	1.00	1.01	1.01	1.2	1.4
Malden	94.8	94.7	94.4	94.6	94.0	93.8	93.9	93.9	1.01	1.01	1.01	1.01	-0.4	-0.1
Marlborough	94.2	93.9	94.4	94.2	95.2	94.2	95.0	94.8	0.99	1.00	0.99	0.99	0.2	-0.2
New Bedford	93.4	93.2	93.0	93.2	93.2	93.0	92.8	93.0	1.00	1.00	1.00	1.00	-0.5	-0.4
Newton	95.6	95.4	95.5	95.5	95.4	95.9	95.8	95.7	1.00	0.99	1.00	1.00	-0.1	0.4
Quincy	97.0	96.3	96.4	96.6	94.5	94.4	94.3	94.4	1.03	1.02	1.02	1.02	-0.7	-0.2
Revere	94.9	94.9	95.3	95.0	94.2	94.6	94.8	94.5	1.01	1.00	1.00	1.01	0.4	0.6
Somerville	93.8	93.4	94.3	93.8	93.4	93.4	93.5	93.4	1.00	1.00	1.01	1.00	0.6	0.1
Springfield	88.6	88.0	88.0	88.2	90.2	89.9	89.4	89.8	0.98	0.98	0.98	0.98	-0.8	-0.9
Worcester	94.5	94.2	94.2	94.3	94.3	94	93.9	94.1	1.00	1.00	1.00	1.00	-0.3	-0.4

**Table 7. Suspension Rates**

Select School Districts, AY 2006 through 2008

	LEP students				All students				LEP/All ratio				Change from 2006 to 2008 (%)	
	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	LEP	EP
Massachusetts	7.0	7.3	7.5	7.3	6.0	6.1	5.9	6.0	1.2	1.2	1.3	1.2	7.5	-2.2
District Average	7.3	9.4	8.8	8.5	10.4	10.9	10.9	10.7	0.7	0.8	0.7	0.8	20.4	5.6
Boston	4.1	5.5	5.3	5.0	9.0	10.1	9.4	9.5	0.5	0.5	0.6	0.5	29.0	4.7
Brockton	9.4	14.8	14.5	12.9	19.3	19.1	19.5	19.3	0.5	0.8	0.7	0.7	54.3	1.0
Brookline	0.6	2.5	0.5	1.2	2.7	3.0	2.1	2.6	0.2	0.8	0.3	0.5	-4.5	-23.9
Chelsea	4.0	5.9	4.3	4.7	6.2	8.9	4.2	6.4	0.6	0.7	1.0	0.7	8.7	-32.7
Everett	5.8	10.0	5.9	7.2	6.7	10.1	8.8	8.5	0.9	1.0	0.7	0.8	1.1	30.3
Fall River	12.3	14.9	12.5	13.2	20.5	16.8	16.4	17.9	0.6	0.9	0.8	0.7	1.4	-19.8
Fitchburg	6.0	9.7	12.5	9.4	6.6	10.6	13.0	10.1	0.9	0.9	1.0	0.9	109.6	97.5
Framingham	2.4	3.1	1.4	2.3	4.3	3.6	3.7	3.8	0.6	0.9	0.4	0.6	-43.5	-14.9
Holyoke	25.6	30.3	33.4	29.8	28.4	30.5	31.4	30.1	0.9	1.0	1.1	1.0	30.6	10.4
Lawrence	6.0	8.4	7.5	7.3	13.0	11.7	13.2	12.6	0.5	0.7	0.6	0.6	25.0	1.3
Leominster	12.8	9.7	9.7	10.7	11.5	7.8	7.1	8.8	1.1	1.2	1.4	1.2	-24.2	-38.3
Lowell	6.1	0.0	10.4	5.5	4.4	0.0	10.9	5.1	1.4	1.0	0.9	1.1	71.0	146.1
Lynn	11.9	14.8	13.1	13.3	18.2	20.8	19.8	19.6	0.7	0.7	0.7	0.7	9.7	8.9
Malden	5.8	10.7	5.1	7.2	9.7	10.2	7.3	9.1	0.6	1.0	0.7	0.8	-12.7	-25.4
Marlborough	1.4	0.2	0.0	0.5	1.0	0.4	0.0	0.5	1.4	0.6	1.0	1.2	-100.0	-100.0
New Bedford	12.2	13.9	13.0	13.0	15.1	16.3	16.0	15.8	0.8	0.9	0.8	0.8	6.4	6.2
Newton	1.6	1.4	0.9	1.3	2.7	2.9	2.4	2.7	0.6	0.5	0.4	0.5	-42.3	-9.1
Quincy	0.0	3.4	1.9	1.8	1.6	5.8	6.4	4.6	0.0	0.6	0.3	0.4	-	313.4
Revere	5.0	8.0	4.4	5.8	8.7	9.0	9.6	9.1	0.6	0.9	0.5	0.6	-12.6	9.7
Somerville	4.9	7.5	9.4	7.3	10.2	10.7	10.2	10.4	0.5	0.7	0.9	0.7	92.7	0.1
Springfield	12.9	17.3	13.1	14.5	15.1	16.7	15.5	15.8	0.9	1.0	0.8	0.9	1.3	2.9
Worcester	9.8	15.1	14.6	13.1	12.9	14.7	13.8	13.8	0.8	1.0	1.1	0.95	48.4	6.6

Source: Massachusetts Department of Elementary and Secondary Education

Note: Attendance rate is the share of school days during an academic year in which the student is present at school. Suspension rate is the share of enrolled students who receive one or more out-of-school suspensions during a given academic year.

lowest average rate—Springfield’s 88.2 percent.

Total student attendance rates in these districts, on the other hand, were slightly lower than the state’s rate. All students in these districts attended school, on average, 93.5 percent of the time—just over one percentage point lower than the state’s total attendance rate. As a result, the performance of LEP students relative to the entire student population in terms of attendance was virtually identical. The district average ratio of LEP to all students’ rates was equal to one in each of the three years. Comparing the ratios across districts reveals no dominant trends: in thirteen districts, LEP students attended school at rates slightly higher than all students; in nine districts, their attendance rates were lower. Overall, individual districts’ ratios varied only slightly, ranging from 0.98 to 1.03.

The attendance of both groups changed very little during this period. The district average attendance rate of LEP students held steady, while the total student rate grew by a mere 0.1 percent. Across districts, rates grew the fastest in Lynn, increasing by 1.2 percent for LEP students and 1.4 percent for all students between 2006 and 2008. They declined the most in Holyoke: by 1.4 percent for LEP students and by 1 percent for its entire student body.

#### Suspension Rates

In all three years, LEP students in these districts were more likely to receive out-of-school suspensions than LEP students in the state as a whole (see Table 7). On average, 8.5 percent of the districts’ LEP students were suspended at least once, compared with 7.3 percent in the Commonwealth. Furthermore, suspension rates reveal much greater disparities across districts than do attendance rates. For example, in Holyoke, where nearly one third of LEP students were suspended each year, the average suspension rate over the three years was more than 55 times greater than that of Marlborough, which only suspended 0.5 percent of its LEP students.

Interestingly, English-proficient students in the 22 districts were considerably more likely to receive suspensions compared with EP students in the Commonwealth. Each year, the average EP suspension rate in these districts was at least three

quarters higher than the state’s. As a result, while LEP students in Massachusetts were 20 to 30 percent more likely to be suspended than their English-proficient peers, this comparison yields the opposite results for the districts reviewed here. In only three districts—Leominster, Lowell, and Marlborough—LEP students had average suspension rates higher than the rates of EP students. In all other districts, LEP students were less likely to be suspended, and often substantially so. In Quincy, Newton, Boston, and Brookline, for instance, LEP students were suspended, on average, at rates more than 50 percent lower than their English-proficient classmates.

Finally, between 2006 and 2008, the district average suspension rates of LEP and English-proficient students both increased, though considerably more so for LEP students. Their rates rose by 20 percent, compared with a 6-percent increase in EP suspension rates. Again, these averages mask significant variation among districts. In Fitchburg, for instance, the suspension rates of both LEP students and EP students doubled in this three-year period. In Framingham and Newton, by contrast, LEP suspension rates declined by more than 40 percent, while their EP rates declined at slower rates.

#### Grade Retention Rates

Despite receiving more suspensions, LEP students in these districts were actually less likely to repeat a grade than their statewide peers with limited English skills (see Table 8). Between 2006 and 2008, an average of 4.8 percent of LEP students were retained in the grade in which they were enrolled the previous year. As with suspension rates, however, grade retention varies widely among districts. LEP students in Springfield, Boston, and Holyoke were most likely to repeat a grade. Their retention rates were nine to ten times higher than in Brookline and Newton, which boasted the lowest LEP grade retention rates.

As with out-of-school suspensions, English-proficient students in these districts were more likely to repeat a grade than their EP peers statewide. As a result, the district average LEP to EP grade retention ratios were substantially lower than the ratios in the Commonwealth in all three years. Still, in all districts but one, LEP students had

**Table 8. Grade Retention Rates**

Select School Districts, AY 2006 through 2008

	LEP students				All students				LEP/All ratio				Change from 2006 to 2008 (%)	
	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	LEP	EP
Massachusetts	5.6	5.0	4.9	5.2	2.3	2.2	2.3	2.2	2.5	2.2	2.2	2.3	-11.7	0.1
District Average	5.1	4.8	4.4	4.8	3.9	3.7	3.9	3.9	1.4	1.5	1.2	1.4	-14.4	-1.1
Boston	9.1	7.0	7.4	7.8	6.9	6.5	7.1	6.8	1.3	1.1	1.0	1.2	-19.2	2.8
Brockton	3.8	3.4	2.5	3.2	3.6	3.4	3.6	3.5	1.0	1.0	0.7	0.9	-33.6	0.2
Brookline	1.3	1.1	0.3	0.9	0.9	0.4	0.5	0.6	1.5	3.1	0.5	1.5	-79.9	-44.9
Chelsea	5.9	6.9	6.0	6.3	5.9	5.4	6.8	6.0	1.0	1.3	0.9	1.0	0.8	14.4
Everett	4.8	4.4	3.1	4.1	1.4	1.7	1.6	1.5	3.5	2.6	2.0	2.7	-34.1	15.6
Fall River	7.2	5.4	4.6	5.7	6.0	5.5	4.3	5.3	1.2	1.0	1.1	1.1	-35.2	-28.2
Fitchburg	6.2	7.7	3.1	5.7	4.1	3.3	3.5	3.6	1.5	2.3	0.9	1.6	-49.5	-13.4
Framingham	1.5	1.9	1.6	1.7	0.8	0.8	1.3	1.0	1.8	2.4	1.2	1.7	8.4	55.3
Holyoke	7.6	8.4	7.4	7.8	7.3	6.9	6.7	7.0	1.0	1.2	1.1	1.1	-3.0	-8.8
Lawrence	5.8	5.1	5.3	5.4	6.4	3.2	4.5	4.7	0.9	1.6	1.2	1.1	-7.4	-28.8
Leominster	2.4	1.4	1.3	1.7	1.4	1.2	0.7	1.1	1.8	1.2	1.8	1.6	-45.6	-47.6
Lowell	4.9	3.1	6.2	4.7	4.1	3.4	5.1	4.2	1.2	0.9	1.2	1.1	27.6	22.2
Lynn	7.4	6.8	5.2	6.5	4.8	5.2	4.8	5.0	1.5	1.3	1.1	1.3	-29.7	0.2
Malden	4.0	5.6	3.8	4.4	3.0	3.4	3.1	3.2	1.3	1.6	1.2	1.4	-5.5	4.6
Marlborough	3.1	5.1	1.6	3.3	2.3	2.5	1.1	2.0	1.3	2.0	1.5	1.7	-47.3	-51.8
New Bedford	8.9	4.6	7.9	7.1	5.2	6.0	6.3	5.9	1.7	0.8	1.2	1.2	-11.8	21.2
Newton	0.8	0.8	0.7	0.8	0.5	0.3	0.3	0.4	1.5	2.8	2.4	2.1	-9.6	-43.0
Quincy	3.0	2.6	2.5	2.7	2.6	2.3	2.4	2.4	1.2	1.1	1.1	1.1	-15.0	-8.1
Revere	7.2	7.1	7.3	7.2	4.4	4.7	4.8	4.6	1.6	1.5	1.5	1.6	0.8	8.6
Somerville	5.6	6.1	6.7	6.1	4.6	5.2	5.8	5.2	1.2	1.2	1.2	1.2	18.7	25.3
Springfield	7.9	7.5	8.1	7.9	6.4	7.0	7.0	6.8	1.2	1.1	1.2	1.2	2.4	9.3
Worcester	4.7	4.4	4.1	4.4	4.0	4.1	4.3	4.1	1.2	1.1	0.9	1.1	-13.5	9.1

**Table 9. High School Dropout Rates (annual)**

Select School Districts, AY 2006 through 2008

	LEP students				All students				LEP/All ratio				Change from 2006 to 2008 (%)	
	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	2005-06	2006-07	2007-08	Average	LEP	EP
Massachusetts	9.5	10.4	8.8	9.6	3.1	3.6	3.2	3.3	3.1	2.9	2.8	2.9	-7.4	3.2
District Average	8.0	9.3	9.3	8.9	5.4	5.9	5.7	5.7	1.6	1.5	1.8	1.6	17.0	6.2
Boston	14.1	12.4	8.3	11.6	9.4	8.4	7.5	8.4	1.5	1.5	1.1	1.4	-41.3	-20.6
Brockton	11.5	8.5	9.3	9.8	6.5	5.4	4.7	5.5	1.8	1.6	2.0	1.8	-19.1	-28.9
Brookline	2.6	0.0	0.0	0.9	1.2	0.8	0.7	0.9	2.1	0.0	0.0	0.9	-100.0	-38.6
Chelsea	10.2	12.9	15.3	12.8	8.1	7.4	9.3	8.3	1.3	1.7	1.7	1.5	50.5	14.5
Everett	5.0	7.5	20.0	10.8	3.5	3.8	4.8	4.0	1.4	2.0	4.2	2.7	302.9	38.7
Fall River	15.2	14.3	11.2	13.6	11.3	9.6	12.6	11.2	1.3	1.5	0.9	1.2	-26.0	11.4
Fitchburg	6.1	13.1	10.9	10.0	6.8	8.5	8.9	8.1	0.9	1.5	1.2	1.2	77.9	31.9
Framingham	4.1	0.0	0.0	1.4	2.5	2.3	2.9	2.6	1.6	0.0	0.0	0.5	-100.0	16.1
Holyoke	14.3	20.8	18.4	17.8	11.2	9.8	10.6	10.5	1.3	2.1	1.7	1.7	28.3	-5.8
Lawrence	12.7	15.3	16.6	14.8	9.7	14.7	12.1	12.2	1.3	1.0	1.4	1.2	31.0	23.9
Leominster	6.9	5.9	4.5	5.8	2.0	3.0	2.3	2.4	3.5	1.9	2.0	2.4	-34.1	16.1
Lowell	7.8	6.0	3.3	5.7	4.8	3.9	2.1	3.6	1.6	1.6	1.6	1.6	-57.6	-56.5
Lynn	7.0	7.5	8.2	7.5	5.0	5.1	5.4	5.2	1.4	1.5	1.5	1.5	17.2	6.5
Malden	4.7	5.6	6.6	5.6	4.4	5.4	5.1	4.9	1.1	1.0	1.3	1.1	40.0	16.4
Marlborough	5.7	5.5	3.1	4.8	1.9	2.0	0.9	1.6	3.0	2.7	3.5	3.0	-45.6	-52.7
New Bedford	9.8	7.6	9.7	9.0	7.3	8.3	8.1	7.9	1.3	0.9	1.2	1.1	-1.8	11.5
Newton	0.0	0.0	2.1	0.7	0.6	0.7	0.8	0.7	0.0	0.0	2.6	1.0	-	29.4
Quincy	2.6	2.6	8.0	4.4	2.8	3.5	3.0	3.1	0.9	0.7	2.7	1.4	203.1	7.3
Revere	11.2	16.4	18.9	15.5	5.5	7.1	5.9	6.1	2.0	2.3	3.2	2.5	69.3	6.3
Somerville	3.6	14.5	10.6	9.6	2.1	4.1	4.4	3.5	1.7	3.5	2.4	2.7	198.1	112.1
Springfield	11.8	16.0	13.5	13.8	7.9	10.4	9.3	9.2	1.5	1.5	1.5	1.5	15.0	17.4
Worcester	8.6	12.4	6.5	9.2	3.9	5.4	4.5	4.6	2.2	2.3	1.5	2.0	-23.4	16.8

Sources: Massachusetts Department of Elementary and Secondary Education

Note: The grade retention rate is the share of students required to repeat the grade in which they were enrolled during the previous academic year. The annual high school dropout rate is the share of students in grades 9-12 who drop out of school in any given year.

higher retention rates than English-proficient students. In Everett, LEP students were retained most frequently relative to English-speaking students: their grade retention rates were 2.7 times greater than EP students' rates. Only LEP students in Brockton were less likely to be retained in the same grade than English-proficient students in the same district.

As in Massachusetts, the districts' LEP grade retention rates followed an encouraging trend during this period. Between 2006 and 2008, they declined by 14 percent, compared with a 1-percent decrease in the rates of English-proficient pupils. In some districts, LEP retention rates declined at an even more impressive pace. In Fitchburg, Marlborough, and Leominster, for example, LEP rates in 2008 were nearly half as low as they were in 2006; in Brookline, the rate declined by 80 percent. Six districts, however, experienced increasing grade retention of LEP students. In Lowell and Somerville, LEP retention rates rose by 28 and 19 percent, respectively.

#### High School Dropout Rates

From 2006 to 2008, the average annual dropout rate of LEP high school students in these districts was 8.9 percent—slightly lower than the statewide average rate of 9.6 percent (see Table 9). Dropout rates were the highest in Holyoke, Lawrence, and Revere, in which at least 15 percent of LEP students, on average, dropped out during this period. LEP students in Brookline and Newton were least likely to drop out of high school.

English-proficient students in these districts dropped out at rates considerably higher than EP pupils in the Commonwealth as a whole. Thus, despite the fact that LEP students in the 22 districts still had higher dropout rates than EP students, these ratios were nearly half the state average ratios for the same period. On average, the districts' LEP students were 60 percent more likely to drop out than English-proficient students were; at the state level, they were 190 percent more likely. The LEP to EP dropout ratio was the highest in Marlborough, whose LEP students were three times more likely to drop out of high school compared with its English-proficient students. In contrast, in Framingham—which has the lowest LEP to EP dropout ratio—LEP pupils were only

half as likely to drop out of high school as their English-speaking peers.

And while statewide LEP dropout rates declined between 2006 and 2008, the average rates for the districts reviewed here actually rose by 17 percent in these three years. Still, this trend was far from uniform across districts, as dropout rates increased in twelve of the districts, but declined in the other ten. LEP dropout rates in Quincy, Somerville, and Everett experienced the steepest increases: In Quincy and Somerville, they tripled; in Everett, they actually quadrupled. At the same time, Framingham and Brookline saw their already low LEP dropout rates decline to zero by 2008. LEP students in Lowell also made great strides, cutting their dropout rate by 58 percent.

#### Academic Achievement

As in Massachusetts as a whole, LEP students in all of the school districts reviewed in this section—with the exception of Quincy—passed the MCAS tests at levels lower than their English-proficient peers. Nonetheless, a comparison of MCAS results across districts reveals disparate trends even within the same grade level. In some districts, the shares of LEP students scoring at or above Needs Improvement increased substantially between 2001 and 2008, narrowing the performance gap that separates them from English-proficient students. In others, LEP student performance remained fairly stable throughout this period. Yet other districts saw their performance deteriorate over time.

At the elementary school level, LEP fourth-graders in Quincy continuously outperformed their LEP peers in the other districts, excelling in both ELA and mathematics. Furthermore, they consistently attained a Needs Improvement score or higher at rates similar to their English-proficient classmates (see Appendix Figures 1-2). Their performance was particularly impressive in math, where they outperformed even English-proficient students in all years but 2002. LEP students in Brockton, Lowell, Lynn, and Framingham showed solid gains, though improvement in the latter three districts leveled off after 2004 (see Appendix Figures 3-10).

The performance of Worcester LEP fourth-graders—both absolute and relative to their English-proficient peers—trended slightly down-

ward throughout most of the period; in 2008, it trended back up but only for mathematics (see Appendix Figures 11-12). In Boston and Lawrence, LEP student shares at or above Needs Improvement followed a crude U-shaped trend, dipping near the middle of the period and rising in subsequent years (see Appendix Figures 13-16).

Meanwhile, in Springfield and Holyoke, LEP student performance followed the opposite pattern. Their shares scoring at or above Needs Improvement rose consistently up until 2004 and 2005, after which they declined to levels similar to—or even lower than—those in 2001. As English-proficient students' performance remained much more stable during this period, the gap in LEP and EP rates first narrowed but then widened again substantially (see Appendix Figures 17-20).

At the middle school level, in only four districts the number of students taking the Grade 7 ELA and Grade 8 math tests was large enough to include them in the analysis. Of these, only Lowell's LEP students demonstrated significant and sustained improvement between 2001 and 2008. For both math and ELA, the share of Lowell's LEP students performing at or above Needs Improvement increased during the first half of the period and then remained more or less stable at higher average levels. As growth in English-proficient students' shares at these levels was less pronounced, the gap in relative performance narrowed significantly up until 2004 and then stabilized (see Appendix Figures 21-22).

In contrast, Boston's LEP middle-school students saw their performance deteriorate steadily, especially after 2003 and 2004 (though their ELA results picked up in the last two years). Meanwhile, EP students continued to improve, resulting in significantly larger performance gaps near the end of the period (see Appendix Figures 23-24). And similarly to fourth-graders, Springfield's and Holyoke's middle-school students with limited English skills posted gains during the first half of the period, especially in ELA, after which their performance declined—both in absolute terms and in relation to English-proficient students (see Appendix Figures 25-28). Notably, in these two districts, the shares of LEP students scoring at or above Needs Improvement in Grade 8 Math remained very low during the entire period, rarely

exceeding 10 percent.

Finally, among high school students, LEP tenth-graders in Brockton and Lowell showed the most pronounced and sustained improvement (see Appendix Figures 29-32). In Lowell, the shares of LEP students at or above Needs Improvement stabilized after 2004 but remained at higher average levels. In both districts, the shares of LEP students at these levels grew substantially faster than the shares of English-proficient students, considerably shrinking the gaps in performance, as measured by the LEP to EP “at or above NI” ratios. In Boston, Springfield, and Worcester, English-proficient students performed at stable rates, while LEP tenth-graders followed a more erratic trend (see Appendix Figures 33-38). In neither district did the relative performance of LEP students improve.

### **Student Outcomes and Program Placement**

Aligning LEP students' school engagement and MCAS performance with their districts' English support programs reveals little connection. LEP students in districts with very similar program breakdowns often have very different engagement and academic outcomes. In Lowell and Holyoke, for instance, nearly all LEP students attend sheltered English classrooms. Nonetheless, while MCAS results improved substantially for LEP students in Lowell, in Holyoke they did not. Furthermore, LEP students in Holyoke were five times more likely to be suspended, 65 percent more likely to repeat a grade, and nearly three times more likely to drop out of high school compared with Lowell's limited English-proficient students.

In addition, districts with similar student outcomes often have very dissimilar English language learner programs. For example, the academic performance of LEP students improved significantly in Lowell, Quincy, and Framingham, while their suspension rates, grade retention rates, and dropout rates remained considerably lower than both the state and the districts' average rates. Yet these three districts take different approaches to educating LEP students. In Quincy and Lowell, virtually all LEP students are placed in sheltered English immersion. In Framingham, by contrast, only 42 percent are in SEI, while more than half attend bilingual education programs.

The lack of correlation between a district's program structure and its LEP students' performance adds to the difficulty of determining the superiority of one approach over another. Even if it existed, such correlation would not necessarily speak of the merits or disadvantages of particular models, given the large district variation that exists in the implementation and even the labeling of similar types of English support programs.

Overall, there is likely no one-size-fits-all approach that would serve all LEP students equally well.

What works in one district, school, or classroom may not necessarily be effective in another. As the Rennie Center (2007) notes, what model schools frequently have in common is flexibility in program design, availability of different types of programs to match varying student proficiency levels, a sustained commitment to the education of LEP students, and a keen attentiveness to their learning needs.<sup>52</sup> Two such schools—Brockton High School and Fuller Middle School—are profiled in more detail in the next section.

## VII. School Case Studies

The previous three sections presented an analysis of how LEP students' school engagement and academic achievement have fared relative to those of their English-proficient classmates over the past eight years: three years prior to the implementation of Question 2, and five years after. However, given the present data constraints and the variability in district- and school-level implementation of both the original TBE mandate and the amended Chapter 71A, these analyses do not determine the superiority of either instructional model in the Massachusetts context. To identify best practices in educating LEP students, it is best to pursue this inquiry at the school or even at the classroom level.

A 2007 report by the Rennie Center, a Cambridge-based education policy think tank, takes a comprehensive look at how three schools with large LEP populations are implementing the Question 2 mandate in different and creative ways: Brockton High School in Brockton, Fuller Middle School in Framingham, and Beebe Elementary School in Malden.<sup>53</sup> Rennie Center researchers selected the schools as exemplary based a detailed review of the districts and the schools that made the most consistent progress in moving their LEP students closer to English proficiency.

Through a wealth of field research—including classroom observations, document reviews, and interviews with school officials, teachers, and parents—researchers examined each school's approach and distilled key characteristics shared by the three schools that contributed to their success: a commitment to flexibility, rather than to one-size-fits-all approaches; positive attitudes toward immigrant students and families; highly-skilled and committed teachers; student support services extending beyond the classroom and continuing after students attain English proficiency; and finally, a continued attention to data, research, and best practices in educating LEP students.<sup>54</sup>

In this section of the report, we focus on two of the three schools profiled in the Rennie Center report: Brockton High School and Fuller Middle School. (Data constraints prevent us from analyzing student performance at Beebe Elementary School, which has a much smaller LEP enrollment.) We first present a short summary of each school's English language program structure, based on the Rennie Center's much more detailed descriptions. This summary is then followed by an analysis of the academic performance of LEP and English-proficient students that parallels the discussion presented in Section V.

## ◆ Brockton High School

### Background

With more than 4,300 students, Brockton High School is one of the largest high schools in the nation and the largest in New England. Situated in a town with one of the highest immigrant concentrations in the state, Brockton High's students are racially diverse and predominantly low-income. In 2009, the school had the state's second highest enrollment of non-native speakers: 1,433 students—more than one third of its total enrollment—spoke English as a second language. Students with limited English proficiency comprised 14 percent of its student body.<sup>55</sup> The vast majority of Brockton High's LEP students—70 percent—speak Cape Verdean Creole as their native language; 16 percent speak Haitian Creole.

Brockton High School's English support program for LEP students consists of three separate strands: transitional bilingual education (TBE), immersion, and literacy. Available in Spanish, Cape Verdean Creole, and Haitian, the TBE strand offers native-language content instruction in math, science, and social studies, though teachers often use English and the native language interchangeably. Depending on their level of English proficiency, students placed in the immersion strand can receive content instruction in general education classrooms, in sheltered classrooms, or in a combination of the two. In this strand, native languages are occasionally used to clarify complex concepts. The literacy strand, still relatively new, is intended for new students whose formal education has been interrupted and who read significantly below their age-appropriate grade level. This strand offers a separate, self-contained, full-time course of instruction in English, math, and science, as well as individual tutoring.<sup>56</sup>

All three strands are supplemented by content-based ESL classes that teach English using content from the general education curriculum. The school's ESL teachers work with general education teachers and with each other to develop and implement best practices for adapting mainstream classroom content to LEP students' needs. Finally, the school also offers an MCAS review course with two versions: one for general education students

and another for LEP students—specifically designed to help them develop exam-specific vocabulary and an understanding of the nature, structure, and scoring of the MCAS exams.<sup>57</sup>

The typical LEP student at Brockton High spends a year or two in TBE, followed by a year in the immersion strand. Based on their English proficiency, students then transition to general education either at once in all subjects or more gradually by combining mainstream and immersion classes. This transition process is facilitated through an ongoing collaboration between mainstream classroom teachers and teachers serving LEP students.<sup>58</sup>

Finally, Brockton High's support for LEP students and their families extends beyond the classroom. The school employs several bilingual/bicultural guidance counselors and ten bilingual parent liaisons. The counselors work with local organizations to provide “wrap-around services” for students and their families, such as mentoring programs and initiatives that raise immigrants' awareness of their legal rights. In addition, to notify parents of upcoming events and keep them informed of their children's attendance record, the school uses an automated telephone system that calls each family in the appropriate language.<sup>59</sup>

### Academic Performance

The story of Brockton High's LEP tenth-graders has been one of exceptional improvement. While its students with limited English skills performed at levels lower than their English-proficient peers in the Grade 10 ELA and math tests, over the past few years the school has been very successful at raising LEP students' achievement and narrowing the LEP/EP performance gap.

In 2002—the first academic year for which school-level data are available—the share of Brockton High's LEP students scoring at or above Needs Improvement was very low: Only a quarter attained at least that level in math, and just over a third did in ELA. By 2008, that share had nearly doubled to

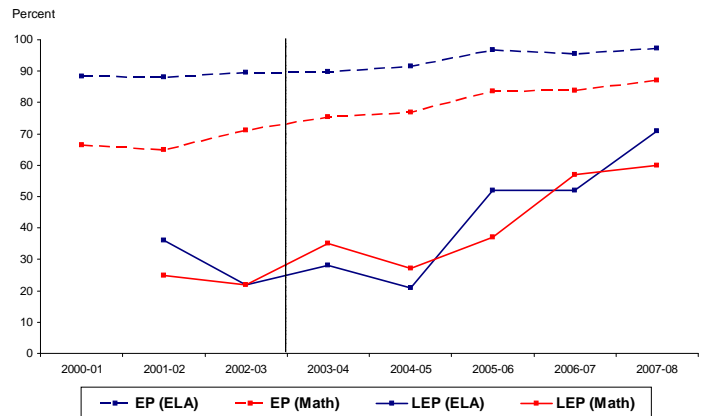
71 percent for math, and had risen 1.4 times to 60 percent for ELA—with most of the growth occurring after academic year 2004-05 (see Figure 22).

Meanwhile, the share of Brockton High’s English-proficient students performing at least at the Needs Improvement level grew at a slower pace. Between 2002 and 2008, the share for math increased by only 10 percent; for ELA—by one third. Thus, LEP students’ performance relative to their English-proficient peers improved substantially. The ratio of LEP to EP “at or above NI” shares rose by more than three quarters in both math and English Language Arts. In 2002, the shares of LEP tenth-graders passing either test at or above Needs Improvement were only 40 percent as high as the shares of English-proficient students at the same levels; by 2008, this proportion had risen to 69 percent for math and 73 percent for ELA (see Figure 23).

In Massachusetts as a whole, LEP tenth-graders began the period with higher MCAS results than Brockton High’s LEP students (see Figure 19). However, statewide progress, while significant, was not nearly as impressive as that of Brockton High. The statewide share of LEP students scoring at or above Needs Improvement grew by 77 percent in ELA, compared with 97 percent for Brockton High; and by 47 percent in math, compared with 140 percent for the school. And while the LEP/EP performance gaps narrowed both for the state and for Brockton High, Brockton’s faster progress helped it catch up to the state level (see Figure 23). In other words, at Brockton High, English-proficient students used to “outpass” their LEP peers at a much higher rate compared with the state average. By 2008, the state’s and the school’s ratios of LEP to EP “at or above NI” shares practically equalized.

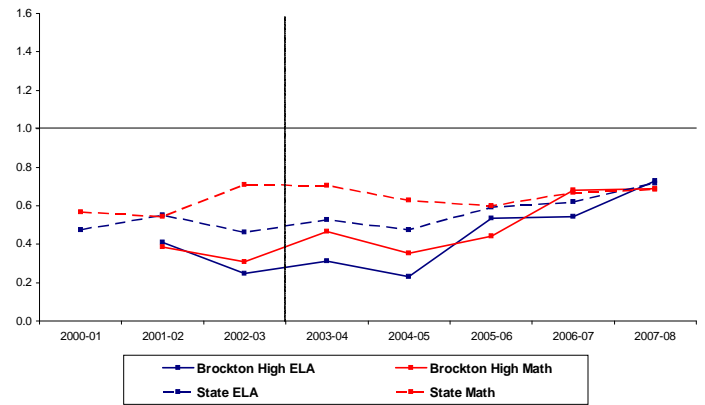
The impressive improvement of Brockton High’s LEP students’ academic performance did not extend to the rest of its student body. English-proficient students performed at about the same level as their peers in the state in both English and math—a pattern that barely changed throughout this period (see Figure 24).

**Figure 22. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students Scoring at or above Needs Improvement, Brockton High School**



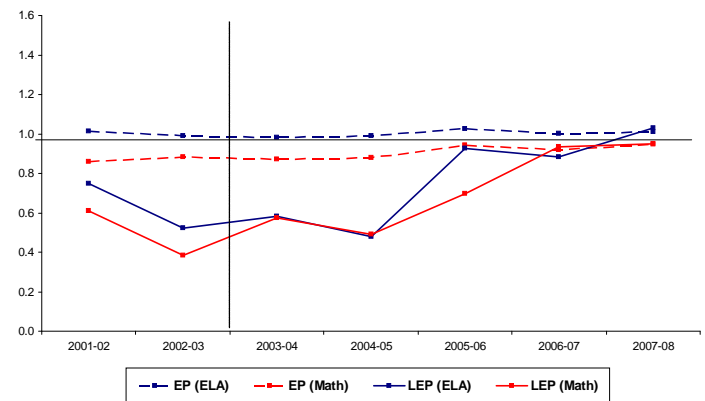
Source: Massachusetts Department of Elementary and Secondary Education

**Figure 23. 10<sup>th</sup> Grade MCAS Shares of Students at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Brockton High School and State Averages**



Source: Massachusetts Department of Elementary and Secondary Education

**Figure 24. 10<sup>th</sup> Grade MCAS Shares of Students at or above Needs Improvement: Ratios of Brockton High Shares to State Average Shares for LEP Students and English-Proficient Students**



Source: Massachusetts Department of Elementary and Secondary Education

## ◆ Fuller Middle School

### Background

One of Framingham’s three middle schools, Fuller Middle School educates about 500 students in grades six to eight. Its student population is racially and ethnically mixed, and more likely to be low-income compared with the district as a whole: 45 percent of its students are eligible for free or reduced price lunch, compared with a district average of 27 percent. Similarly to Brockton High, Fuller Middle School has a sizeable population of non-native English speakers. Over half of its students in 2009 spoke English as a second language, and 30 percent had limited English proficiency.<sup>60</sup> The most common primary language is Portuguese, spoken by 52 percent of Fuller’s LEP students; another 37 percent speak Spanish.

The education of LEP students at Fuller is assigned a very high priority and given serious consideration. As the Rennie Center report notes, it serves as “a hallmark of Fuller’s drive for excellence,” and greatly benefits from the Framingham district’s committed leadership on the issue. Framingham has designed a district-wide approach to educating its LEP students—one characterized by flexibility and efficiency. To provide LEP students with more options, schools in the district specialize in different approaches to English language support; Fuller is the district’s “lab for new approaches.”<sup>61</sup>

Fuller Middle School has a hybrid ESL/Bilingual/Sheltered English program divided into five stages: ESL 1-2 through ESL 5. The initial level offers native-language instruction of math, science, and social studies, with everything else in sheltered English. Based on comprehensive assessments of their English skills, students progress through the rest of the levels receiving content instruction in both sheltered English and regular English. The final level, ESL 5, offers all regular classes in English. Students at this level take one sheltered English support class, designed to meet their learning needs in research, writing, and academic vocabulary as they transition fully to mainstream classroom education.<sup>62</sup>

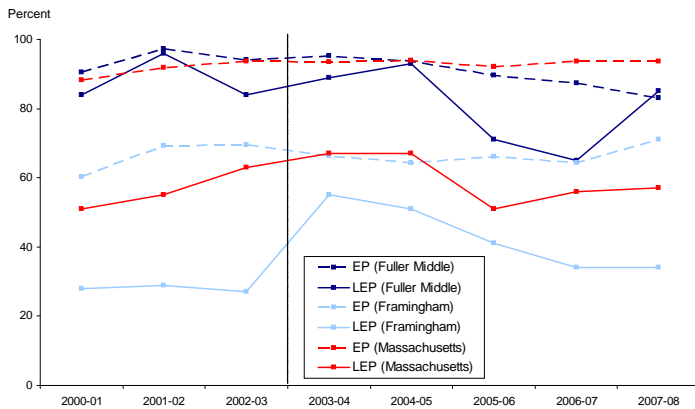
Fuller’s approach is also marked by a carefully designed strategy for teacher professional development. The Rennie Center reports that, unlike most other schools, Fuller’s teacher training takes place in-house and relies heavily on the expertise of senior faculty and staff. For example, the classroom of the school’s ESL Resource Specialist doubles up as a lab for teachers to observe Sheltered English methods in practice. In addition, both regular and Sheltered English teachers work with literacy specialists in the school’s Teaching and Learning Literacy (TALL) initiative to improve school-wide language and literacy. In this effort, senior teachers mentor younger colleagues and demonstrate lessons and teaching practices in model lab classrooms.<sup>63</sup>

Fuller Middle School’s approach to educating LEP students is in large part a community endeavor. Trilingual counselors, community-based service providers, graduate interns, and volunteer tutors collaborate to offer students continuous and wide-ranging support. Fuller also hosts an adult ESL program attended by many immigrant parents. Finally, it keeps families engaged through a series of evening events as well as new parent orientations—which, to increase access and inclusivity, offer both transportation and translation services.<sup>64</sup>

### Academic Performance

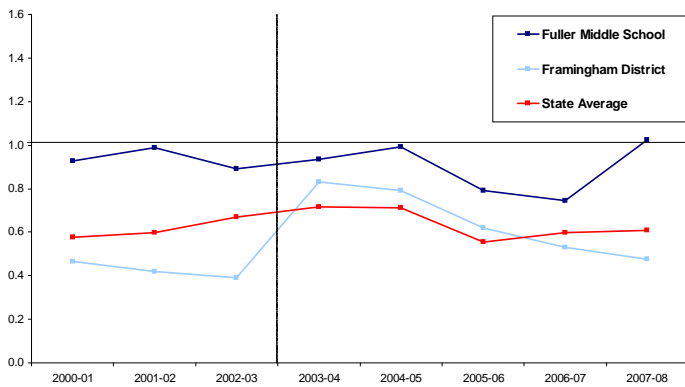
The academic performance of Fuller’s limited English-proficient students is marked by continued excellence. Results from the Grade 7 ELA exam reveal that, in recent years, the shares of LEP students at or above Needs Improvement were similar to or slightly below those of English-proficient students—a pattern unusual for the Framingham school district and for the state as a whole (see Figures 25). In both the district and the Commonwealth, the shares of LEP students performing at these levels were consistently lower than they were for their English-speaking peers.

**Figure 25. 7<sup>th</sup> Grade ELA MCAS: Shares of LEP Students and English-Proficient Students Scoring at or above Needs Improvement, Fuller Middle School, Framingham School District, and State Averages**



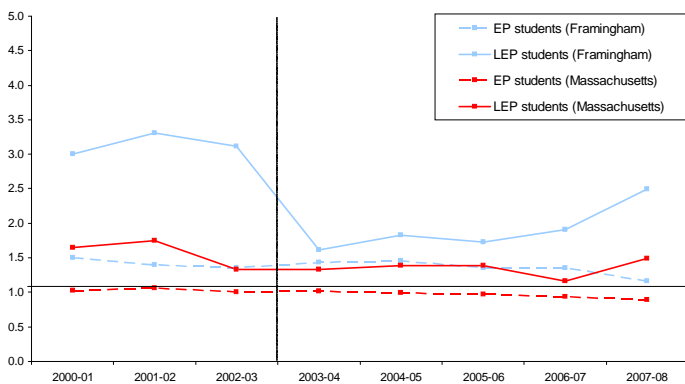
Source: Massachusetts Department of Elementary and Secondary Education

**Figure 26. 7<sup>th</sup> Grade ELA MCAS Shares of Students at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Fuller Middle School, Framingham School District, and State Averages**



Source: Massachusetts Department of Elementary and Secondary Education

**Figure 27. 7<sup>th</sup> Grade ELA MCAS Shares of Students at or above Needs Improvement: Ratios of Fuller Middle School Shares to District Average and State Average Shares for LEP Students and English-Proficient Students**

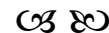


Source: Massachusetts Department of Elementary and Secondary Education

Between 2001 and 2008, the performance of both LEP and English-proficient students at Fuller followed a slightly downward pattern (see Figure 25). Despite the fact that most of the decline occurred after academic year 2004, it is unlikely that Question 2 was a contributing factor. The trend was present for both proficiency groups, and while English-proficient students' "at or above NI" shares fell consistently during this period, the corresponding shares of LEP students actually bounced back in 2005 and again in 2008.

Overall, in 2008, LEP students performed at or above Needs Improvement at virtually the same rate as in 2001; EP students' rates, on the other hand, declined by 8 percent. The ratio of LEP to EP student "at or above NI" rates—typically around one at Fuller Middle—dipped in 2006 and 2007. However, in 2008, this ratio not only rose again, but in that year LEP students actually performed better than their English-proficient classmates (see Figure 26). Statewide, the ratio of LEP to EP "at or above NI" shares changed little and remained well below Fuller's levels. For the Framingham school district, the gap in the relative performance of LEP and EP students narrowed towards the middle of the period, but then widened back to its original level.

Finally, attesting to the fact that Fuller's English support programs are making a difference, Fuller's LEP students consistently outperformed their LEP peers in the Framingham district and in the state as a whole, often by large margins (see Figure 27). On average, the share of Fuller's LEP students scoring at or above Needs Improvement was 44 percent higher than the statewide LEP share, and more than two times the district's average LEP share. Meanwhile, English-proficient students at the school performed at about the same level as their peers in the state and better than their peers in the district (though the gap was smaller than for LEP students).



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- <sup>1</sup> Rennie Center for Education Research & Policy. (2007). *Seeking Effective Policies and Practices for English Language Learners*. Cambridge, MA: Rennie Center For Education Research & Policy, p. 19.
- <sup>2</sup> Rennie Center for Education Research & Policy. (2007). *Seeking Effective Policies and Practices for English Language Learners*. Cambridge, MA: Rennie Center For Education Research & Policy.
- <sup>3</sup> Tung, R., Uriarte, M., et al. (April 2009). *English Learners in Boston Public Schools: Enrollment, Engagement and Academic Outcomes, AY2003-AY2006 (Final Report)*. Boston, MA: Gaston Institute, University of Massachusetts Boston, p. 20.
- <sup>4</sup> *Ibid*, p. 20.
- <sup>5</sup> DeJong, E., Gort, M., and Cobb, C. (2005). "Bilingual Education within the Context of English-only Policies: Three Districts' Responses to Question 2 in Massachusetts." *Educational Policy*, 19(4): 595–620, p. 597.
- <sup>6</sup> Rossell, C. (June 2006). "Implementing Sheltered English Immersion in Massachusetts." *Rennie Center E-forum: Implementing Policy for English Language Learners*. Cambridge, MA: Rennie Center for Education Research and Policy.
- <sup>7</sup> Commonwealth of Massachusetts. 1994. *Striving for Success: The Education of Bilingual Pupils*. A Report of the Bilingual Education Commission. Malden, MA: Department of Education., p. 2.
- <sup>8</sup> Porter, R. P. (March 2001). Written Testimony before the Subcommittee on Education Reform of the House Committee on Education and the Workforce. Washington, DC.
- <sup>9</sup> Tung et al., pp. 29 and 38.
- <sup>10</sup> DeJong et al., p, 598.
- <sup>11</sup> Capetillo-Ponce, Jorge. (2004/2005). "Challenges to Multiculturalism." *New England Journal of Public Policy*. Fall 2004/Winter 2005, Vol. 20, Issue 1, p. 139-147
- <sup>12</sup> *Ibid*, pp. 142.
- <sup>13</sup> *Ibid*, pp. 142-143.
- <sup>14</sup> Tung et al., p. 21
- <sup>15</sup> Massachusetts Department of Education. (2003). *Questions and Answers regarding Chapter 71a: English Language Education in Public Schools*, p. 2.
- <sup>16</sup> Rivera, L. (April 2002). "A Review of the Literature on Bilingual Education." *Latinos in Massachusetts: Education*. Boston, MA: Gaston Institute, University of Massachusetts Boston., pp. 3-5.
- <sup>17</sup> Rennie Center, p. 3
- <sup>18</sup> *Ibid*, p.3
- <sup>19</sup> Massachusetts Department of Education (2003), p. 8
- <sup>20</sup> *Ibid*, p. 20.
- <sup>21</sup> *Ibid*, p. 11.
- <sup>22</sup> Massachusetts Department of Elementary and Secondary Education. (2009). MEPA (Massachusetts English Proficiency Assessment): Background. URL: <http://www.doe.mass.edu/mcas/mepa/>
- <sup>23</sup> Downes, T., Zabel J., and Ansel D. (May 2009). *Incomplete Grade: Massachusetts Education Reform at 15*. Boston, MA: MassINC, p. 25.
- <sup>24</sup> Massachusetts Department of Elementary and Secondary Education. (2009). *Requirements for the Participation of Students with Limited English Proficiency in MCAS and MEPA: Spring 2009*.
- <sup>25</sup> Massachusetts Department of Education (2003), pp. 11-12.
- <sup>26</sup> Rennie Center, p. 2.
- <sup>27</sup> DeJong et al., p. 615.
- <sup>28</sup> *Ibid*, pp. 610-612.
- <sup>29</sup> *Ibid*, pp. 610-612.
- <sup>30</sup> *Ibid*, pp. 610-612.
- <sup>31</sup> Tung et al., p. 36.
- <sup>32</sup> *Ibid*, p. 37
- <sup>33</sup> *Ibid*, p. 38
- <sup>34</sup> *Ibid*, p. 40.
- <sup>35</sup> Citizen Commission on Academic Success for Boston Children. (June 2006). *Transforming the Boston Public Schools: A Roadmap for the New Superintendent*, p. 67.
- <sup>36</sup> *Ibid*, p. 66.
- <sup>37</sup> Tung et al., p. 40.
- <sup>38</sup> Citizen Commission (2006), p. 69.
- <sup>39</sup> Tung et al., p. 41.
- <sup>40</sup> *Ibid*, pp. 40-42.
- <sup>41</sup> *Ibid*, p. 8.

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- <sup>42</sup> Massachusetts Department of Elementary and Secondary Education. (January 2008). *Preliminary Report on Current Fiscal Conditions in Massachusetts School Districts*, pp. 1, and O'Donnell, Robert. (September 2007). "Current Trends in School Finance." *Education Research Brief*, Issue 1. Massachusetts Department of Elementary and Secondary Education, Office of Strategic Planning, Research, and Evaluation, p. 6.
- <sup>43</sup> Based on data from the Massachusetts Department of Elementary and Secondary Education.
- <sup>44</sup> Downes et al., p. 6.
- <sup>45</sup> Massachusetts Department of Elementary and Secondary Education. (May 2009). *Commissioner's Report to the Legislature: English Language Acquisition and Professional Development*, p. 1.
- <sup>46</sup> Author's calculations based on data from the 2007 American Community Survey and the 1990 and 2000 Decennial Censuses of Population and Housing.
- <sup>47</sup> Massachusetts Department of Elementary and Secondary Education. (2009). *Annual Dropout Rate vs. Cohort Graduation Rate*. <http://www.doe.mass.edu/infoservices/reports/gradrates/dropoutvsgrad.html>
- <sup>48</sup> Downes et al., p. 14.
- <sup>49</sup> *Ibid*, pp. 5-7.
- <sup>50</sup> Beals, R. E. and Porter, R. P. (Fall 2000). "Bilingual Students and the MCAS." *READ Perspectives*. VII: 117-133, p. 125.
- <sup>51</sup> Massachusetts Department of Elementary and Secondary Education. (May 2009). *Commissioner's Report to the Legislature: English Language Acquisition and Professional Development*, p. 5.
- <sup>52</sup> Rennie Center, p. 19.
- <sup>53</sup> Rennie Center for Education Research & Policy. (2007). *Seeking Effective Policies and Practices for English Language Learners*. Cambridge, MA: Rennie Center For Education Research & Policy.
- <sup>54</sup> Rennie Center, p.19.
- <sup>55</sup> Massachusetts Department of Elementary and Secondary Education, 2008-09 Selected Populations Report.
- <sup>56</sup> Rennie Center, pp. 10-11.
- <sup>57</sup> *Ibid*, p. 10.
- <sup>58</sup> *Ibid*, pp. 9-10.
- <sup>59</sup> *Ibid*, p. 11.
- <sup>60</sup> Massachusetts Department of Elementary and Secondary Education, 2008-09 Selected Populations Report.
- <sup>61</sup> Rennie Center, p. 12.
- <sup>62</sup> *Ibid*, pp. 12-13.
- <sup>63</sup> *Ibid*, p. 14.
- <sup>64</sup> *Ibid*, p. 14

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## Bibliography

- Beals, R. E. and Porter, R. P. (Fall 2000). "Bilingual Students and the MCAS." *READ Perspectives*. VII: 117-133.
- Capetillo-Ponce, Jorge. (2004/2005). "Challenges to Multiculturalism." *New England Journal of Public Policy*. Fall 2004/Winter 2005, 20(1): 139-147.
- The Citizen Commission on Academic Success for Boston Children. (June 2006). *Transforming the Boston Public Schools: A Roadmap for the New Superintendent*.
- Commonwealth of Massachusetts. (1994). *Striving for Success: The Education of Bilingual Pupils*. A Report of the Bilingual Education Commission. Malden, MA: Department of Education.
- DeJong, E., Gort, M., and Cobb, C. (2005). "Bilingual Education within the Context of English-only Policies: Three Districts' Responses to Question 2 in Massachusetts." *Educational Policy*, 19(4): 595–620.
- Downes, T., Zabel J., and Ansel D. (May 2009). *Incomplete Grade: Massachusetts Education Reform at 15*. Boston, MA: MassINC.
- Massachusetts Department of Education. (2003). *Questions and Answers regarding Chapter 71A: English Language Education in Public Schools*. URL: [www.doe.mass.edu/ell/chapter71A\\_faq.pdf](http://www.doe.mass.edu/ell/chapter71A_faq.pdf)
- Massachusetts Department of Elementary and Secondary Education. (2009). *Requirements for the Participation of Students with Limited English Proficiency in MCAS and MEPA: Spring 2009 Update*. URL: [www.doe.mass.edu/mcas/participation/lep.doc](http://www.doe.mass.edu/mcas/participation/lep.doc)
- Massachusetts Department of Elementary and Secondary Education. (2009). *MEPA (Massachusetts English Proficiency Assessment): Background*. URL: <http://www.doe.mass.edu/mcas/mepa/>
- Massachusetts Department of Elementary and Secondary Education. (May 2009). *Commissioner's Report to the Legislature: English Language Acquisition and Professional Development*. URL: [www.doe.mass.edu/research/reports/0509elapd.doc](http://www.doe.mass.edu/research/reports/0509elapd.doc)
- Massachusetts Department of Elementary and Secondary Education. (January 2008). *Preliminary Report on Current Fiscal Conditions in Massachusetts School Districts*. URL: [www.doemass.org/research/reports/0108fiscalconditions.pdf](http://www.doemass.org/research/reports/0108fiscalconditions.pdf)
- O'Donnell, Robert. (September 2007). "Current Trends in School Finance." *Education Research Brief*, Issue 1. Massachusetts Department of Elementary and Secondary Education, Office of Strategic Planning, Research, and Evaluation. URL: <http://www.doe.mass.edu/research/reports/0907finance.pdf>
- Porter, R. P. (March 2001). Written Testimony before the Subcommittee on Education Reform of the House Committee on Education and the Workforce. Washington, DC. URL: <http://republicans.edlabor.house.gov/archive/hearings/107th/edr/account3801/porter.htm>
- Rennie Center for Education Research & Policy. (2007). *Seeking Effective Policies and Practices for English Language Learners*. Cambridge, MA: Rennie Center For Education Research & Policy. URL: [www.renniecenter.org/research\\_docs/EIJReport-final.pdf](http://www.renniecenter.org/research_docs/EIJReport-final.pdf)

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Rivera, L. (April 2002). "A Review of the Literature on Bilingual Education." *Latinos in Massachusetts: Education*. Boston, MA: Gaston Institute, University of Massachusetts Boston.

Rossell, C. (June 2006). "Implementing Sheltered English Immersion in Massachusetts." *Rennie Center E-forum: Implementing Policy for English Language Learners*. Cambridge, MA: Rennie Center for Education Research and Policy. URL: <http://www.renniecenter.org/june-e-forum-web.html>

Tung, R., Uriarte, M., et al. (April 2009). *English Learners in Boston Public Schools: Enrollment, Engagement and Academic Outcomes, AY2003-AY2006 (Final Report)*. Boston, MA: Gaston Institute, University of Massachusetts Boston.

**Appendix Table 1. Shares of LEP Students and English-Proficient Students Scoring at or above Needs Improvement in the 2008 MCAS exams**  
All Reporting School Districts

District	4 grade ELA		
	LEP	EP	LEP/EP ratio
Massachusetts	59	89	0.67
Shrewsbury	100	97	1.03
Stoughton	100	92	1.08
Arlington	96	95	1.01
Norwood	87	90	0.97
Randolph	85	74	1.16
Amherst	84	90	0.93
Lexington	84	97	0.86
Westfield	84	86	0.98
Quincy	80	83	0.96
Peabody	78	86	0.90
Hudson	75	89	0.84
Leominster	75	87	0.86
Medford	75	81	0.92
Westborough	73	93	0.78
Attleboro	72	90	0.80
Newton	72	96	0.75
Woburn	72	92	0.79
Brookline	70	93	0.75
Framingham	69	90	0.77
Lynn	67	81	0.82
Taunton	67	87	0.77
Dedham	65	92	0.71
Revere	65	90	0.72
Chicopee	64	82	0.78
Fitchburg	64	83	0.77
Somerville	64	81	0.79
Brockton	61	84	0.73
Clinton	61	90	0.68
Methuen	61	88	0.70
Barnstable	60	91	0.66
Marlborough	60	89	0.67
West Springfield	60	94	0.64
Lowell	58	74	0.78
Watertown	58	90	0.64
Chelsea	57	89	0.64
Fall River	56	74	0.76
Boston	55	79	0.70
Malden	53	82	0.65
Everett	51	80	0.63
New Bedford	51	86	0.59
Pittsfield	50	85	0.59
Worcester	50	79	0.64
Lawrence	49	78	0.63
Salem	45	80	0.56
Waltham	44	86	0.51
Springfield	43	77	0.56
Haverhill	27	78	0.35
Holyoke	19	62	0.31

District	4 grade Math		
	LEP	EP	LEP/EP ratio
Massachusetts	64	89	0.72
Stoughton	100	93	1.08
Lexington	95	96	0.99
Quincy	94	89	1.05
Arlington	91	98	0.93
Woburn	91	91	1.00
West Springfield	90	91	0.99
Norwood	87	91	0.96
Peabody	87	91	0.96
Westfield	85	87	0.97
Attleboro	84	90	0.93
Newton	84	96	0.88
Shrewsbury	84	97	0.87
Watertown	83	93	0.89
Westborough	83	95	0.87
Brookline	81	95	0.86
Methuen	81	86	0.94
Amherst	80	89	0.89
Barnstable	80	92	0.87
Randolph	78	80	0.98
Chelsea	77	86	0.90
Medford	75	85	0.89
Taunton	73	86	0.84
Leominster	70	84	0.84
Lynn	70	83	0.85
Malden	70	81	0.86
Brockton	69	82	0.84
Boston	68	77	0.88
Clinton	68	91	0.75
Hudson	67	94	0.71
Everett	66	81	0.81
Framingham	66	90	0.73
Dedham	65	92	0.71
Marlborough	65	88	0.74
Chicopee	64	86	0.74
Lowell	63	74	0.85
Fitchburg	62	84	0.74
Revere	61	89	0.68
Somerville	58	82	0.71
Waltham	57	89	0.64
Worcester	57	77	0.74
Lawrence	56	77	0.73
Fall River	50	79	0.63
Pittsfield	50	87	0.57
New Bedford	49	81	0.60
Springfield	49	78	0.63
Salem	44	85	0.52
Haverhill	30	81	0.37
Holyoke	23	59	0.39

Source: Massachusetts Department of Elementary and Secondary Education

**Appendix Table 1 (continued). Shares of LEP Students and English-Proficient Students Scoring at or above Needs Improvement in the 2008 MCAS exams**  
All Reporting School Districts

District	7 grade ELA		
	LEP	EP	LEP/EP ratio
Massachusetts	57	94	0.61
Newton	97	98	0.99
Framingham	83	92	0.90
Westfield	82	92	0.89
West Springfield	78	89	0.88
Randolph	73	91	0.80
Lowell	72	89	0.81
Acton-Boxborough	71	99	0.72
Leominster	70	92	0.76
Malden	70	93	0.75
Attleboro	68	94	0.73
Fitchburg	67	92	0.73
Quincy	66	94	0.70
Haverhill	65	92	0.70
Watertown	64	97	0.66
Methuen	62	92	0.67
Fall River	60	88	0.68
Everett	58	90	0.64
Marlborough	58	94	0.62
Lynn	57	87	0.65
Pittsfield	55	90	0.61
Lawrence	54	85	0.63
Peabody	54	96	0.56
Barnstable	50	93	0.54
Revere	50	92	0.54
Waltham	50	96	0.52
Brockton	49	88	0.56
New Bedford	48	82	0.59
Boston	47	86	0.55
Somerville	46	91	0.51
Worcester	43	86	0.50
Salem	39	92	0.43
Chelsea	37	87	0.43
Springfield	33	80	0.41
Holyoke	27	81	0.33
Chicopee	15	89	0.17

District	8 grade Math		
	LEP	EP	LEP/EP ratio
Massachusetts	29	78	0.37
Quincy	96	76	1.26
Newton	81	92	0.88
Brookline	71	93	0.76
Framingham	56	78	0.72
Randolph	47	70	0.67
West Springfield	41	70	0.59
Brockton	39	64	0.61
Lowell	37	65	0.57
Milford	36	74	0.49
Fitchburg	35	64	0.55
Leominster	35	78	0.45
New Bedford	31	52	0.59
Gardner	30	73	0.41
Everett	29	68	0.42
Fall River	27	59	0.46
Methuen	27	68	0.39
Boston	26	64	0.41
Somerville	26	67	0.39
Malden	24	69	0.35
Waltham	24	79	0.30
Lynn	22	64	0.34
Marlborough	21	72	0.29
Pittsfield	19	70	0.27
Haverhill	18	70	0.26
Medford	18	76	0.24
Revere	18	72	0.25
Worcester	16	57	0.28
Chicopee	15	58	0.26
Lawrence	15	48	0.31
Woburn	15	78	0.19
Salem	12	64	0.19
Holyoke	8	55	0.15
Springfield	7	42	0.17
Chelsea	4	54	0.07

Source: Massachusetts Department of Elementary and Secondary Education

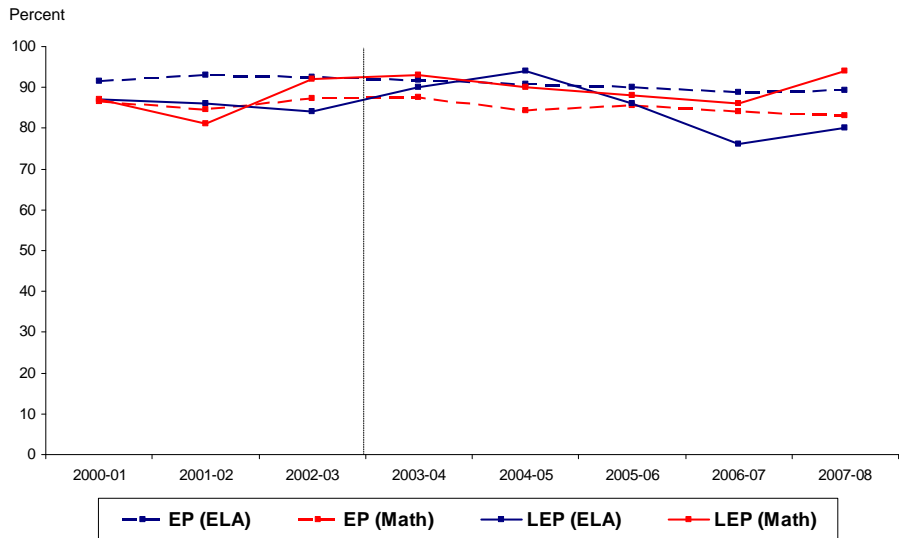
**Appendix Table 1 (continued). Shares of LEP Students and English-Proficient Students Scoring at or above Needs Improvement in the 2008 MCAS exams**  
All Reporting School Districts

District	10 grade ELA		
	LEP	EP	LEP/EP ratio
Massachusetts	69	96	0.72
Newton	100	98	1.02
Fitchburg	85	93	0.91
Pittsfield	85	94	0.90
Randolph	81	92	0.88
Framingham	79	97	0.81
Cambridge	77	96	0.80
Lowell	77	94	0.82
Barnstable	73	98	0.75
Salem	73	95	0.77
Watertown	72	98	0.74
Brockton	71	96	0.74
Lynn	71	93	0.76
Chelsea	69	94	0.74
Malden	68	95	0.71
Boston	67	94	0.71
Woburn	67	97	0.69
Leominster	66	96	0.69
Fall River	65	90	0.72
Quincy	64	96	0.66
Waltham	64	99	0.65
Worcester	64	93	0.69
Everett	63	96	0.66
New Bedford	58	90	0.64
Springfield	58	89	0.65
Medford	56	97	0.58
Revere	56	95	0.59
Lawrence	52	87	0.60
Holyoke	50	89	0.56
Haverhill	47	95	0.49
West Springfield	46	92	0.50
Somerville	43	97	0.44

District	10 grade Math		
	LEP	EP	LEP/EP ratio
Massachusetts	63	92	0.68
Randolph	100	82	1.23
Newton	96	98	0.98
Fitchburg	92	88	1.05
Brookline	91	96	0.95
Framingham	89	95	0.94
Quincy	88	91	0.96
Malden	87	87	1.00
Cambridge	85	93	0.91
Revere	78	90	0.86
Pittsfield	75	89	0.84
Barnstable	72	92	0.79
Watertown	70	96	0.73
Boston	68	87	0.79
Lynn	68	87	0.78
Lowell	66	87	0.76
Waltham	64	89	0.72
Medford	62	92	0.68
Leominster	61	91	0.67
Brockton	60	85	0.71
Fall River	60	79	0.76
West Springfield	57	88	0.65
Everett	53	84	0.63
Somerville	51	87	0.59
Springfield	50	74	0.67
Chelsea	46	76	0.60
Worcester	46	84	0.55
Woburn	45	95	0.47
Haverhill	42	87	0.48
Salem	42	87	0.48
Methuen	40	87	0.46
New Bedford	39	78	0.50
Lawrence	33	67	0.49
Holyoke	24	77	0.31

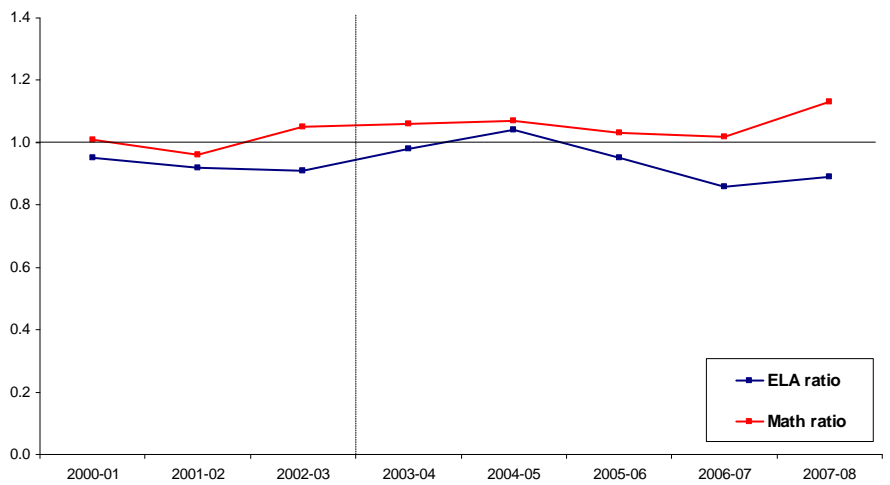
Source: Massachusetts Department of Elementary and Secondary Education

**Appendix Figure 1. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Quincy School District**



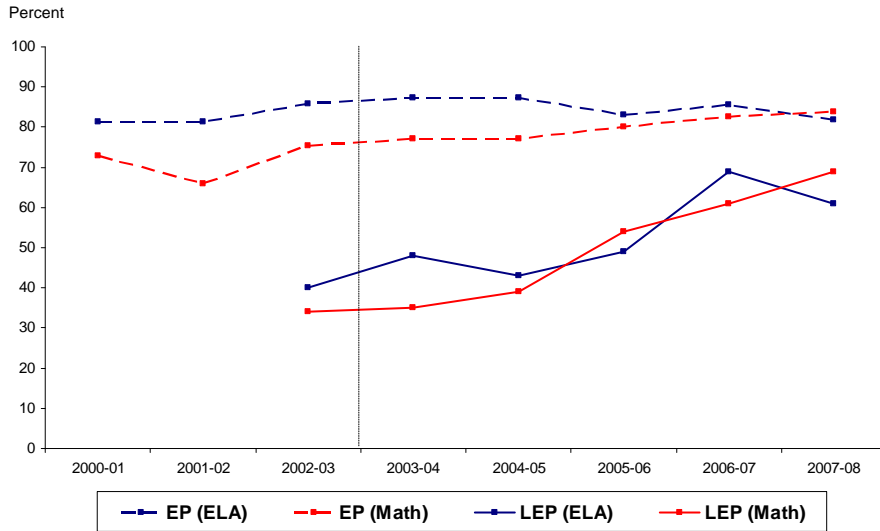
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 2. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Quincy School District**



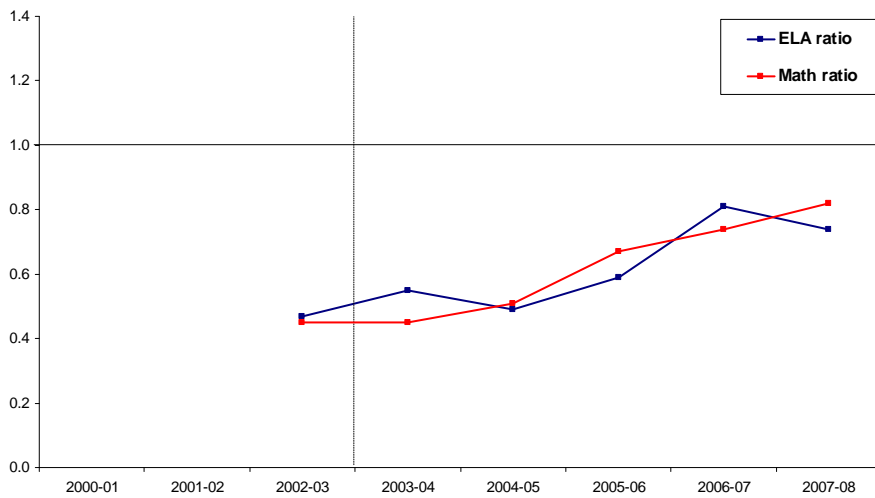
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 3. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Brockton School District**



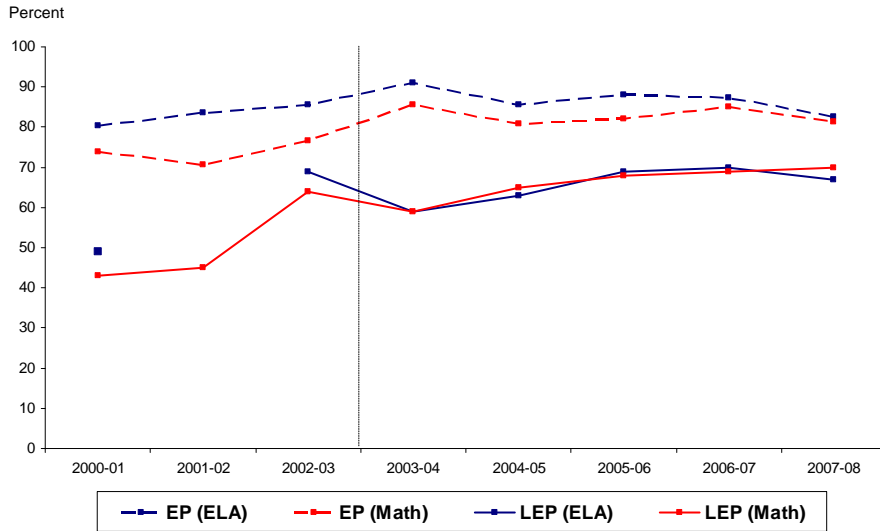
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 4. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Brockton School District**



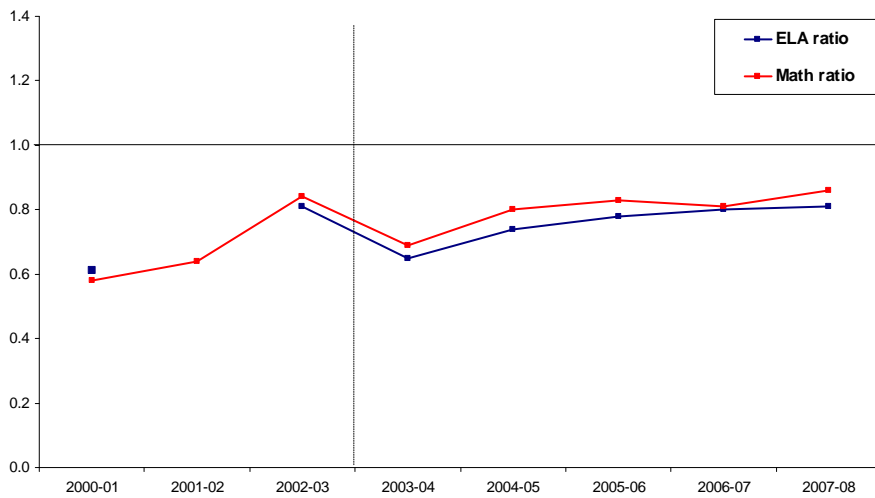
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 5. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Lynn School District**



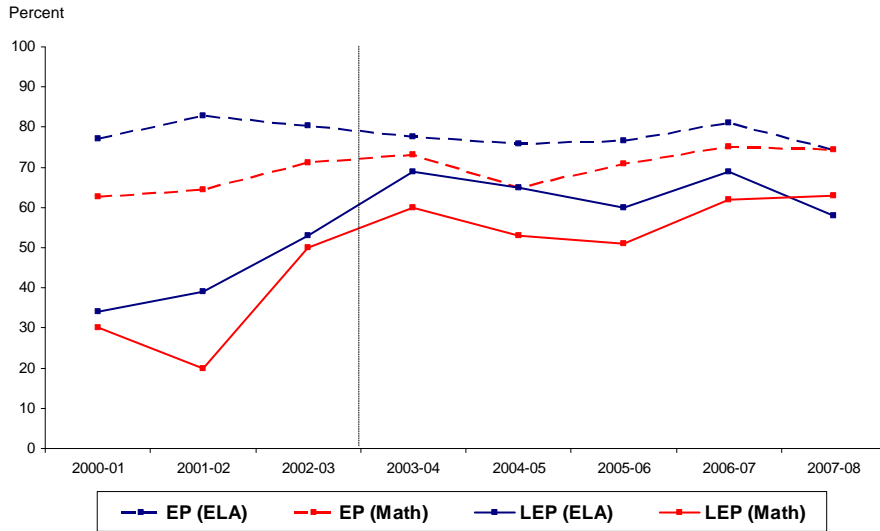
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 6. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Lynn School District**



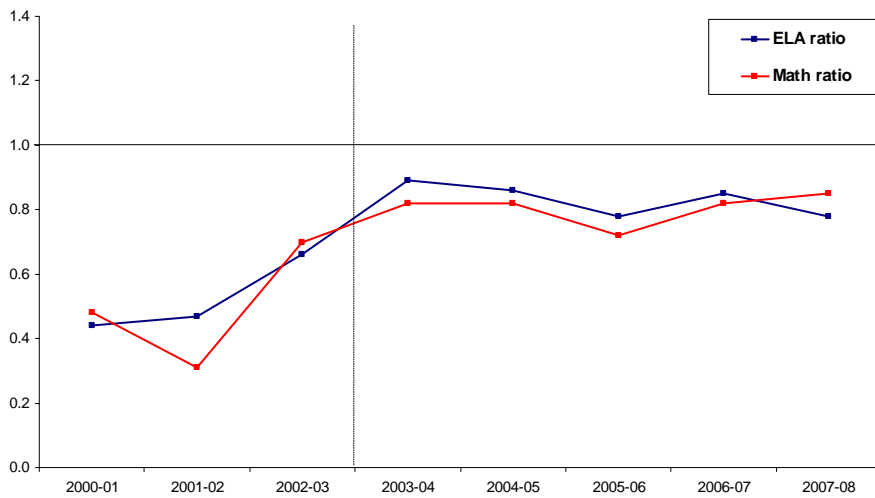
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 7. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Lowell School District**



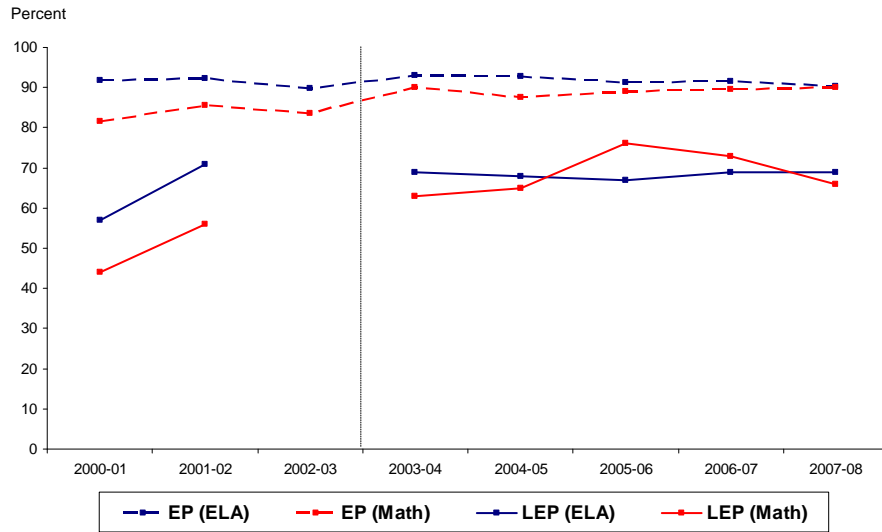
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 8. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Lowell School District**



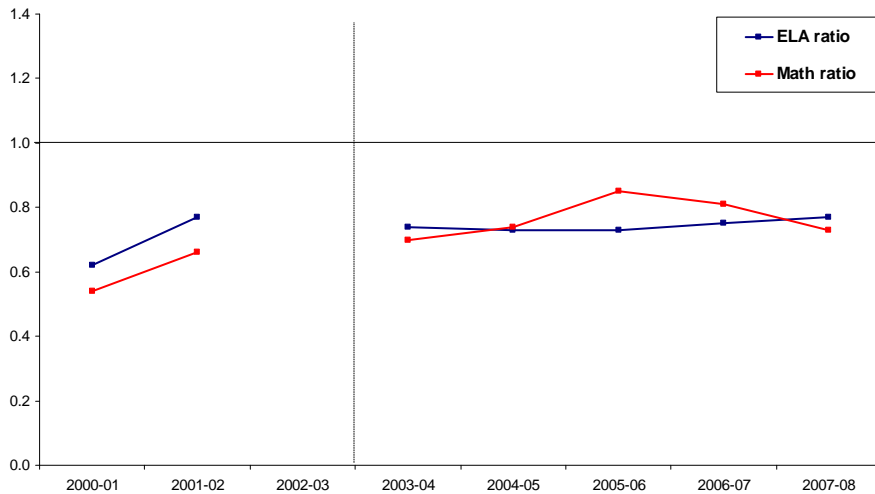
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 9. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Framingham School District**



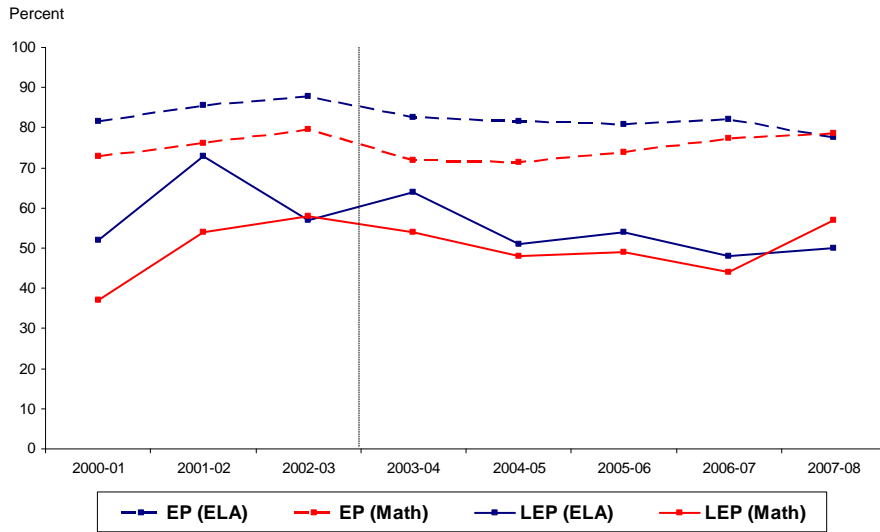
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 10. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Framingham School District**



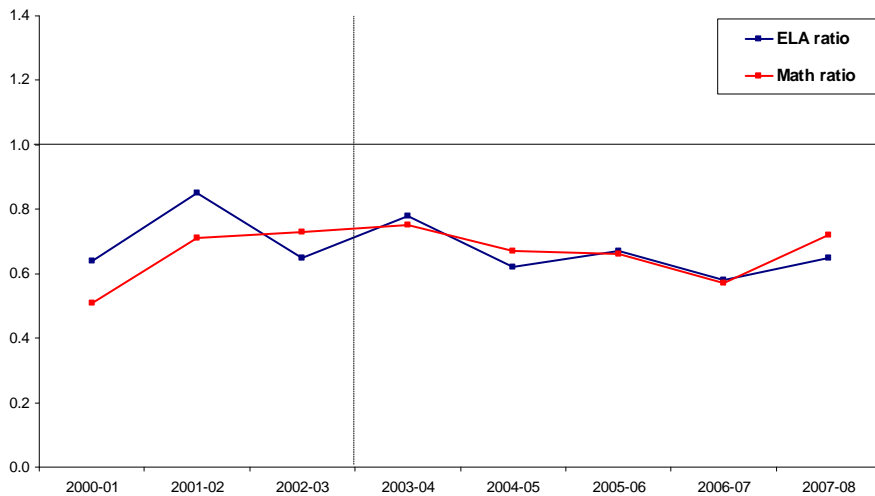
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 11. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Worcester School District**



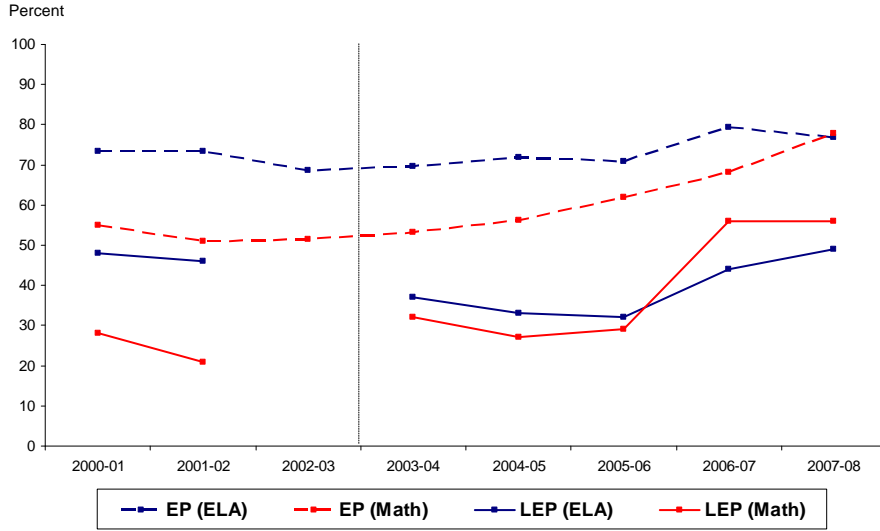
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 12. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Worcester School District**



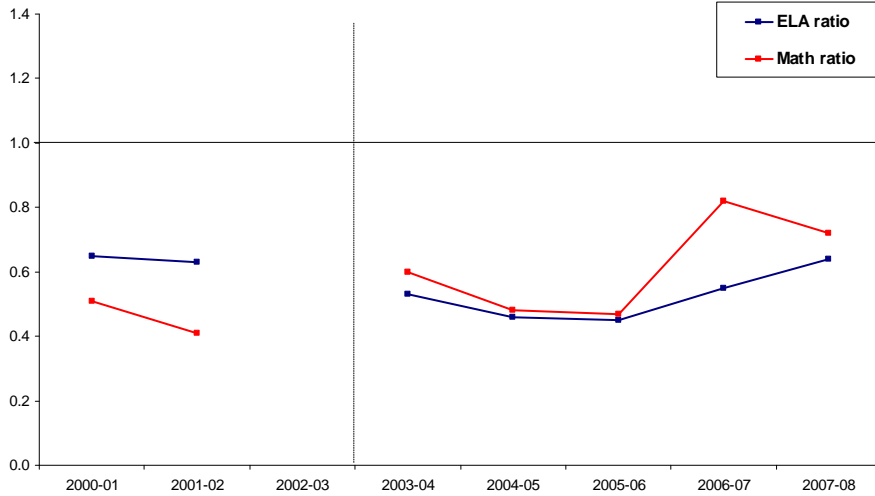
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 13. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Lawrence School District**



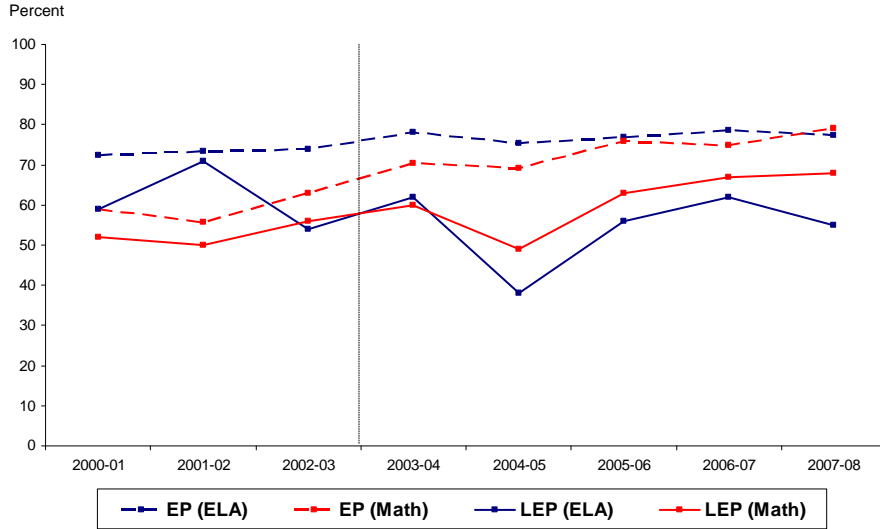
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 14. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Lawrence School District**



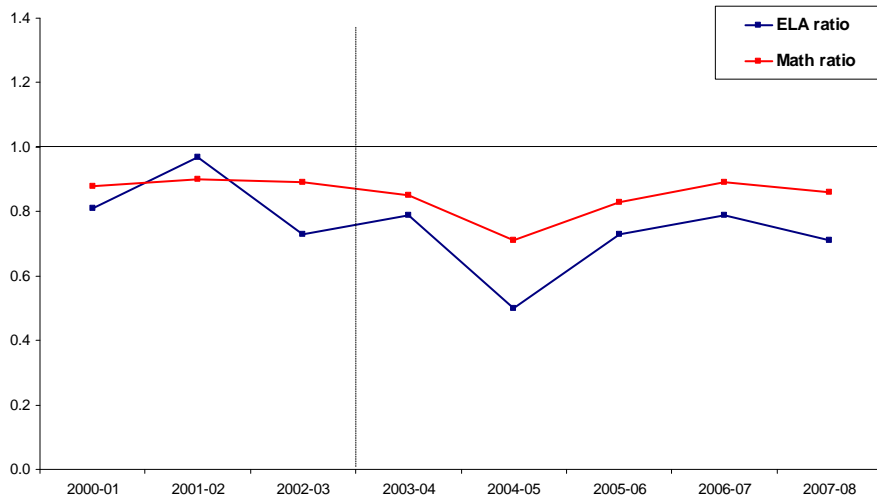
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 15. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Boston School District**



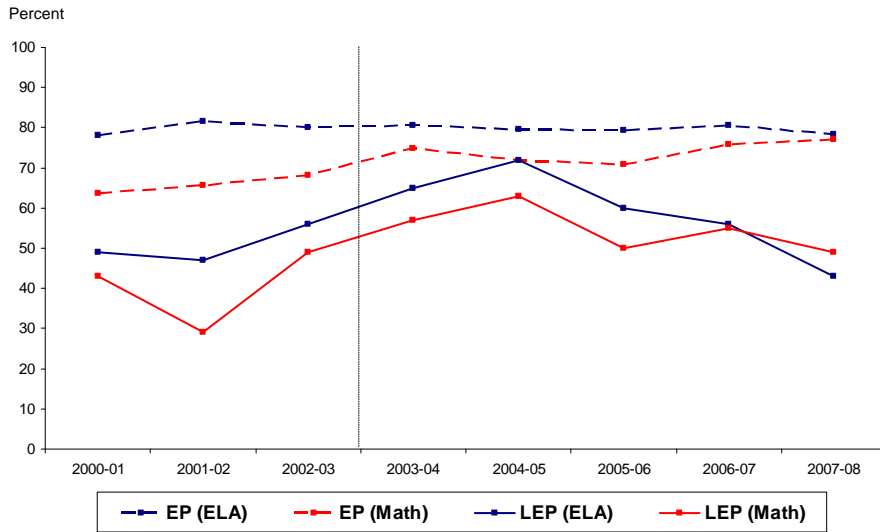
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 16. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Boston School District**



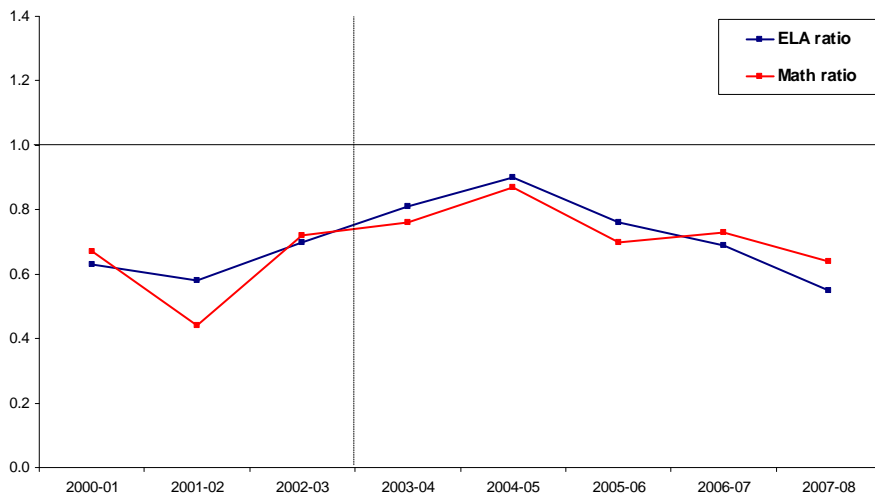
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 17. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Springfield School District**



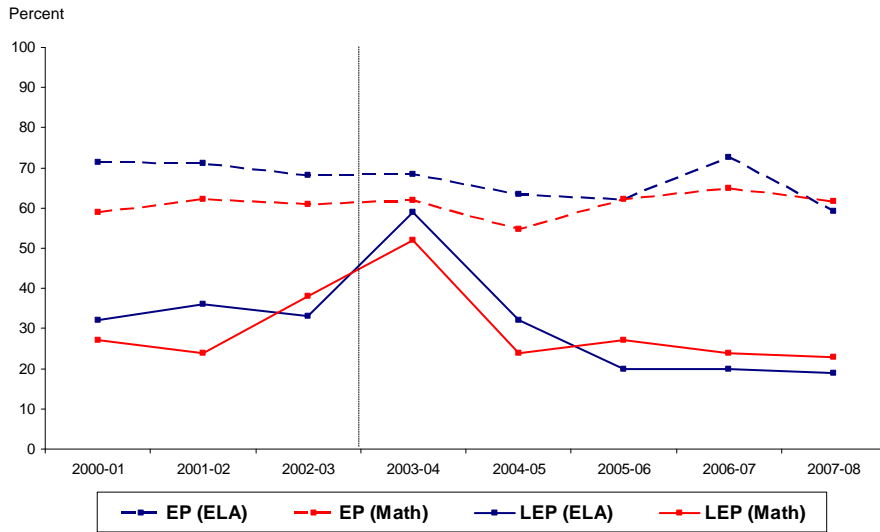
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 18. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Springfield School District**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 19. 4<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Holyoke School District**



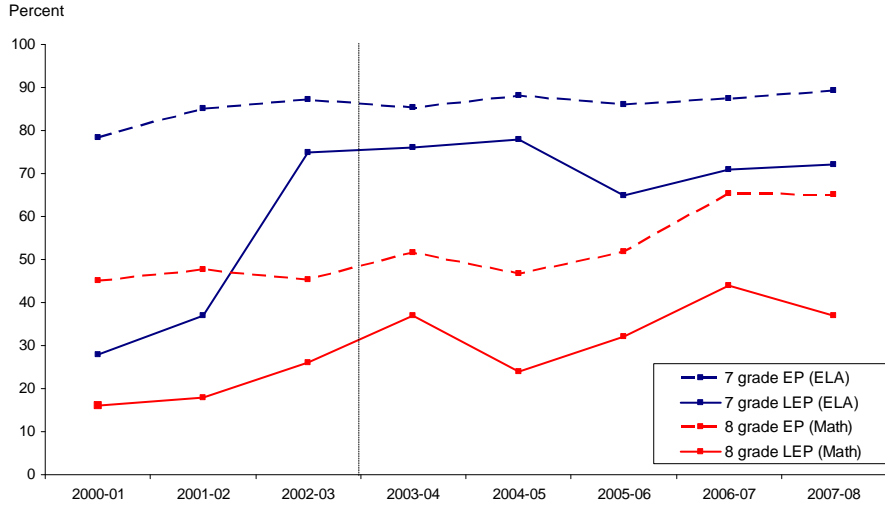
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 20. 4<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Holyoke School District**



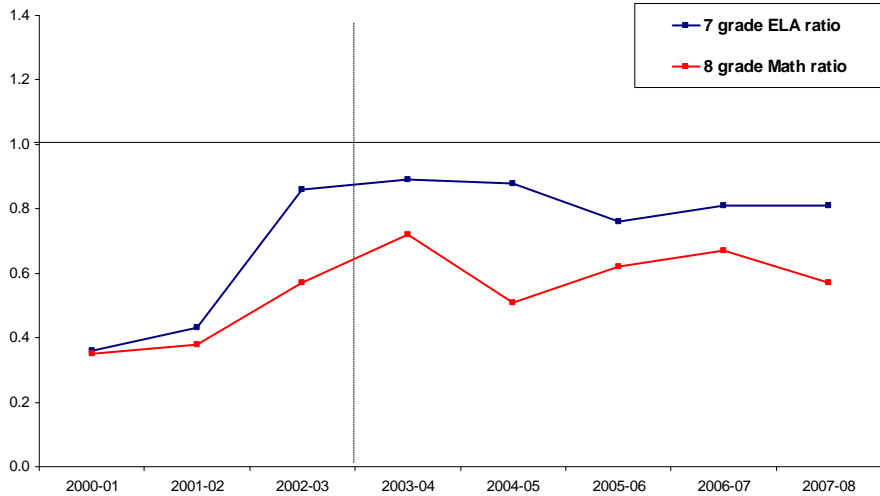
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 21. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Lowell School District**



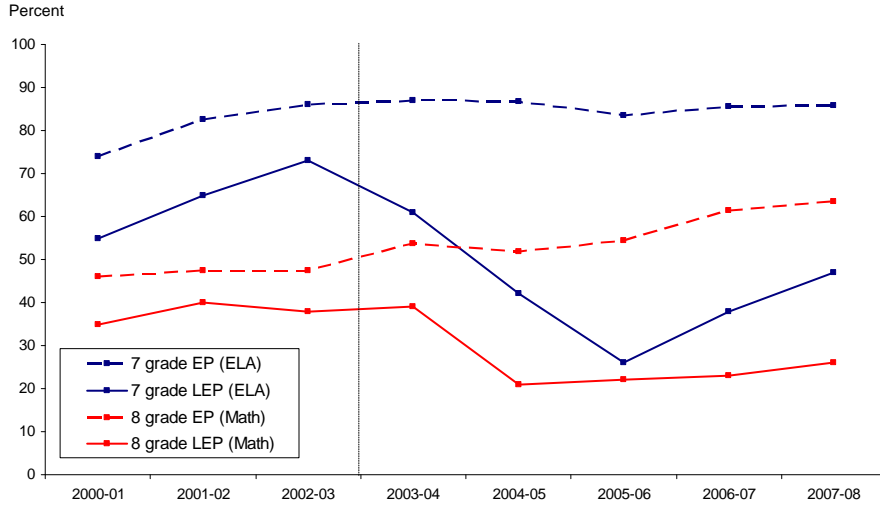
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 22. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Lowell School District**



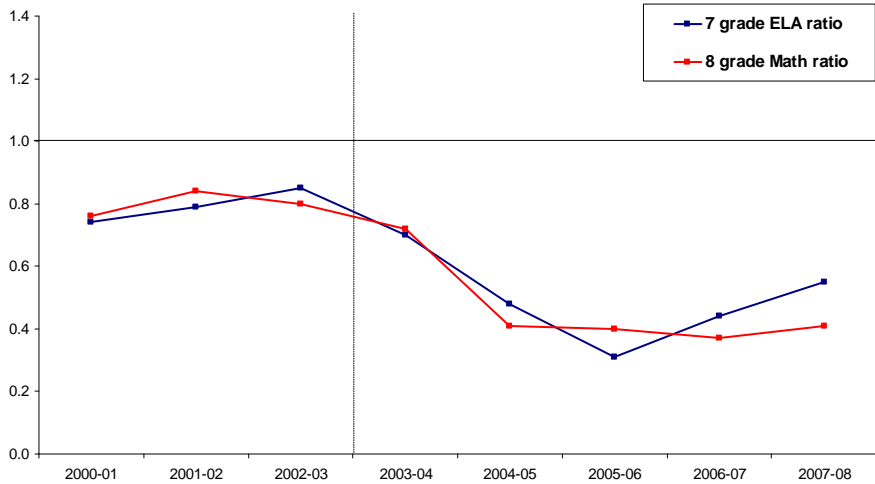
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 23. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Boston School District**



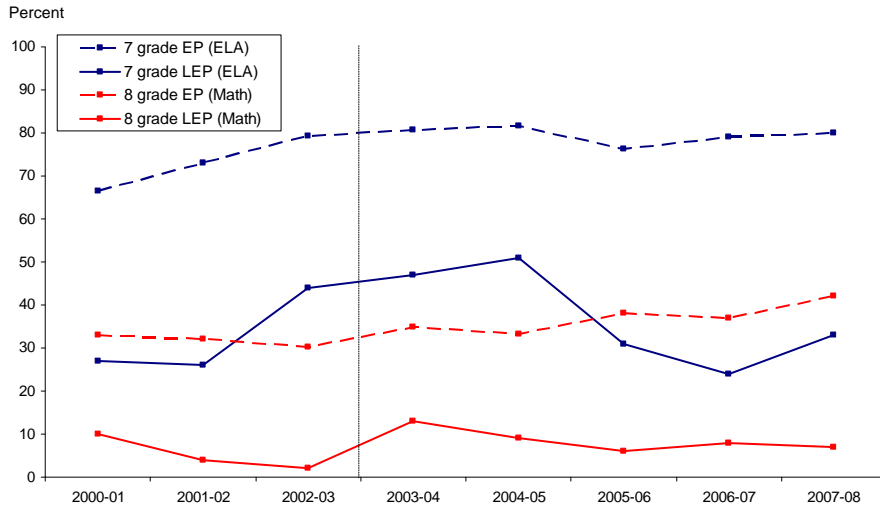
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 24. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Boston School District**



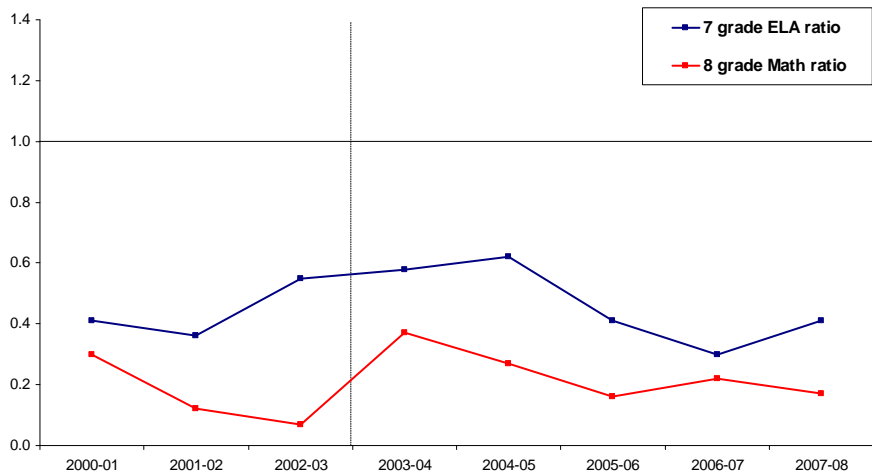
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 25. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Springfield School District**



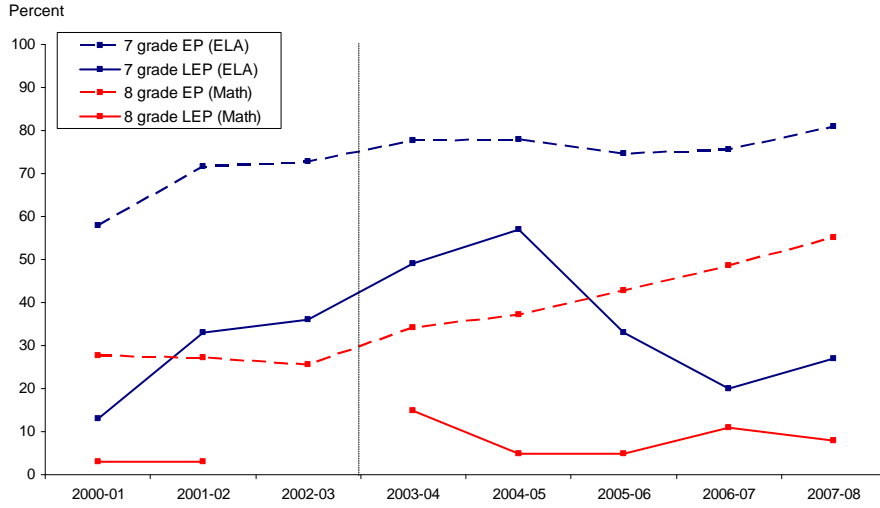
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 26. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Springfield School District**



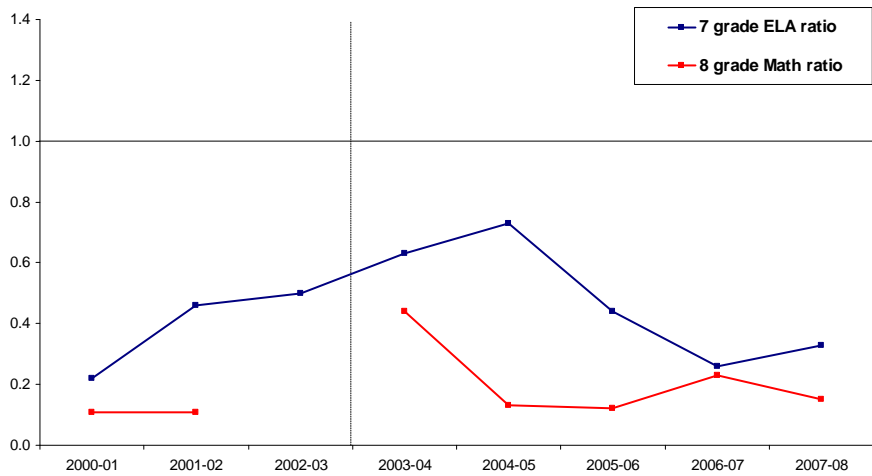
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 27. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Holyoke School District**



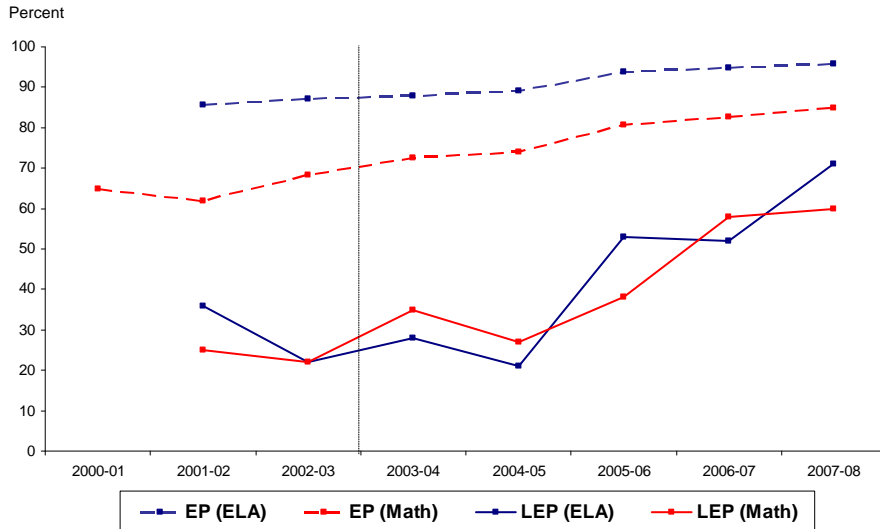
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 28. 7<sup>th</sup> and 8<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Holyoke School District**



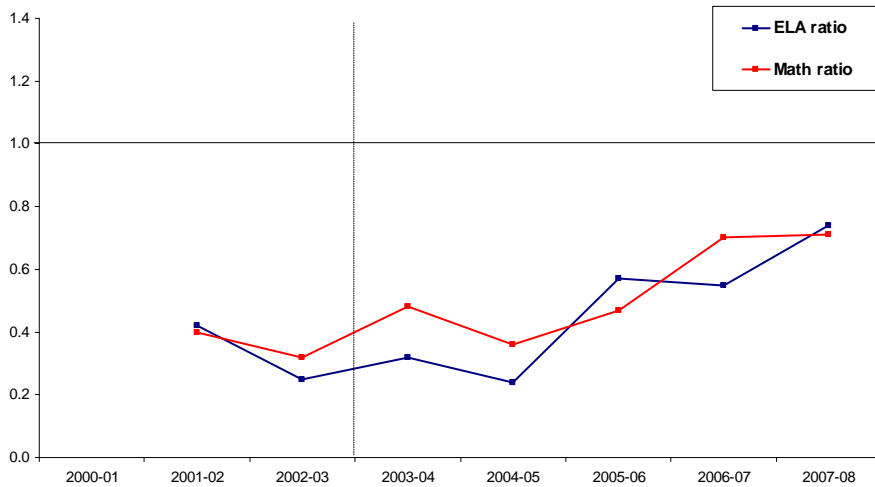
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 29. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Brockton School District**



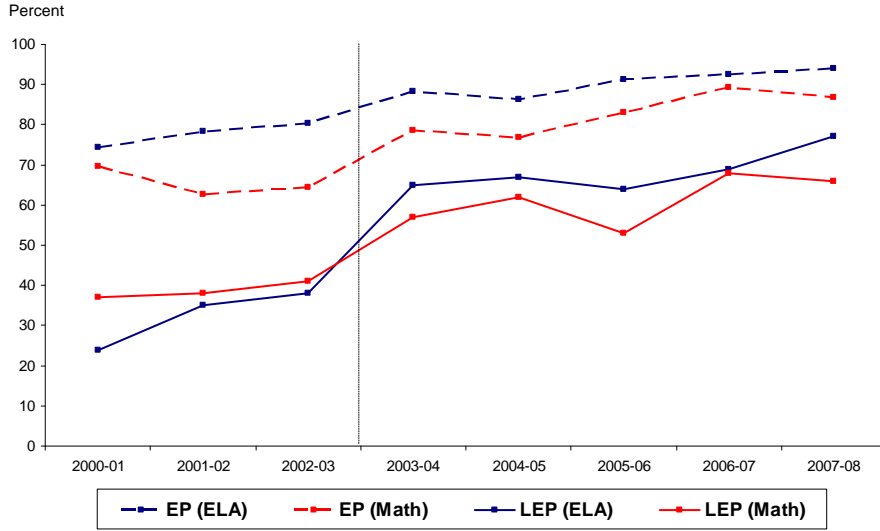
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 30. 10<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Brockton School District**



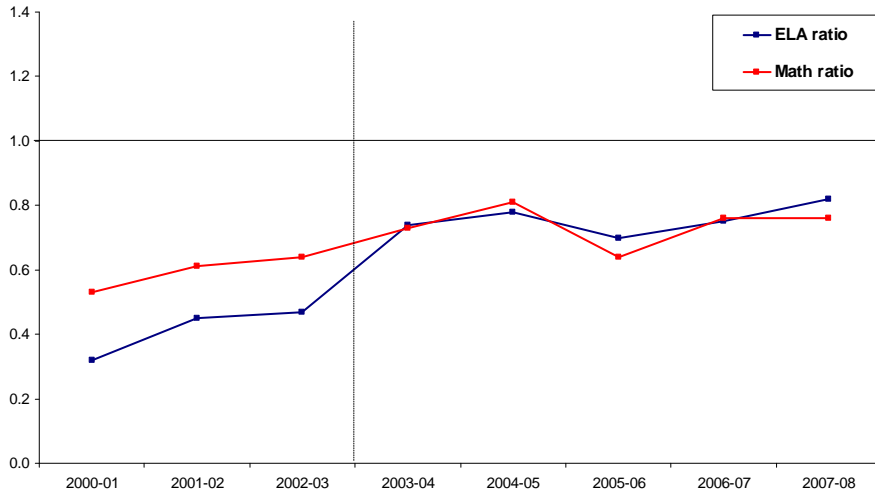
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 31. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Lowell School District**



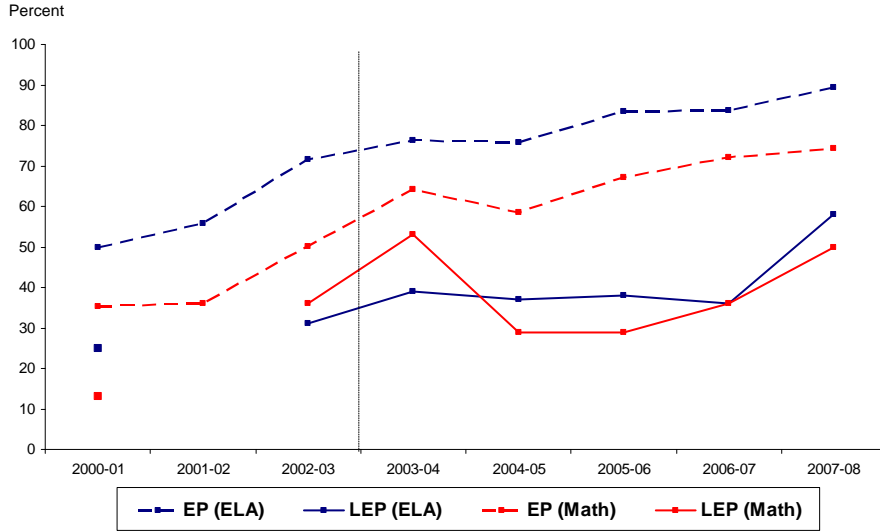
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 32. 10<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Lowell School District**



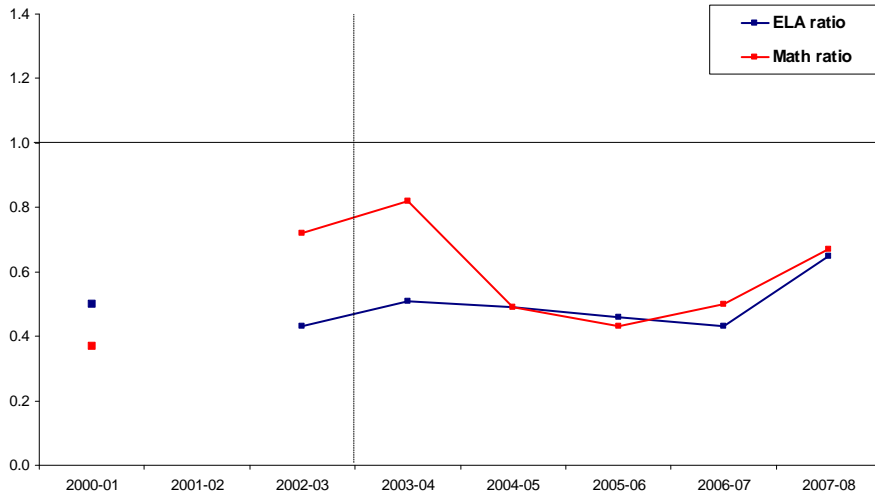
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 33. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Springfield School District**



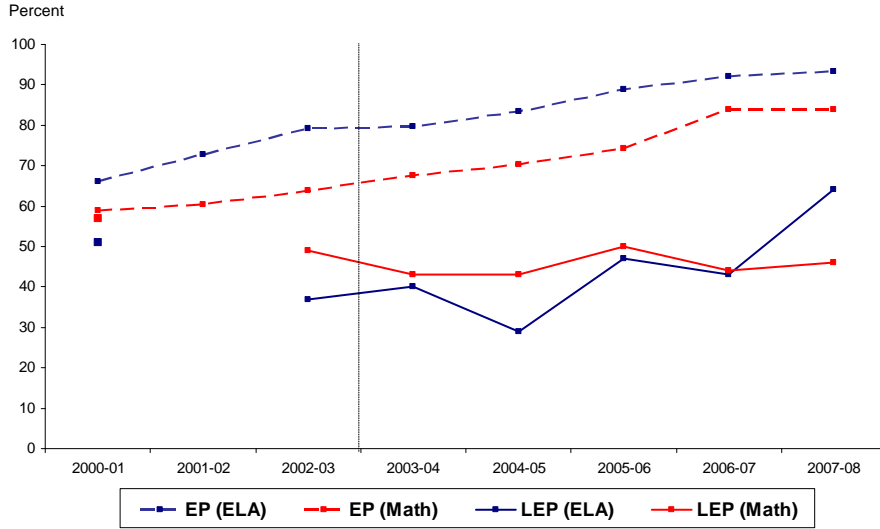
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 34. 10<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Springfield School District**



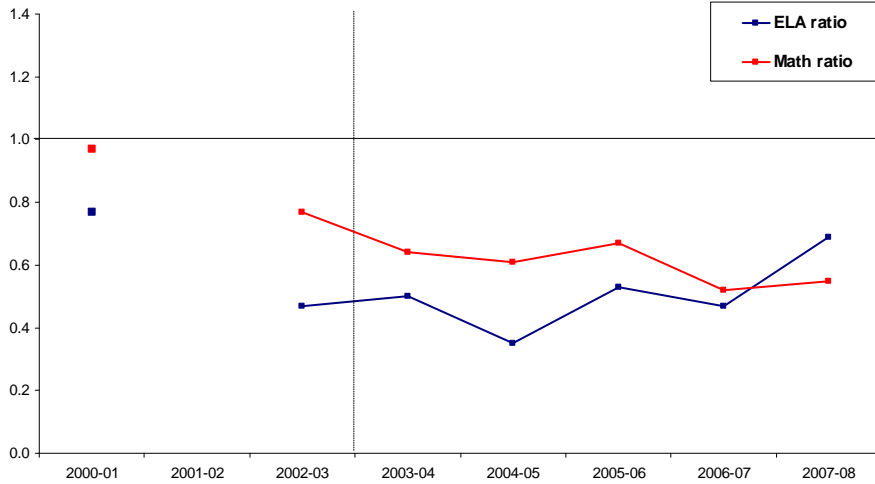
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 35. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Worcester School District**



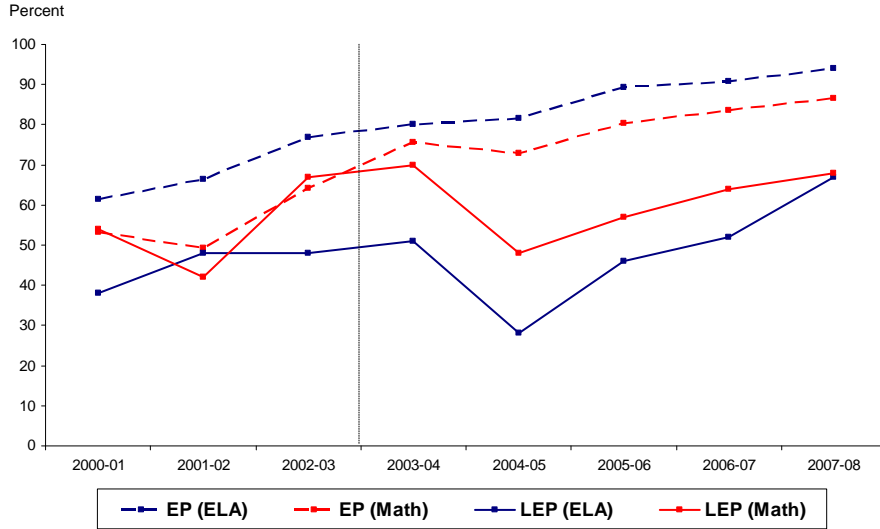
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 36. 10<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Worcester School District**



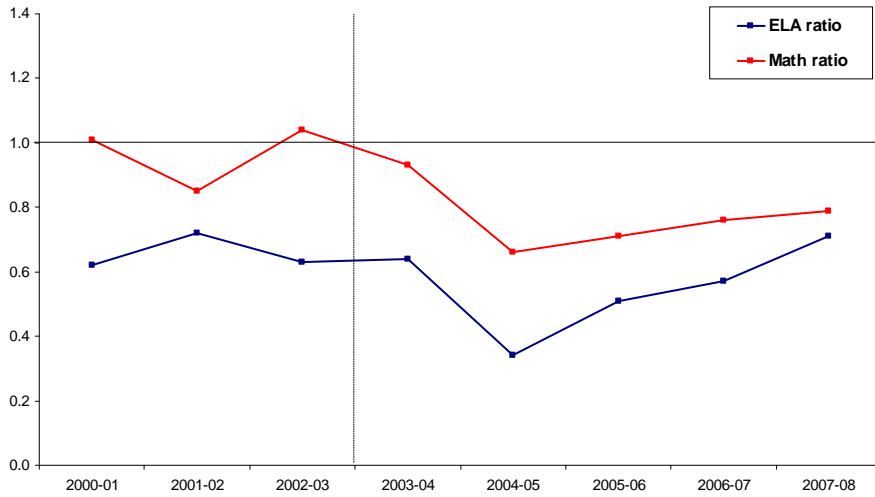
Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 37. 10<sup>th</sup> Grade MCAS: Shares of LEP Students and English-Proficient Students (EP) Scoring at or above Needs Improvement, Boston School District**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.

**Appendix Figure 38. 10<sup>th</sup> Grade MCAS Shares at or above Needs Improvement: Ratios of LEP Students to English-Proficient Students, Boston School District**



Source: Massachusetts Department of Elementary and Secondary Education  
 Note: Pass rates are the combined shares of students who score at Advanced, Proficient, and Needs Improvement levels.