



An Evaluation of the Commonwealth Pilot School Initiative

Interim Report:

Baseline School Characteristics and Changes

A preliminary analysis of baseline school characteristics and immediate changes resulting from the Commonwealth Pilot School Initiative

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Executive Summary

In January 2008, the Commonwealth Pilot School initiative was at the mid-point of its first year. Substantial changes had been implemented at the four participating schools: Academy Middle School in Fitchburg, The English High School in Boston, and Duggan Middle School and Putnam Vocational Technical High School in Springfield. New autonomies had allowed the schools to alter their size, staff, schedule, time on core content, and level of teacher collaboration, and to implement changes that build relationships among teachers and students.

- Three schools experienced substantial reductions in enrollment. Although English and Putnam maintained enrollment in excess of program guidelines, both schools enhanced existing Smaller Learning Community structures. Enrollments declined at Duggan by 44% and at English by 34% in accordance with school Design Plans. Academy's enrollment decreased by 20% due intra-district school choice. Putnam increased enrollment by 10%.
- School leaders exercised new autonomy over staffing, releasing some teachers and redeploying resources to staff new positions essential to their plans. At the same time, many teachers exercised their right to transfer rather than remain with their old schools. Fitchburg experienced a district-wide reduction in force that prevented Academy's principal from removing staff with professional status. Overall, total staff turnover ranged from 16% at Putnam to 73% at Duggan.
- Schools modified their schedules, resulting in increased weekly time in learning for students at Academy (5 hrs. 55 min.) and English (3 hrs 59 min.), and decreased time at Duggan (-1 hr. 15 min.). There was no change at Putnam. Available time at Academy was bolstered by an Expanded Learning time grant. New schedules at Academy, Duggan, and English reflect a similar approach: the length of most regular school days was increased, while one or more shortened "alternative" days were implemented each week to create collaborative learning time. Schedules may continue to evolve, particularly at Duggan and Putnam.
- Academy, Duggan, and English used new scheduling autonomy to change the time devoted to four core academic subjects: English language arts (ELA), mathematics, science and technology/engineering, and history/social studies. Duggan and English moved to equalize time devoted to each of these four subjects each week (5 hrs. 25 min. and 4 hrs. 56 min., respectively). Academy changed a previously balanced schedule, reducing time for science and technology/engineering and history/social studies by a combined 1 hr. 52 min., while expanding time for ELA and mathematics by 8 hrs. 18 minutes. Weekly time on these four subjects remained unchanged at Putnam, a large vocational school with a complex schedule.
- Collaborative planning time, defined to include faculty and team meetings, as well as professional development, increased substantially at all four schools. Weekly collaborative planning time now ranges from 2 hours at Putnam to 6 hours 20 minutes at English. All four schools increased the frequency of these meetings and now have at least two per week (at Putnam) ranging up to five per week (at English).
- In order to foster meaningful relationships between teachers and students, all four schools decreased their student-to-staff ratios (STR): At Academy and English the STR is now 10.5 to 1; at Duggan it is 9.9 to 1; and at Putnam it is 8.8 to 1. In addition, all four schools now operate student advisory programs that provide opportunities for teachers and students to better know and understand one another.

These and other changes establish conditions within the four schools that should contribute to the development of better and more unified professional learning communities, and, in the long term, more effective schools. The new autonomies of the Commonwealth Pilot Schools also bring increased accountability for student outcomes. These outcomes will be the focus of future evaluations of this initiative.

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I. Introduction

In September 2007, four urban schools—Academy Middle School in Fitchburg, John J. Duggan Middle School in Springfield, Roger L. Putnam Vocational High School in Springfield, and The English High School in Boston—reopened as Commonwealth Pilot Schools. In November 2006, these schools—each of which was in underperforming status for four years or more under the Massachusetts School and District Accountability System—were identified as candidates for designation as “chronically underperforming” schools. As an alternative to this designation, the Massachusetts Board of Elementary and Secondary Education (the Board) invited these four schools to enter into a process by which they would convert to Commonwealth Pilot Schools, accepting increased autonomy coupled with increased accountability for student outcomes.

The Commonwealth Pilot School Model

Patterned on a model already in place within the Boston Public Schools (BPS), the Commonwealth Pilot School initiative (the Initiative) is part of the Massachusetts Department of Elementary and Secondary Education’s (ESE) ongoing effort to provide effective options for restructuring underperforming schools. The Boston Pilot Schools model was developed by the BPS and the Boston Teachers Union (BTU) in 1995 in response to newly enacted charter school legislation. Since that time, the Center for Collaborative Education (CCE) has served as coordinator and as an advocate for Boston’s Pilot Schools¹. BPS pilots are exempt from certain BTU contract provisions and BPS district policies, providing these schools with substantial autonomy over their operations.

Like BPS pilot schools, the four schools in the Commonwealth Pilot School cohort received substantial new autonomies encompassing five operational areas: (1) staffing and hiring, (2) school schedule and calendar, (3) curriculum and assessment, (4) governance, and (5) budget. To support these autonomies, each participating district developed a Memoranda of Agreement (MOA) with its local teachers union, exempting the proposed Commonwealth Pilot Schools from existing work rules and defining the conditions under which they could be established. Through the use of these autonomies, these schools are envisioned to become innovative, mission-driven organizations that emphasize meeting individual student learning needs through a personalized school culture.

The Conversion Process

Following the agreement of district superintendents, school committees, union leadership, and school faculties to pursue conversion, each of the schools engaged in an intensive pre-pilot planning process led by a school design team. These teams were comprised primarily of school leaders and faculty, supplemented to varying degrees by representatives of district administration, community partners, and school parents. These teams developed and revised Commonwealth Pilot School Design Plan proposals with the support of CCE pilot school coaches. These proposals described the changes to be pursued by each school in the coming years. The Board approved each of the four schools’ proposals in March 2007.

Once established as Commonwealth Pilots, each school developed a Work Election Agreement (WEA). The WEA serves a key role in defining school operations and teacher working conditions for the upcoming school year. WEAs may be revised annually by a school’s Governing Board, a structure created as part of the pilot process. In accordance with these WEAs, at the conclusion of the 2006-2007 school year, existing staff positions at Commonwealth Pilot Schools were effectively vacated, and teachers and student support staff who did not want

¹ In fiscal year 2007, there were 20 pilot schools in the Boston Public Schools. At that time, the Fitchburg Arts Academy in Fitchburg was the only Massachusetts pilot school outside of the Boston Public Schools.

to work under the new WEA conditions were guaranteed the right to transfer elsewhere in their district, provided that they had professional status under their previously established union contract.

Teachers who wanted to remain at their school were allowed to reapply, provided that they signed the WEA, thereby accepting its provisions. School leaders were not under obligation to re-hire staff who signed the WEA, as their new staffing autonomy allowed them to release staff whose skills or vision for school improvement did not align with the school's needs or direction. Staff with professional status who were not invited to return to the new Commonwealth Pilot Schools were also guaranteed the right to a position in another school within their district. A district-wide reduction-in-force in Fitchburg nullified school leadership's ability to exercise this hiring autonomy, though school staff with professional status maintained their right to transfer to other district schools.

In September 2007, following extensive planning and professional development that extended through the summer months, each of the four schools opened its doors to students. Many changes called for in school Design Plans were already in effect, while many others were ongoing or still in planning. In general, changes were most immediately evident in staffing, instructional schedules, and new collaborative planning and professional development time. Much of this planning and professional development time was, and remains, focused on supporting the use of new structures and initiatives in each school as part of the reform process.

The Purpose and Organization of this Report

This report presents a range of data regarding baseline characteristics within and across the Commonwealth Pilot Schools in 2006-2007, a view of changes in these baseline characteristics as of January 2008, and an overview and discussion of recent student indicators and achievement data, as a prelude to and foundation for longer-term program outcomes evaluation. Substantively, the report focuses on areas where baseline and impact data are currently most reliable and available, and on areas where immediate impacts have occurred. The report appendix provides additional historical data, presenting more long-term trends in selected student enrollment and staff characteristics tracked by ESE.

Ultimately, this report is intended to introduce readers to changes realized within each school, as well as across schools. Its three-part structure highlights:

- I. The impact of Commonwealth Pilot School guidelines and autonomies on school enrollment and staffing.
- II. The impact of scheduling autonomy and the impact of school schedule on time for instruction in four core academic subjects and on time for collaborative planning-related activities, including common planning time and professional development.
- III. Past school-level student achievement at these schools, as well as important considerations for the long-term evaluation of student outcomes that may result from the Initiative.

These discussions provide an introduction to the complex and interrelated changes taking place within the four schools. Additional formative feedback and a more detailed exploration of the early impacts of the conversion process on operations, teaching, and learning will be addressed in a final project report in summer 2008. In addition, the experience gained from compiling and analyzing these baseline data will inform recommendations to ESE regarding future baseline data collection requirements in the Commonwealth Pilot School application and design phase.

II. Methodology

Following is a review of the data sources upon which this report relied, organized by subject area. This includes definitions of key variables and terms, a discussion of the treatment and analysis of data, and notations regarding the limitations of certain data.

Data Sources

This report relies on the review and analysis of data originating from ESE, participating school districts, and the four Commonwealth Pilot Schools. These data include archival documents, available secondary data, and a series of initial and follow-up interviews with leaders of these organizations. They provide a broad view of the historical characteristics of the schools, as well as preliminary indications of change in those characteristics that have been most directly and immediately impacted by the pilot conversion process. Following is an overview of data collection and analysis methods related to student enrollment and demographics, school staff, instructional schedules, and student indicators and achievement at each of the four schools.

Student Enrollment, Demographics and Mobility

The Massachusetts Department of Elementary and Secondary Education's office of Information Services collects, validates, and reports a range of student enrollment and demographic data through its Student Information Management System (SIMS), a statewide student-level data repository. ESE's SIMS data are widely regarded as a reliable source for student data and serve as the primary source of the student enrollment and demographics baselines contained in this report. Notably, with the exception of race/ethnicity data, ESE student demographic data for the 2007-2008 academic year were not available at the time this report was written. In order to create a comparative perspective and highlight impacts on student demography, the researchers acquired district attendance and other student census reports directly from the schools or their district offices.

This report also presents past student mobility rates for each of the four schools. These rates represent the mobility within each school's student population within a single academic year. Because ESE does not regularly report student mobility data, and because individual districts may employ varying standards for such analyses, student mobility was calculated using student-level SIMS data provided by ESE. The mobility rates presented in this report reflect the proportion of students who either 1) enrolled after the start of the school year, or 2) began the year with the school, but left before the conclusion of the school year. Exact arrival and departure dates cannot be identified, but fall between ESE reporting periods in October and June of a given school year. Student enrollment, demographic, and mobility data are presented in *Section III: School Enrollment and Staffing*.

School Staffing

Commonwealth Pilot School guidelines prompted a reduction in some schools' enrollment. Further, school principals were granted new control over building staff, and staff with professional status were allowed to transfer to other district schools. As a result, changes in staffing levels, turnover rates, and teacher qualifications may be expected. This report provides baseline and current-year data for these variables, and describes leaders' use of staffing autonomy. These data, which are reported in *Section III: School Enrollment and Staffing*, were drawn from both school and district sources, as well as ESE, as described below.

Staffing Levels and Student-to-Teacher Ratio

Through 2006-2007, ESE collected and reported school-level counts of teaching staff, measured in “full-time equivalency” (FTE), through its District and School Staffing Report (DSSR) program. However, 2006-2007 DSSR data were only available for Fitchburg.² Similar 2007-2008 data maintained in ESE’s new Educator Personnel Information Management System (EPIMS) were not yet available at the time of this report. As a result, staff counts were obtained primarily from school and district sources, including personnel databases, staff rosters, and through extended discussions with school leaders. Because staffing levels can vary over the course of the year, there is the chance of small discrepancies in staff counts when comparing estimates from different sources. Staff counts presented in this report include vacant positions, to the extent they were noted by the school/district.

ESE provided 2006-2007 student-to-teacher ratio (STR) data for the four schools; however, 2007-2008 STR data were not available at the time of this report. To enable a comparison of STR, 2007-2008 STRs were estimated using school-reported student enrollment and teacher staffing data. As with the number of teachers, STR estimates may be expected to vary slightly from figures that will later be posted by ESE. STR data are also described in this report as “students per teacher” in an effort to simplify the display of data in tables.

Staff Turnover

Staff turnover data presented in this report were compiled from both district- and school-generated documents and data. Review and discussion of these data with school and district leaders supported an understanding of the reasons that some staff did not return after the end of the 2006-2007 school year. For the purpose of this report, staff turnover is defined as the number of teachers and student support staff who were at the school in 2006-2007, but did not return for 2007-2008. Historical data for years prior to 2006-2007 were not available to the research team.

Calculated turnover rates are best estimates based on available data. Staff rosters, which formed the basis of turnover conversations with school principals, were drawn from existing school records, and in some cases, the date for which the roster was prepared was unclear. Additionally, the reasons individual staff may have left were reported by school leaders but could not be verified by the affected teachers themselves.

Teacher Qualifications

ESE reports two measures of teacher qualification: the percent of teachers licensed in their teaching assignment and the percent of core subject teachers identified as highly qualified under federal No Child Left Behind (NCLB) standards. To be considered highly qualified, teachers must possess a valid Massachusetts teaching license at either the preliminary, initial, or professional level as well as demonstrate subject matter competency in the areas they teach. These data were available only through 2006-2007 at the time of this report.

School Schedules

School instructional schedules provide a template for the use of student time and thus provide the basis for estimates of total time spent on learning, time devoted to four “core” academic subjects (defined herein to include ELA, mathematics, science and technology/engineering, and history/social studies), and time in advisories. Impact analyses for these variables are presented in *Section IV: Time for Instruction and Collaborative Planning*. For the purposes of this report, time spent on learning refers to all time in the school day excluding time students spend in lunch or passing between classes. Because the length of time a student spends on any one subject may vary depending on the academic period and/or day in which the student is scheduled to receive instruction in that subject, reported time in each of these four core subjects should be considered a careful estimate of the time a

² Boston and Springfield participated in ESE’s Educator Personnel Information Management System (EPIMS) pilot program in 2006-2007, which has replaced the DSSR system in 2007-2008. EPIMS data collected during the 2006-2007 pilot were not available to this study.

typical student would spend in that subject each week. Due to the complex nature of school schedules, preliminary calculations were subsequently confirmed in interviews with principals.

School schedules offer some perspective on the time available to teachers for common planning, professional development, and individual planning. However, additional time for these activities is frequently allocated outside the regular school day. To account for this, WEA agreements, school calendars, and school schedules all served as resources for estimating the time teachers spent on these activities. In this report, common planning and professional development time are reported in a single estimate (referred to as “collaborative planning” time), due to the fluidity of how such time is used within each school over the course of a year. The estimates contained in this report reflect the total scheduled time that is reported to be set aside for these activities. Again, preliminary collaborative and individual planning time totals were reviewed and corrected, as necessary, by school leaders.

Student Indicators and Achievement

The final component of this analysis, *Section V: Baseline Student Indicators and Achievement*, provides a view of recent trends in various measures of student engagement and performance maintained by ESE. These data represent critical baselines for schools working to improve student learning and accountability status. They are presented to highlight some of the baseline metrics through which the success of the Initiative may ultimately be considered. Consideration of these commonly available data and their interaction with changing student enrollment and demographics will be critical to long-term outcomes measurement.

The student “indicators” data presented in this report include student attendance, retention, dropout, and four-year adjusted cohort graduation rates. Attendance and cohort graduation data correspond to school year 2006-2007. Retention and dropout data are from 2005-2006, the most recent year available at the time of this report. Indicators data are reported by ESE at the school level and are based on SIMS data reported by all Massachusetts public school districts.

Student indicators data are presented alongside district averages, which only include schools serving the same grade levels in each district. For example, Putnam High School’s retention rates are compared to those of other Springfield high schools, while Duggan Middle School’s retention rates are compared to those of other Springfield middle schools. District-wide indicators data for the Boston Public Schools exclude exam schools and other Boston pilot schools.

The student achievement data presented in this report are school-level Massachusetts Comprehensive Assessment System (MCAS) test results. MCAS tests are administered to students in four subjects—English language arts (ELA), mathematics, science and technology/engineering, and history and social science—and are intended to assess student mastery of critical educational content and skills defined in the Massachusetts Curriculum Frameworks. This report focuses on the MCAS tests with the longest historical basis and which have longest been included in calculations of Adequate Yearly Progress (AYP) under the state’s accountability system. These include grade 6 mathematics, grade 7 ELA, and grade 8 mathematics exams for middle schools, and the grade 10 mathematics and ELA exams for high schools. Four-year MCAS achievement trends are presented in this section.

III. School Enrollment and Staffing

A sizable body of education literature suggests a positive correlation between small school size and student achievement, particularly in urban environments. Small size has been a prominent feature of the Boston Public Schools (BPS) Pilot School model from its inception, with nearly all BPS pilot schools serving student populations of fewer than 450 students, and the Initiative is patterned upon this model. Three of the four schools accepted as Commonwealth Pilot Schools served far in excess 450 students in 2006-2007 and were strongly encouraged to downsize or to convert to smaller schools sharing a common facility to meet this key condition of participation in the Initiative.

This requirement led to serious discussions of the merits and challenges of downsizing at each of these schools. This section explores changing student enrollment, student demography, and school staffing that resulted from downsizing. This section also examines the impact of new school-level autonomy with regard to staff retention and hiring at each of the four schools, and offers an overview of observable changes in each school from 2006-2007 to the present time (January 2008), as well as summary observations of the impact of pilot “conversion” on student enrollment, student demographics, staffing levels, and staff qualifications across the four schools.

A. Academy Middle School, Fitchburg

Student Enrollment and Demographics

Between 2006-2007 and 2007-2008, Academy Middle School’s student enrollment declined from 462 to 368, a drop of 20%. Unlike other schools, Academy’s change was not attributable to the need to comply with the Initiative’s enrollment guidelines. In fact, this decline was a continuation of a trend that began in 2002 (see Appendix A). This ongoing decline is commonly attributed to intra-district school choice. According to Fitchburg Public School (FPS) district officials, Academy’s student achievement struggles, as well as turnover at the principal position, have resulted in decreased demand for placement at that school.

Figure 1 displays student demographic characteristics at Academy Middle School prior to and immediately following the school’s conversion to a Commonwealth Pilot in September 2007. Academy’s student profile did not shift dramatically in the past year as a result of pilot conversion (or school choice decisions), with the most notable changes including a modest increase in the proportion of students with limited English proficiency (LEP) and a modest decrease in students identified as first language not English (FLNE).

Figure 1: Academy Middle School, Student Profile³

	2006-2007 (N = 462)	2007-2008 (N = 368)	Change (% points)
Low Income Status	77%	78%	+1
Non-White	71%	71%	-
First Language Not English	39%	33%	-6
Limited English Proficiency	7%	11%	+4
Special Needs	21%	24%	+3

³ Source data for 2005-2006 enrollment and demographic data presented in this section is ESE. All 2007-2008 data were provided by the school or district. Data were not available to run “same grade level” averages at the district level for 2007-2008.

Following are highlights—featuring differences of five percentage points or more—of Academy’s student profile in relation to other FPS middle schools. In 2006-2007, the proportion of Academy students who were...

- Living in low-income households was 77%, compared to 60% district wide.
- Non-white was 71%, compared to 51% district wide.
- FLNE was 39%, compared to 31% district wide.
- LEP was 7%, compared to 19% district wide.

It is also notable that Academy experienced a 21% student mobility rate in 2006-2007. That is, 21% of its students did not both start and end the year with the school. Data for 2007-2008 are not yet available. Research consistently shows a correlation between high rates of student mobility and adverse educational outcomes.^{4, 5}

School Staffing

As presented in Figure 2, Academy Middle School’s teacher count declined 10% over the past year, paralleling the decline in student enrollment of 20%. This resulted in a net improvement in Academy’s student-to-teacher ratio (STR), which decreased by nearly a full student. The school’s total staffing count benefits this year from new funding provided by an Expanded Learning Time grant provided by ESE. The school hopes to add ELA and mathematics coaches to its staff in the current year, consistent with its Design Plan, but has had difficulty attracting qualified applicants to the positions. (Coaching positions are not included in teacher position counts.)

Figure 2: Academy Middle School, Teacher Positions and Student-Teacher Ratio

	2006-2007	2007-2008	Change	% Change
Teaching Positions ⁶	39	35	-4	-10%
Student-Teacher Ratio ⁷	11.4 : 1	10.5 : 1	-0.9 : 1	-8%

Academy operates with a lean administrative team, consisting of one principal and one assistant principal. This remains unchanged from the previous year. During the pilot design process, the school’s principal elected to leave the district, clearing the way for the hiring of a new principal who was familiar with the “Turning Points” model for middle school reform that was central to the school’s Design Plan. Principal Susan Quick was hired shortly after the school year ended, subsequent to the pilot design process, but before new staff members were hired. This allowed her to manage the hiring process and look for staff who she felt would be effective and comfortable with the Turning Points reform model.

There was substantial hiring to be done. Academy experienced staff turnover of 61% (27 of 44 staff positions—including teachers and student support staff—attributed to the school by the district in 2006-2007). Of the 27 departing staff, 15 exercised their right to transfer to other district schools, 4 retired or resigned, and 8 who were on provisional teaching contracts were released as part of a district-wide reduction in force (RIF). Because of the RIF, the principal did not have the flexibility to exercise the autonomy over staffing that is central to the pilot school model. Normally, this autonomy allows leaders to release teachers who are not matched to the school’s

⁴ U.S. General Accounting Office (1994). *Elementary School Children: Many Change Schools Frequently, Harming Their Education*. Washington, D.C.: General Accounting Office.

⁵ Rumberger, R.W. & Larson, K.A. (1998). Student Mobility and the Increased Risk of High School Dropout. *American Journal of Education*, 107 (1), 1-35.

⁶ Teaching positions include classroom teachers only. The number of teaching positions at Academy Middle School is based on district reports and consultation, as well as school staff rosters. Teacher counts from other schools presented in this section are based on school- or district-provided staff rosters and consultation with building principals.

⁷ STR source: ESE Information Services (2006-2007). STRs for 2007-2008 represent preliminary estimates based on district- and school-provided teacher counts and enrollment data.

needs. Released staff with professional contracts are entitled to other positions within their district. The RIF did not explicitly limit the rights of teachers with professional status to transfer within the district.

Teacher Qualifications

Changes in school recruitment and retention practices have the potential to impact the qualifications of teaching staff at each of these four schools. At Academy, the principal noted that while she looked for staff through available district lists, she sought to hire staff with a range of backgrounds, who were committed to children, and who brought diverse “lenses” to their work with young people.

Two measures of basic teacher qualifications are available through ESE: the percentage of teachers licensed in their teaching assignment, and the percentage of core academic teachers identified as “highly qualified” under No Child Left Behind (NCLB). To be considered highly qualified, teachers must possess a valid Massachusetts teaching license at either the preliminary, initial, or professional level, and demonstrate subject matter competency in the areas they teach. Figure 3 presents the profile of Academy’s teachers in 2006-2007, as reported by ESE. Data for 2007-2008 were not available at the time of this report.

Figure 3: Academy Middle School, Teacher Qualifications

2006-2007	
Licensed in Teaching Assignment	99.5%
Core Academic Teachers Highly Qualified	99.5%

B. Duggan Middle School, Springfield

Student Enrollment and Demographics

Following Commonwealth Pilot School guidelines, Duggan Middle School's enrollment decreased 44%, from 778 to 437, between 2006-2007 and 2007-2008. As the Springfield Public Schools (SPS) primarily relies on a citywide district boundary plan to assign students,⁸ this action required alteration of the school's neighborhood boundaries and the reassignment of some students to other area middle schools. As presented in Figure 4, downsizing appears to have had an immediate impact on Duggan's student profile, including a substantial decrease in the proportion of LEP students and moderate decreases in the proportions of FLNE and non-white students. Duggan Middle School experienced a 22% student mobility rate in 2006-2007.

A comparison of Duggan's 2006-2007 student profile in relation to other SPS middle schools revealed no differences of five or more percentage points. Comparisons to 2007-2008 district middle school averages may be more compelling, but those data were not available at the time of this report.

Figure 4: Duggan Middle School, Student Profile

	2006-2007 (N = 778)	2007-2008 (N = 437 ⁹)	Change (% points)
Low Income Status	81%	78%	-3
Non-White	87%	82%	-5
First Language Not English	24%	17%	-7
Limited English Proficiency	16%	7%	-9
Special Needs	26%	29%	+3

School Staffing

As presented in Figure 5, Duggan Middle School experienced a 23% reduction in the number of teaching positions over the past year. However, this reduction occurred concurrently with a decline in student enrollment of 44%, and the net result was a 25% improvement in the school's STR, which decreased by over three students per teacher.

Figure 5: Duggan Middle School, Teaching Positions and Student-Teacher Ratio

	2006-2007	2007-2008	Change	% Change
Teaching Positions	57	44	-13	-23%
Student-Teacher Ratio	13.2 : 1	9.9: 1	-3.3 : 1	-25%

The SPS district elected to retain Duggan's principal, Jonathan Swan, who has served since 2004, to lead the pilot conversion process. Principal Swan's tenure was preceded by a period of rapid leadership turnover. As he prepared for the 2007-2008 school year, one of Swan's key decisions was to reconstitute his administrative

⁸ SPS students are given the option of attending district magnet schools. As an Expeditionary Learning Magnet School, Duggan is intended to receive 70% of its students from a geographically-defined "neighborhood" zone and 30% through Magnet enrollment.

⁹ For 2007-2008, N represents total student enrollment as reported by ESE. At the time of this report, the Department had not yet reported school-level rates of low-income status, first language not English, limited English proficiency, and special needs. Instead, estimates were obtained from school and district attendance reports and student census data. For these populations, the base number of students differs slightly from ESE enrollment figures at Duggan (431), Putnam (1,476), and English (827).

leadership team. In 2006-2007, the school employed three assistant principals. These positions, focused on behavior and discipline, were vacated. Two new assistant principals were hired for 2007-2008, and their roles were redefined to focus on instructional leadership. Swan then redeployed resources to hire an additional Dean of Students.

Principal Swan also used his new staffing autonomy to make dramatic changes to the school's teaching and student support services staff. In total, 73% (45 of 62) of Duggan's 2006-2007 staff were no longer with the school in September 2007, the highest turnover rate among the four schools. Of the 45 departing staff, the principal reports that over 30 left at his initiative. He also reported that fourteen teachers left of their own accord: six using their right to opt out of the pilot school, six taking a promotion within or outside the SPS, and two taking retirement.

Teacher Qualifications

In the wake of substantial teacher contract issues that were resolved within the past year, ESE data show that the SPS district has among the lowest rates of teacher licensure and highly qualified status in the Commonwealth (this excludes charter schools). As Figure 6 shows, at Duggan Middle School in 2006-2007, these rates were substantially below the district averages of 86% and 81%, respectively. Data for 2007-2008 were not available at the time of this report.

The principal began to recruit new staff beginning in February 2007, attending job fairs in Boston, Springfield, and at the University of Massachusetts. In this way, he looked beyond the list of prospects provided through the district's personnel office. He also reported that he had prospective staff perform demonstration lessons in the classrooms of teachers who were returning for the 2007-2008 school year. He noted that Duggan's expeditionary learning focus appeared to increase the number of teacher applicants.

Figure 6: Duggan Middle School, Teacher Qualifications

	2006-2007
Teachers Licensed in Assignment	78.0%
Core Academic Teachers Highly Qualified	66.0%

C. Putnam Vocational Technical High School, Springfield

Student Enrollment and Demographics

Putnam Vocational Technical High School is the only Commonwealth Pilot School that experienced an increase in student enrollment over the previous year, expanding from 1,333 to 1,472 students (10%). The decision to maintain the school's size was attributable to two factors. First, as the only vocational high school in Springfield, student re-assignment was impractical. Second, school leaders reported their understanding that the Chapter 74 regulations governing vocational schools would not allow Putnam to be sub-divided into smaller schools that would each individually operate a lesser range of vocational programs.

With regard to the increase in enrollment at Putnam, data show that the size of the freshman class accepted to the school remained level over the past two years, while class sizes in upper grade levels increased substantially. This may indicate lower rates of student attrition.¹⁰ Putnam experienced a student mobility rate of approximately 25% in 2006-2007, an improvement in relation to recent years.

Figure 7 presents a profile of Putnam's student population prior to and immediately following the school's conversion to a Commonwealth Pilot in September 2007. These data show that the school experienced a moderate increase in the proportion of its students who live in low-income households, with no other notable changes.

Figure 7: Putnam V-T High School, Student Profile

Putnam	2006-2007 (N = 1,333)	2007-2008 (N = 1,472)	Change (% points)
Low Income Status	69%	62%	-7
Non-White	86%	87%	+1
First Language Not English	22%	25%	-3
Limited English Proficiency	11%	10%	-1
Special Needs	25%	22%	-3

Following are highlights—featuring differences of five percentage points or more—of Putnam's student profile in relation to other SPS high schools.

In 2006-2007, the proportion of Putnam's students who were...

- Living in low-income households was 69%, compared to 63% district wide.
- Non-white was 86%, compared to 81% district wide.

School Staffing

As with student enrollment, Putnam was the only Commonwealth Pilot School to experience an increase in teaching staff in 2007-2008 (see Figure 8). Overall, the school added 17 new teachers in academic areas and 12 in vocational areas. The 21% increase in teaching positions exceeds the increase in student enrollment by 11 percentage points. The school's STR improved by approximately one student per teacher.

¹⁰ It is notable that, as a vocational school, the incidence of transfers into upper grade levels is confined to students transferring in from other vocational schools. Accordingly, the transfer in of new students in upper grades is not a likely an explanation for increasing enrollment in Putnam's upper grade levels. School officials estimate that Putnam's waiting list includes approximately 500 students.

Figure 8: Putnam V-T High School, Teaching Positions and Student-Teacher Ratio

	2006-2007	2007-2008	Change	% Change
Teaching Positions	138	167	29	21%
Student-Teacher Ratio	10.0 : 1	8.8 : 1	-1.2 : 1	-12%

SPS district leaders chose to retain Putnam’s principal, Kevin McCaskill, who has served in that role since spring 2004. He elected to maintain the school’s existing administrative leadership team and structure, but the school is actively working to enhance its Smaller Learning Community (SLC) leadership structures as part of its pilot plan. Putnam moved to SLCs several years ago in an effort to create a more personalized educational experience for its students. Using its vocational clusters as a basis for its SLCs, the school currently has four SLCs and intends to expand to five.

Overall, 24 of Putnam’s 147 teachers and support services staff departed at the end of 2006-2007, a turnover rate of 16%. This rate—the lowest among the four schools—is largely attributed to two factors. First, the district was limited in its ability to re-assign vocational teachers to other district schools. Second, the principal believed his staff were moving the school in the right direction and saw evidence in MCAS results to support his belief. Principal McCaskill reported that seven of the departing teachers retired, while eight left for other job opportunities either within or outside the district, in some cases outside the field of education. Four staff left at the principal’s initiative, and three exercised their right to transfer to another SPS school rather than join the new Commonwealth Pilot.

Teacher Qualifications

Putnam’s 2006-2007 teacher licensure and qualifications data reflect a profile similar to the Duggan Middle School and were also substantially below the district averages of 86% and 81%, respectively. Figure 9 presents the qualifications of Putnam’s teachers in 2006-2007. These data were not available for the 2007-2008 at the time of this report. Principal McCaskill reported that he relied on the district teacher recruitment lists to fill vacancies and new positions created over the past year.

Figure 9: Putnam V-T High School, Teacher Qualifications

	2006-2007
Licensed in Teaching Assignment	76.0%
Core Academic Teachers Highly Qualified	68.2%

D. The English High School, Boston

Student Enrollment and Demographics

In response to Commonwealth Pilot School guidelines, English High's enrollment was decreased 34% from 1,244 in 2006-2007 to 820. While it is still nearly twice the size of guidelines, this figure is consistent with building capacity, and the change alleviated overcrowding at the school. Downsizing was accomplished by reducing the number of new grade 9 students assigned to the school in fall 2007 by 300. Only 100 new grade 9 students entered English for 2007-2008, as opposed to the typical incoming class of 400 students.¹¹ Also in support of downsizing, the Boston Public School (BPS) district did not assign new transfers to English in spring 2007. Overall, rates of student mobility at English have hovered near 40%. The mobility rate was 43% in 2006-2007.

Figure 10 displays student demographic characteristics at English High School prior to conversion and as reported by the school in January 2008. While English High's student profile did not shift dramatically in the past year, it did experience a moderate decrease in the proportion of students from low-income households.

Figure 10: The English High School, Student Profile

English	2006-2007 (N = 1,244)	2007-2008 (N = 820)	Difference (% points)
Low Income Status	69%	63%	-6
Non-White	96%	96%	-
First Language Not English	53%	53%	-
Limited English Proficiency	24%	21%	-3
Special Needs	20%	22%	+2

Following are highlights of English High's student profile in relation to other BPS high schools. In 2006-2007, the proportion of English High's students who were...

- Non-white was 96%, compared to 90% district wide.
- FLNE was 53%, compared to 42% district wide.
- LEP was 24%, compared to 17% district wide.

School Staffing

As presented in Figure 11, English High experienced an 8% reduction in the number of teaching positions over the past year, in comparison to a student enrollment decline of 34%. This resulted in a sizeable reduction in the school's STR, which declined by more than five students per teacher (33%). Prior to this change, English High had the highest STR of the four schools by more than two students per teacher.

Figure 11: The English High School, Teaching Positions and Student-Teacher Ratio

	2006-2007	2007-2008	Change	% Change
Teaching Positions	85	78	-7	-8%
Student-Teacher Ratio	15.6 : 1	10.5 : 1	-5.1 : 1	-33%

¹¹ As the beginning of the 2007-2008 school year, there were 190 grade 9 students enrolled at English, including 90 student retentions from the previous year.

BPS district leaders chose to retain English High’s principal, Jose Duarte, who has served in that role since 2000. In response to a reduced enrollment, Principal Duarte made substantial changes to the school’s structure, streamlining the school from four SLCs to two, which allowed him to reduce SLC leadership positions. He also hired four new “program directors,” each of whom supports development and implementation of curriculum in one of four subject areas—ELA, mathematics, science and technology/engineering, or history/social studies—across the two SLCs. These complement similar positions focused on English language learner (ELL) and special education services, which were in place prior to pilot conversion. Principal Duarte also added social workers to the school’s staff, locating one in each of the two SLCs so they are “near the action.”

Overall, 37 of English High’s 85 teachers¹² departed at the end of 2006-2007, a turnover rate of 44%. Based on the principal’s reports, seven teachers left at the principal’s initiative and 12 exercised their right to transfer within BPS rather than remain with the school. Among the other departing teachers, five retired, while six left for non-teaching job opportunities within or outside the district. In addition, seven teachers were forced to leave due to certification issues.

Teacher Qualifications

Figure 12 presents English High’s 2006-2007 teacher licensure (96%) and qualifications (90%) data. Overall, its staff qualifications exceed district averages for non-exam, non-pilot schools, which were 91% and 86%, respectively. Further, English High’s staff qualifications, as measured by these indicators, exceeded those of previously established BPS pilot schools, in which 88% of teachers were licensed in their teaching assignment and 82% of core academic teachers were highly qualified in 2006-2007.

Figure 12: The English High School, Teacher Qualifications

	2006-2007
Licensed in Teaching Assignment	96%
Core Academic Teachers Highly Qualified	90%

¹² Note that teacher turnover data for English High School include teaching staff only. Turnover data for the other three schools include both teachers and student support staff.

E. Cross-School Observations of School Enrollment and Staffing

Following are observations drawn from a review of the four Commonwealth Pilot Schools' student enrollment and staffing data. These observations may help to inform the reader's understanding of these schools' similarities and differences, both in terms of their base characteristics and the nature and extent of changes that have resulted from implementation of their Design Plans.

Key Observations Regarding Student Enrollment

- Three of the schools reduced enrollment, with Duggan and English experiencing declines of 44% and 34%, respectively. This necessitated a change in Duggan's neighborhood school zone and reduction in slots for new freshmen and transfer students at English. Academy was not required to downsize, but intra-district school choice led to a 20% decline in enrollment.
- Putnam Vocational is unique among the four schools in that it is unable to re-assign its students within the district due to a lack of other vocational program options. Chapter 74 regulations may further complicate downsizing. These obstacles would likely be common to any vocational school that pursues Commonwealth Pilot School status.
- Two of the four schools have enrollment exceeding the guideline of 450 students. These schools, English and Putnam, are working to create more robust Smaller Learning Community (SLC) sub-structures to compensate.

Figure 13: Comparison of Change in Student Enrollment

	2006-2007	2007-2008	Change (count)	Change (Percent)
Academy Middle School, Fitchburg	462	368	-94	-20%
Duggan Middle School, Springfield	778	437	-341	-44%
Putnam V-T High School, Springfield	1,333	1,472	+139	+10%
The English High School, Boston	1,244	820	-424	-34%

Key Observations Regarding Student Demographics

- In 2006-2007, all four schools displayed poverty rates—as defined by free- or reduced-price lunch eligibility—of 69% or higher, topped by Duggan (81%) and Academy (79%). Preliminary data show the proportion of low-income students changed most substantially at Putnam and English, declining by seven and six percentage points, respectively.

Figure 14: Prevalence of Students from Low-Income Households

	School 2006-2007	School 2007-2008	Change (% points)
Academy Middle School, Fitchburg	77%	78%	+1
Duggan Middle School, Springfield	81%	78%	-3
Putnam V-T High School, Springfield	69%	62%	-7
The English High School, Boston	69%	63%	-6

- All four schools serve diverse populations, with between 71% and 96% non-white students in 2006-2007. Preliminary data suggest that Duggan has experienced the most substantial change in this characteristic, with a decline of five percentage points. The proportion of LEP students at Duggan also declined, by nine percentage points.

Figure 15: Student Race/Ethnicity (Proportion Non-White)

	School 2006-2007	School 2007-2008	Change (% points)
Academy Middle School, Fitchburg	71%	71%	-
Duggan Middle School, Springfield	87%	82%	-5
Putnam V-T High School, Springfield	86%	87%	+1
The English High School, Boston	96%	96%	-

Key Observations Regarding Student Mobility

- English High School displayed the highest rate of student turnover in 2006-2007, about doubling that of the other schools.

Figure 16: Single-Year Student Mobility Rates

Single-Year Mobility Rate	2006-2007
Academy Middle School, Fitchburg	21.1%
Duggan Middle School, Springfield	22.2%
Putnam V-T High School, Springfield	24.7%
The English High School, Boston	43.3%

Key Observations Regarding Teacher Counts and Student-Teacher Ratios

- Each school that decreased in enrollment also decreased in teaching staff. In each case, the percent reduction in staff was less than the percent reduction in enrollment. Similarly, the percent increase in staff at Putnam exceeded the percent increase in students.
- Accordingly, the student-to-teacher ratio improved (that is, declined) in all four schools and now hovers at about 10:1 at Academy, Duggan, and English, and at about 9:1 at Putnam. The greatest improvement is evident at English and Duggan, which were previously at 15.6:1 and 13.2:1, respectively.

Figure 17: Comparison of Change in Count of Teaching Positions

	2006-2007	2007-2008	Change (count)	Change (Percent)
Academy Middle School, Fitchburg	41	35	-6	-15%
Duggan Middle School, Springfield	57	44	-13	-23%
Putnam V-T High School, Springfield	138	167	29	21%
The English High School, Boston	85	78	-7	-8%

Figure 18: Comparison of Change in Student-Teacher Ratios

	2006-2007	2007-2008	Change (count)	Change (Percent)
Academy Middle School, Fitchburg	11.4 : 1	10.5 : 1	-0.9 : 1	-8%
Duggan Middle School, Springfield	13.2 : 1	9.9 : 1	-3.3 : 1	-25%
Putnam V-T High School, Springfield	10.0 : 1	8.8 : 1	-1.2 : 1	-12%
The English High School, Boston	15.6 : 1	10.5 : 1	-5.1 : 1	-33%

Key Observations Regarding Staff Turnover

- School leaders and staff at all four schools exercised new autonomy provided by the Initiative to make changes in staffing.
- Substantial turnover occurred within three of the schools, with Putnam (16%) being the exception. Duggan and Academy, the two middle schools, experienced the most dramatic turnover at 73% and 61%, respectively.
- Reasons for staff turnover differed across schools. The most striking contrast is between the two middle schools. Most of Academy’s turnover was initiated by teachers, whereas at Duggan, a majority of departing teachers left at the initiative of the principal. Regardless of the reasons behind this difference (the RIF in Fitchburg being one obvious factor), it may have implications for long-term outcomes.
- As Springfield’s only vocational school, many of Putnam’s staff could not be let go and re-assigned (or request re-assignment) within the district. It is unclear whether having this flexibility would have led to substantially higher turnover.

Figure 19: Comparison of End-of-Year Turnover (Teachers and Student Support Staff)

	2006-2007
Academy Middle School, Fitchburg	61%
Duggan Middle School, Springfield	73%
Putnam V-T High School, Springfield	16%
The English High School, Boston	44%

Key Observations Regarding Teacher Qualifications

- Rates at which teachers were licensed in the subjects they teach varied widely in 2006-2007, with rates at the Springfield schools substantially lower than rates at Academy or English.
- The same trend emerged with regard to the proportion of teachers in core subject areas who are highly qualified.
- Notably, “traditional” BPS pilot schools’ rates on these measures are lower than in Boston’s other non-pilot, non-exam high schools, creating a context for interpreting any changes that may be identified when 2007-2008 data become available.

Figure 20: Comparison of Teacher Qualifications

2006-2007	% Licensed in Teaching Assignment	% Core Academic Teachers Highly Qualified
Academy Middle School, Fitchburg	99.5%	99.5%
Duggan Middle School, Springfield	78%	66%
Putnam V-T High School, Springfield	76%	68%
The English High School, Boston	96%	90%

IV. Time for Instruction and Collaborative Planning

School schedules reflect strategic educational decisions, as they allocate the time available in each school day to various priorities. However, traditional public school settings commonly afford school leaders only limited opportunity to manage the school schedule, and many schools' principals and staff lament the difficulty of finding time for both instruction and the collaborative planning and professional development that supports effective instructional practice. In contrast, the scheduling autonomy afforded by the Commonwealth Pilot School model provides leaders with substantial discretion with regard to the development and structure of their school schedules, subject to the provisions of the school's Work Election Agreement (WEA), under which all staff on teachers' contracts must agree to work as a condition of employment.

This section explores changes to the scope and structure of the school day at each of the four schools, with a focus on instructional schedules and time for collaborative planning and professional development. For each school the 2006-2007 schedule is contrasted with the 2007-2008 schedule, highlighting immediate changes in response to school-level priorities. Analyses of instructional schedules highlight changes in students' time in learning, time in four core academic subjects, and time in "advisories," which are intended to strengthen students' sense of community and help them develop closer ties to a member of the school staff. While NCLB defines "core academic subjects" more broadly,¹³ the analysis of time presented in this report focuses specifically on mathematics, ELA, science and technology/engineering, and history/social studies.¹⁴ These are subjects in which all students in all four schools receive instruction and for which MCAS exams exist. For the purposes of this report, these four subjects constitute "core academic subjects."

Changes in the time available for teacher collaboration and professional development—jointly referred to as collaborative planning time—are analyzed in terms of both the total time available for these activities each week and the frequency of such collaborative planning time during a typical week's schedule. In this way, we capture changes in both the quantity and continuity of collaborative planning opportunities for staff who teach in core academic subject areas. A wide body of research suggests that increased collaborative planning time supports the development of a professional learning community, a central goal of the Commonwealth Pilot School model. The time available for collaboration and professional development is reported jointly because these activities are not always mutually exclusive and because the time devoted to each may fluctuate over the course of the year in response to school needs.

A. Academy Middle School, Fitchburg

Instructional Schedule

The limited amount of instructional time in public school schedules is frequently cited as a challenge to increased student achievement in Massachusetts. As shown in Figure 21, Academy Middle School expanded students' weekly time in learning¹⁵ by nearly six hours through two separate but interconnected mechanisms. First, the school used its scheduling autonomy to create a new weekly calendar, inclusive of three standard days and two alternative days. This innovation was developed in the Design Plan process and reflects a scheduling strategy employed by many schools in the Boston Pilot Schools Network, the model upon which the Commonwealth Pilot School initiative is based. In addition, while planning for its Commonwealth Pilot conversion, Academy learned

¹³ The NCLB definition includes English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

¹⁴ The subject classification "science and technology/engineering" naming convention is consistent with the State Curriculum Frameworks.

¹⁵ For the purpose of this analysis, time in learning includes all time in the daily school schedule, less time set aside for lunch.

that it had been awarded a grant through ESE’s Expanded Learning Time (ELT) initiative. ELT provides schools with additional funding to support an expanded school day (or year), enabling increased time in learning and time for faculty planning and professional development. Individual grant recipients determine how best to deploy these additional resources. Academy opted to use ELT funds to support increased time on learning during the standard school day and to provide additional programming after the standard school day ends.

The standard school day at Academy now affords 30 hours, 30 minutes of weekly time in learning, an increase of two hours and ten minutes over the previous year. If additional ELT-supported time after the standard school day is considered, weekly time in learning increases to 34 hours, 15 minutes – nearly six-hours more than the previous year. Teachers are not required to participate in ELT activities beyond the standard school day, as this time is not included in the school’s WEA. For this reason, Figure 21 presents time in learning for the standard school day and separately reports additional time in learning resulting from ELT after the standard school day ends.

It is important to note the critical role ELT funding played in leveraging an increase in time in learning during the standard school day. Without this funding, the school’s Design Plan called for an alternative schedule that would have resulted in a small decrease in weekly time in learning in order to accommodate the expansion of staff collaborative time.

Figure 21: Academy Middle School, Total Weekly Time in Learning

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
Time in the standard school day	28:20	30:30	+2:10
Additional ELT time after standard day	-	3:45	+3:45
Total	28:20	34:15	+5:55

Figure 22 presents a side-by-side view of the standard school schedule before and after conversion. In 2006-2007, Academy operated on a regular six-hour school day, with students attending school from 8:30 a.m. to 2:30 p.m. Monday through Friday. For 2007-2008, Academy’s regular school day was extended, but its weekly schedule also features two shorter “alternative” days for students. These alternative days provide create additional teacher meeting time, while longer regular school days support an overall increase in instructional time each week. This figure also describes additional time on learning provided by the ELT initiative after the standard school day. This includes 3:15 to 4:00 p.m. on Monday, Tuesday, and Friday, and 2:30 to 4:00 p.m. on Thursday. Overall, students attend school from 8:00 a.m. to 4:00 p.m. daily, with the exception of Wednesdays, when they finish at 12:45.

Figure 22: Academy Middle School, Schedule Comparison

	2006-2007	2007-2008
Regular day	Monday – Friday 8:30 a.m. to 2:30 p.m.	Mon, Tues, Friday Standard Day: 8:00 a.m. to 3:15 p.m. Additional ELT: 3:15 p.m. – 4:00 p.m.
Alternative days	n/a	Wednesday Standard Day: 8:00 a.m. to 12:45 p.m. No added ELT time Thursday Standard Day: 8:00 a.m. to 2:30 p.m. Additional ELT: 2:30 p.m. – 4:00 p.m.

Instructional Time in Core Academic Subjects

Figure 23 presents the amount of instructional time devoted to the four core academic subjects during the regular school day—mathematics, ELA, science and technology/engineering, and history/social studies—each week at Academy in 2006-2007 and 2007-2008. These data reveal a 36% increase in time for these subjects each week, as well as a redeployment of what was once evenly allocated time. The new schedule increases time for ELA and mathematics instruction substantially, while decreasing time devoted to science and technology/engineering, and history/social studies.¹⁶ It is notable that Academy’s principal, Susan Quick, would like to bring the time spent on ELA and mathematics into balance, but a lack of mathematics teachers in her ELT “enrichment cadre” has limited her ability to do this. When enrichment staff with mathematics expertise can be hired, Principal Quick plans to provide equal time to these subjects.

Figure 23: Academy Middle School, Weekly Time in Core Academic Subjects

Grades 6-8	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
ELA	4:31	10:10	+5:39	+125%
Mathematics	4:31	7:10	+2:39	+59%
Science and technology/engineering	4:31	3:35	-0:56	-21%
History/social studies	4:31	3:35	-0:56	-21%
Total	18:04	24:30	+6:26	+36%

In 2006-2007, Academy utilized a five-day rotating schedule comprised of six instructional blocks. For all grades, four of the six instructional blocks were dedicated to core academic subjects and one block was set aside for daily enrichment instruction. The remaining block was used to provide either MCAS preparation (grades 6-8) or mathematics enrichment (grade 5). On regular school days in 2007-2008, students in grades 6-8 receive 90 minutes of daily instruction in mathematics and ELA, plus an additional 60 minutes of ELA instruction taught by the school’s enrichment cadre (which includes some ELT staff).

Student Advisories

In addition to time in core academic subjects, Academy’s schedule includes time devoted to “student advisories.” Advisories allow small groups of students to meet with teachers on a routine basis and are intended to encourage the development of relationships between students and teachers, a focus of the pilot school model. Academy did not have an advisory program in 2006-2007, but implemented a daily advisory as part of its new design and allocated a portion of its summer professional development time to support its implementation.

In 2007-2008, Academy’s advisory blocks are 30 minutes long, except on Wednesday early-release days, when they are shortened to 10 minutes. This provides students with 2 hours and 10 minutes of advisory time weekly. All of Academy’s teachers are expected to participate in the advisory program, and school guidance counselors are engaged in an ongoing process of curriculum development for the advisory program, with the assistance of Katie Gray, a consultant from the Commonwealth Corporation’s Communities and Schools for Success (CS²) program, which is active in Fitchburg. Academy’s typical advisory group size is reportedly 10 to 12 students.

¹⁶ Note that science and technology/engineering and history/social studies focused classes are taught as half-year courses in 90-minute daily blocks in grades 7 and 8, but as daily 45-minute classes in grade 6 (these reflect regular school schedule days). Data in Figure 23 are weekly averages based on the full school year.

Time for Collaborative Planning-Related Activities

Time for collaborative planning provides an opportunity for teachers to exchange and acquire information, which can enhance instructional practice and increase awareness of students' needs. As shown in Figure 24, Academy added substantial new time for collaborative planning—inclusive of both common planning time and professional development—to its weekly schedule in 2007-2008. In 2006-2007, teacher schedules included an average of 1.5 collaborative planning meeting times per week, including 45 minutes of teacher team planning time each week, and monthly department and faculty meetings that were each 45 minutes in length. Academy's teachers also participated in full-day district workshops, which occurred on a less-than-monthly basis and are not included in these calculations.

In 2007-2008, teacher teams are scheduled to have three one-hour common planning sessions each week, plus a two-hour block of professional development on Wednesday, which is an early-release day for students. Grade-level teachers share the same common planning time block, during which their students receive instruction from the school's enrichment cadre. Academy's schedule allows its special education teachers to participate in team common planning time. The schedules of its enrichment teachers and its ELL teacher do not afford this opportunity.

Individual planning time provides teachers with time in the school day to plan their lessons, attend to administrative tasks, and complete other aspects of their work. Time for individual teacher planning and preparation remains unchanged at Academy this year, with 3 hours and 45 minutes per week provided through a daily 45-minute individual planning block. This is consistent with the requirements set out in Academy's WEA. These periods are coordinated such that all grade-level teachers have the same individual planning block, a scheduling approach that could enable teachers to spend additional discretionary time in collaborative activities, should they decide to do so.

Figure 24: Academy Middle School, Weekly Collaborative and Individual Planning Time¹⁷

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Collaborative planning time	1:08	5:00	+3:52	341%
Individual planning time	3:45	3:45	-	-

¹⁷ Calculations for all schools reflect time available to staff who teach in core academic subject areas and are inclusive of time in the schedule on a daily, weekly, bi-weekly, or monthly basis, adjusted to reflect weekly average totals.

B. Duggan Middle School, Springfield

Instructional Schedule

Duggan Middle School used its scheduling autonomy to extend the length of its regular day and to implement a shorter late-start day for students every Wednesday. However, as shown in Figure 25, weekly time in learning for Duggan students decreased by 1 hour and 15 minutes relative to 2006-2007. This reflects the school's decision to enhance the time available for teacher collaboration and development, which was considered essential to preparing Duggan's staff—73% of 2006-2007 staff are no longer with the school—to implement its Expeditionary Learning model. During interviews, the school's principal, Jonathan Swan, acknowledged an interest in creating more time for instruction in the school schedule and indicated that the school's newly formed Governing Board intends to consider options for increasing instructional time in 2008-2009.

Figure 25: Duggan Middle School, Total Weekly Time in Learning

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
Total weekly time in learning	31:15	30:00	-1:15

Figure 26 presents Duggan's 2006-2007 and 2007-2008 school schedules, which show that the school operated on a standard daily schedule in which students attended school from 7:45 a.m. to 2:30 p.m. Monday through Friday. For 2007-2008, the school's regular day was lengthened by 15 minutes, extending from 7:45 a.m. to 2:45 p.m., and its weekly schedule includes a late-start day on Wednesday for which students arrive at 10:15 a.m.

Figure 26: Duggan Middle School, Schedule Comparison

	2006-2007	2007-2008
Regular day	Monday – Friday 7:45 a.m. to 2:30 p.m.	Mon, Tues, Thurs, Friday 7:45 a.m. to 2:45 p.m.
Alternative day	n/a	Wed: 10:15 a.m. to 2:45 p.m.

Instructional Time in Core Academic Subjects

The amount of weekly instructional time devoted to each of the four core academic subjects at Duggan in 2006-2007 and 2007-2008 is presented in Figure 27. These data reflect a reallocation of instructional time such that all students receive daily instruction in each of the four core academic subjects. Instructional time in science and technology/engineering, and history/social studies, which were only taught on alternating days in 2006-2007, increased, while the total time devoted to mathematics and ELA each week decreased.

Figure 27: Duggan Middle School, Weekly Time in Core Academic Subjects

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
ELA	7:30	5:25	-2:05	-28%
Mathematics	7:30	5:25	-2:05	-28%
Science and technology/engineering	3:45	5:25	+1:40	+44%
History/social studies	3:45	5:25	+1:40	+44%
Total	22:30	21:40	- 0:50	-4%

In 2006-2007, Duggan utilized a four-block schedule that provided students with 90 minutes of daily instruction in mathematics, ELA, and enrichment, as well as 90 minutes of instruction in either science and technology/engineering or history/social studies. For 2007-2008, the school's schedule was restructured to include five daily instructional blocks, one for each of the four core academic subjects and one for enrichment classes, except on the Wednesday late-start day, which includes a brief all-school community meeting and four blocks dedicated to the core courses. The length of instructional blocks varies over the course of the week. Blocks are 75 minutes in duration on regular days, shortened to 65 minutes the two days each week on which advisories are held, and 45 minutes on Wednesday.

Student Advisories

Duggan did not have an advisory program in 2006-2007, but introduced it in 2007-2008 as part of its Design Plan. Its advisory, referred to as "crew time," is held twice weekly in 45-minute blocks, such that students spend a total of 90 minutes in advisory each week. Duggan teachers are required to lead an advisory group as part of the school's WEA, and the school has used a portion of both its summer and ongoing professional development time to support its implementation. Teachers use a prescribed curriculum, adapted from an established advisory program used in schools in Ohio. This curriculum reportedly emphasizes character-building and often focuses on the exploration of student-defined topics.

Time for Collaborative Planning-Related Activities

As shown in Figure 28, Duggan increased weekly time for collaborative planning-related activities by over three and a half hours in 2007-2008. In 2006-2007, the schedule provided two blocks of collaborative planning time each week: a 45-minute block for teacher team meetings during the school day and a 75-minute after school professional development block required by Springfield district policy.

2007-2008 schedules indicate that teachers have an average of 3.5 collaborative planning meetings each week. This includes two mandatory teacher team meetings each week, during which students have enrichment classes. One meeting is devoted to curriculum and instructional planning (65 minutes), while the other is focused on student support issues (75 minutes). Administrators observe these meetings to monitor implementation of intended agenda. Teachers also have two hours of departmental meeting and professional development time on the school's late-start day, as well as 2 hours and 30 minutes of bi-weekly after school professional development.

Enrichment and ELL teachers do not participate in the twice-weekly teacher team meetings, but may participate in planning sessions held on the Wednesday late-start day. Special education teachers who provide pull-out services engage in teacher team planning; those who teach in self-contained classrooms work as their own team and attend departmental meetings in the subject in which they have the greatest need for professional growth.

The time available for individual teacher planning decreased substantially at Duggan in the past year. The schedule now provides teachers with two individual planning blocks for preparation each week. Schedules are coordinated such that teachers on each team have the same block of time for individual planning, enabling teachers to use their planning blocks for collaborative purposes at their own discretion. Although agreements between teachers to use this time collaboratively are informal, Duggan's principal estimated that approximately one-third of teachers use individual planning time in this way.

Figure 28: Duggan Middle School, Weekly Collaborative and Individual Planning Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Collaborative planning time	2:00	5:35	+3:35	+179%
Individual planning time	6:00	2:20	-3:40	-61%

Peer Observation

Another strategy by which schools may create opportunities for teachers to learn from one another is through the implementation of formal peer observation programs. These programs allow teachers to observe one another for the purposes of professional development and growth, and may be a particularly important support for newer teachers.

In 2007-2008, Duggan introduced a formal peer observation program. The first round of school-wide peer observations, conducted in the fall, was facilitated by CCE coaches, and Duggan teachers are currently engaged in a second round. Teachers are required to participate, either by observing another teacher or by being observed. Observations are conducted not by one teacher, but by a small group of teachers, and are followed by time for reflection on characteristics of the lesson. Duggan's peer observations (also called "labs") may be interdisciplinary, which may ultimately support implementation of the integrative projects—or "learning expeditions"—that are central to the Expeditionary Learning model.

C. Putnam Vocational Technical High School, Springfield

Instructional Schedule

As shown in Figure 29 and Figure 30, time in learning remained unchanged at Putnam Vocational from 2006-2007 to 2007-2008, and the school continues to operate from 7:45 a.m. to 2:30 p.m. daily. While the design team investigated schedule design at other vocational schools during the pre-pilot planning process, leaders report that the complexities of scheduling at a large vocational school with highly differentiated smaller learning communities (SLCs) made changing the schedule impractical for this school year. Staff deployment in the SLC context was one of the issues they could not fully resolve. Further, reflecting on the instructional schedule defined in the Design Plan, leaders were concerned that it would result in a loss of time for mathematics and ELA instruction.

Notably, agenda and minutes of Putnam’s Governing Board meetings suggest that effective scheduling continues to be an important topic of discussion at Putnam administrative team meetings. If changes are proposed, they would be subject to faculty approval and incorporated into the school’s annual WEA. Principal McCaskill and another top administrator reported that substantive changes to the school schedule will require the assistance of a consultant skilled in the software that supports the school’s schedule, noting that this expertise is not readily available within the district.

Figure 29: Putnam V-T High School, Total Weekly Time in Learning

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
Total Weekly Time in Learning	31:15	31:15	0

Figure 30: Putnam V-T School, Schedule Comparison

	2006-2007	2007-2008
Regular day	Monday – Friday 7:45 a.m. to 2:30 p.m.	Monday – Friday 7:45 a.m. to 2:30 p.m.
Alternative day	n/a	n/a

Instructional Time in Core Academic Subjects

As is common in vocational-technical high schools statewide, Putnam students alternate between vocational and academic instruction every other week throughout the school year. To maintain comparability to the other Commonwealth Pilot Schools, Figure 31 presents the instructional time devoted to academic subjects on a weekly basis, averaged across two weeks (an academic week and a vocational week). As this figure shows, students in grades 9 and 10 receive 50% more instructional time in mathematics and ELA than students in grades 11 and 12. This is to remediate skill deficits remaining after middle school and to support proficiency in these subjects in advance of the grade 10 MCAS examinations. Note that “change columns” are not included in this table because instructional time in the core academic subjects remained unchanged at Putnam.

Figure 31: Putnam V-T High School, Weekly Time in Core Academic Subjects

		2006-2007 (hrs:mins)	2007-2008 (hrs:mins)
ELA	Grades 9, 10	5:23	5:23
	Grades 11, 12	3:35	3:35
Mathematics	Grades 9, 10	5:23	5:23
	Grades 11, 12	3:35	3:35
Science and technology/engineering		1:48	1:48
History/social studies		1:48	1:48
Total	Grades 9, 10	14:22	14:22
	Grades 11, 12	10:46	10:46

The daily schedule at Putnam is built around eight 43-minute blocks. During academic weeks, all students receive a daily double-block of mathematics and ELA and a single block of science and technology/engineering, and history/social studies. The remaining two blocks are allocated for a single elective and either physical education/health (grade 9) or integrated vocational and academic instruction through a “related subjects” course (grades 10-12) taught by vocational teachers. The related subjects block is designed to demonstrate the relevance of academic subjects to a given vocation. Students in grades 9 and 10 receive additional instruction in mathematics and ELA through a daily single block for each subject provided during their vocational (or “shop”) week.

Student Advisories

In addition to time in vocational and academic coursework, students at Putnam participate in 43 minutes of advisory time every other week. Advisories occur in small group settings of 10 to 12 students and follow a curriculum adapted from an advisory program implemented in Ohio, the same program adopted by Duggan Middle School. This advisory was first implemented at Putnam in 2005 as part of a smaller learning communities implementation grant, the funding for which recently expired. Although teacher participation was voluntary in the first year of implementation, advisories became mandatory for all teachers in 2006-2007. Putnam is continuing to implement this advisory program in 2007-2008.

Time for Collaborative Planning-Related Activities

In 2007-2008, Putnam doubled both the amount and frequency of time scheduled for teachers to engage in collaborative planning. As shown in Figure 32, mandatory collaborative planning time for Putnam teachers in 2006-2007 consisted of a single 60-minute weekly after school professional development block required under Springfield district policy. This time was reported to have been largely dedicated to content-focused professional development, and the only teachers required to engage in common planning time during the school day were grade 9 vocational teachers, who were given 86 minutes for this activity each week.

For the current year, Putnam added additional time for collaborative planning activities by requiring that all teachers—including teachers of academic and vocational courses, enrichment classes, special education students, and English language learners—remain after school for department meetings and content-focused professional development (60 minutes on Tuesdays) as well as SLC teacher meetings (60 minutes on Wednesdays). The school also has two other extended days for teachers, which are not included in estimates of collaborative planning time. The first of these is for providing extra help for students (can be done Monday or Friday), and the second is

dedicated to student support activities, including teacher led clubs and organizations and student service teams, which focus attention on students who are struggling.

Individual planning time at Putnam remains unchanged for 2007-2008. Teachers continue to receive a daily 43-minute planning block, which for grade 9 and 10 mathematics and ELA teachers is coordinated such that these teachers may engage in additional common planning on a discretionary basis. While leaders estimated that most grade 9 and 10 mathematics and ELA teachers used two of their five weekly blocks to work collaboratively in 2006-2007, they suggested that most teachers now rely on newly created after school time for such collaboration.

Figure 32: Putnam V-T High School, Weekly Collaborative and Individual Planning Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Collaborative planning time	1:00	2:00	+1:00	+100%
Individual planning time	3:35	3:35	-	0%

Peer Observation

In 2006-2007, Putnam implemented a peer observation pilot program for mathematics and ELA teachers. Teachers with two years of experience or less were required to participate by observing the classroom practices of veteran instructors and subsequently completing a brief “observations reflection” worksheet. To date, there has been no change in this program as a result of the Initiative; however, leadership intends to expand this observation program school-wide at some point in the near future, possibly in spring 2008.

D. The English High School, Boston

Instructional Schedule

As Figure 33 shows, weekly time in learning for students at English High increased by nearly four hours in 2007-2008; the result of an expansion of the regular school day and the creation of a weekly early-release day for students, which provides increased collaborative time for teachers. This substantial increase in student time in learning was facilitated through a 15.4% increase in teacher pay for 2007-2008, stipulated in the English High School WEA and supported through the Boston Public Schools' District's Superintendent's Schools program, which provides support to struggling BPS schools implementing ambitious school improvement plans.¹⁸

Figure 33: The English High School, Total Weekly Time in Learning¹⁹

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
The English High School	29:03	33:02	3:59

Figure 34 presents a comparative perspective of the English High schedule pre- and post-conversion. In 2006-2007, English operated on a daily student schedule beginning at 7:25 a.m. and ending at 1:45 p.m. However, students were released about one hour early every other Thursday (as per BPS district policy) to provide time for teacher professional development. In 2007-2008, the length of the regular school day was extended by 1 hour and 18 minutes, and an early-release day for students was implemented on a weekly basis, providing increased time for teachers' professional development and collaborative planning.

Figure 34: The English High School, Schedule Comparison

	2006-2007	2007-2008
Regular day	Monday – Friday 7:25 a.m. to 1:45 p.m.	Monday – Thursday 7:45 a.m. to 3:23 pm
Alternative day	Thurs: 7:25 a.m. to 12:41 p.m. (bi-weekly)	Fri.: 7:45 a.m. to 12:45 p.m.

Instructional Time in Core Academic Subjects

Figure 35 presents the average weekly instructional time devoted to core academic subjects, taking into account the school's early-release day. These data indicate that the total time devoted to these four subjects did not change significantly, decreasing by 2%, but was redeployed such that students now receive equal amounts of instruction in each of these subjects every day throughout the school year. As a result, time in science and technology/engineering, and history/social studies—which were previously one-semester courses—increased, while time in mathematics and ELA decreased. These totals describe the base schedule within the school and do not account for individual students' elective choices. Individual student schedules may include additional time for any of these subjects.

¹⁸ Boston Public Schools Back-to-School 2007 Fact Sheet. Available at <http://boston.k12.ma.us/bps/news/schoolfacts07.pdf>.

¹⁹ 2006-2007 total weekly time in learning for English High School represents average bi-weekly time. Per district policy, the school had one early-release day every other week.

Figure 35: The English High School, Weekly Time in Core Academic Subjects

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
ELA	6:41	4:56	-1:45	-26%
Mathematics	6:41	4:56	-1:45	-26%
Science and technology/engineering	3:21	4:56	+1:35	47%
History/social studies	3:21	4:56	+1:35	47%
Total	20:04	19:44	- 0:20	-2%

In 2006-2007, the school's daily schedule was built around four instructional blocks of approximately 80 minutes, which were shortened to between 62 and 65 minutes on bi-weekly early-release days. For 2007-2008, the schedule was modified to include six shorter blocks. As a result, students now receive instruction in all four core academic subjects every day, with the two remaining blocks providing time for electives, including AVID, an initiative adopted by the BPS that uses a curriculum focused on college awareness, preparation, and study skills. This program is open to students in grades 9 and 10. English High's new instructional blocks are approximately 69 minutes long on regular days (twice weekly), 59 minutes on days on which advisories are held (two times per week), and 42 minutes on early-release days (once per week).

Student Advisories

English High implemented an advisory program in 2007-2008 as part of its Design Plan. The school schedule now provides students with two 57-minute advisory periods each week. All teachers are required to lead an advisory group. School staff researched possible advisory models and elected to use an advisory curriculum developed for use by the Chicago Public Schools. It is actively monitoring the advisory program and working with its CCE consultant to develop its own program. At present, advisories reportedly focus equally on building relationships, and on developing and supporting academic goals. The English High PD calendar currently allocates one 60-minute professional development block each month to reflection and training related to advisories, which is consistent with the school's Design Plan.

Time for Collaborative Planning-Related Activities

As shown in Figure 36, scheduled time for collaborative planning-related activities more than tripled at English in 2007-2008. In 2006-2007, the schedule provided for department meetings and professional development on bi-weekly early-release days, as well as through weekly collaborative planning time held during the school day as part of the school's Collaborative Coaching and Learning program (CCL). Teachers alternated between active engagement in CCL—which brought groups of teachers together for coaching and to share practices—and time for less structured, individual reflection. It is estimated that staff typically spent between 45 and 90 minutes engaged in CCL each week.

In 2007-2008, teacher schedules include five collaborative planning blocks each week, including four for content-area teacher team meetings. The length of these team meeting blocks varies, but they provide just under four hours of planning time each week. The fifth block occurs during the school's new weekly early-release day and it is sub-divided into time for professional development (60 minutes) and department meetings (80 minutes). All teachers are required to engage in these collaborative planning activities, as per the school's WEA. Special education teachers and teachers who work with English language learners are reported to meet regularly with content-area peers.

English also added individual planning time to its teacher schedules. In 2006-2007, teachers were allotted approximately 42 minutes for planning each day, yielding 3 hours and 40 minutes of time each week. For 2007-2008, leaders report that teachers have one full period each day for individual planning, just under 5 hours of individual planning time per week.

Figure 36: The English High School, Weekly Collaborative and Individual Planning Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Collaborative planning time	1:45	6:20	+4:35	+262%
Individual planning time	3:40	4:56	+1:16	+35%

Peer Observation

English had a peer observation program in place in 2006-2007. However, the program was not fully implemented, and it was reported that relatively few teachers conducted observations. Peer observations at English are anticipated to occur on a weekly basis and are intended to be mandatory for all staff, but full implementation is not planned for the current academic year.

E. Cross-School Observations of Time for Instruction and Collaborative Planning

The following series of figures (Figure 37 through Figure 42) provide a comparative perspective on changes to school instructional schedules and faculty collaborative planning and professional development time within the four Commonwealth Pilot Schools. These changes may inform the reader's understanding of the context in which Design Plans are being implemented and in which future student achievement outcomes are realized.

Key Observations Regarding School Schedules and Weekly Time in Learning

- Academy, Duggan, and English modified their daily operational schedules from 2006-2007 to 2007-2008, largely in accordance with their Design Plans. Putnam's leaders felt the new schedule proposed in its Design Plan was unworkable and elected not to implement that schedule in 2007-2008.
- New schedules implemented by Academy, Duggan, and English reflect a common approach whereby the length of the regular school day is increased while one or more shortened "alternative" days are created to allow regular time for all staff to engage in collaborative planning and professional development.
- In 2007-2008, schedules at all four schools provide at least 30 hours per week in time on student learning, inclusive of student advisory sessions.
- Schedule changes enabled Academy and English to increase students' time in learning. Both received additional funds to support longer school days. Academy received an ESE ELT grant, while teachers at English received a 15.4% increase in pay funded through the BPS Superintendent's Schools program.
- Total time in learning did not increase at either of the Springfield schools, although additional out-of-school time was added for teachers.

Figure 37: Comparison of Change in Weekly Time in Learning

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
Academy Middle School, Fitchburg (standard day)	28:20	30:30	+2:10
(including additional ELT time)	-	34:15	+5:55
Duggan Middle School, Springfield	31:15	30:00	-1:15
Putnam V-T High School, Springfield	31:15	31:15	0
The English High School, Boston	29:03	33:02	+3:59

Key Observations Regarding Instructional Time in Core Academic Subjects

- Academy Middle School was the only school to increase total instructional time devoted to the four core academic subjects. The ELT program grant is central to this increase.
- Three schools changed their allocation of time to core academic subjects. Duggan and English moved to balance the time devoted to each of these subjects—increasing time for science and technology/engineering, and history/social studies—while Academy increased time for ELA and mathematics, at the expense of these other subjects.
- At Putnam, students alternate between vocational and academic courses each week. Through the inclusion of a daily block of ELA and mathematics instruction during vocational weeks, Students in grades 9 and 10 receive time in mathematics and ELA similar to what students receive at English and Duggan.

Figure 38: Comparison of Weekly Time in Core Academic Subjects

School		2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
English Language Arts	Academy Middle School	4:31	10:10	+5:39	+125%
	Duggan Middle School	7:30	5:25	-2:05	-28%
	Putnam VTHS (grades 9 and 10)	5:23	5:23	0	0%
	(grades 11 and 12)	3:35	3:35	0	0%
	The English High School	6:41	4:56	-1:45	-26%
Math	Academy Middle School	4:31	7:10	+2:39	+59%
	Duggan Middle School	7:30	5:25	-2:05	-28%
	Putnam VTHS (grades 9 and 10)	5:23	5:23	0	0%
	(grades 11 and 12)	3:35	3:35	0	0%
	The English High School	6:41	4:56	-1:45	-26%
Science and technology/ engineering	Academy Middle School	4:31	3:35	-0:56	-21%
	Duggan Middle School	3:45	5:25	+1:40	+44%
	Putnam VTHS	1:48	1:48	0	0%
	The English High School	3:21	4:56	+1:35	47%
History/ social studies	Academy Middle School	4:31	3:35	-0:56	-21%
	Duggan Middle School	3:45	5:25	+1:40	+44%
	Putnam VTHS	1:48	1:48	0	0%
	The English High School	3:21	4:56	+1:35	47%
Total	Academy Middle School	18:04	24:30	+6:26	+36%
	Duggan Middle School	22:30	21:40	- 0:50	-4%
	Putnam VTHS (grades 9 and 10)	14:22	14:22	0	0%
	(grades 11 and 12)	10:46	10:46	0	0%
	The English High School	20:04	19:44	- 0:20	-2%

Key Observations Regarding Student Advisories

- All four schools now have student advisory programs. Only Putnam used student advisory in 2006-2007. Advisories are held on a daily (Academy), weekly (Duggan and English) or bi-weekly (Putnam) basis. Weekly time for advisory ranges from 21.5 minutes at Putnam to 2 hours and 10 minutes at Academy.
- Teacher participation in advisory programs is mandatory at all four schools. Each uses a prescribed advisory curriculum and at least two schools, English and Academy, are working to develop their own advisory curricula going forward to meet the specific needs of their students.
- Professional development has been an important implementation support for schools with new advisory programs. These schools have dedicated a portion of their summer and/or ongoing professional development time to preparing teachers to deliver advisories.

Figure 39: Comparison of Weekly Advisory Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)
Academy Middle School, Fitchburg	0:0	2:10	+2:10
Duggan Middle School, Springfield	0:0	1:30	+1:30
Putnam V-T High School, Springfield	0:22	0:22	-
The English High School, Boston	0:0	1:54	+1:54

Key Observations Regarding Time for Collaborative Planning Activities

- The total time available for collaborative planning activities (including staff meetings and professional development) at least doubled at all four schools, with Academy, Duggan, and English adding more than four hours per week.
- The continuity and frequency of collaborative planning opportunities also increased, as schools used scheduling autonomy to integrate blocks of time for these activities into their weekly schedules.
- Teachers at all four schools now have time for collaborative planning-related activities at least twice each week, led by English with five per week. The frequency of these activities expanded at all four schools.
- Time for these activities was created through the introduction of early-release or late-start days for students, the expansion or introduction of extended days for teachers, and the deployment of enrichment teachers to facilitate teacher meeting time during the school day.

Figure 40: Comparison of the Weekly Amount of Collaborative Planning Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Academy Middle School, Fitchburg	1:08	5:00	+3:52	341%
Duggan Middle School, Springfield	2:00	5:35	+3:35	179%
Putnam V-T High School, Springfield	1:00	2:00	+1:00	100%
The English High School, Boston	1:45	6:20	+4:35	262%

Figure 41: Comparison of the Frequency of Collaborative Planning Time, in Average Blocks per Week

	2006-2007	2007-2008	Change	% Change
Academy Middle School, Fitchburg	1.5	4	+2.5	+166%
Duggan Middle School, Springfield	2	3.5	+1.5	+75%
Putnam V-T High School, Springfield	1	2	+1	+100%
The English High School, Boston	1.5	5	+3.5	+233%

Key Observations Regarding Time for Individual Teacher Planning

- Schools did not exhibit a consistent approach to individual teacher planning time, which increased at English, decreased at Duggan, and remained the same at Academy and Putnam.
- At both middle schools, individual planning blocks are coordinated to create a planning block for all teachers at each grade level, during which time enrichment teachers work with their students. This strategy allows grade-level teachers to spend additional time in collaboration, at their discretion.

Figure 42: Weekly Teacher Individual Planning Time

	2006-2007 (hrs:mins)	2007-2008 (hrs:mins)	Change (hrs:mins)	% Change
Academy Middle School, Fitchburg	3:45	3:45	-	0%
Duggan Middle School, Springfield	6:00	2:20	-3:40	-61%
Putnam V-T, Springfield	3:35	3:35	-	0%
The English High School, Boston	3:40	4:56	+1:16	+35%

V. Baseline Student Indicators and Achievement

The Commonwealth Pilot Schools initiative is intended to introduce substantive reform to schools struggling with persistently low student achievement. The goal is to improve student learning through the development of more effective school communities. This report previously summarized changes in student enrollment, school staffing, time in learning, and time for collaborative planning and professional development. To varying extents, these changes have been enabled or facilitated by the adoption of the Commonwealth Pilot Schools model and its operating guidelines, which provide public schools with what are generally acknowledged as unusual levels of autonomy in these and other operational areas.

This section presents recent trends in student outcomes data maintained by ESE. These include student indicators such as attendance, retention, and dropout rates, as well as trends in school-level student achievement on selected Massachusetts Comprehensive Assessment System (MCAS) examinations. These data present a preliminary baseline of student outcomes against which future school-level outcomes can be measured. Other data, such as district- or school-employed formative assessments, may provide a useful complement to these indicators and MCAS data, provided they are available on both a pre- and post-intervention basis.

A. Key Considerations for Long-Term Evaluation

Long-term evaluation of the Initiative will require the research focus to shift from changes in capacity and practice—such as the view of immediate impacts on school staffing and schedules featured in previous sections of this report—to changes in the effectiveness of the four schools receiving the intervention. As such, standardized measures of student achievement, such as MCAS scores, represent important indicators of long-term success. Indeed, MCAS achievement was central to the Board of Elementary and Secondary Education’s identification of these schools as candidates for the designation of “chronically underperforming.”

Given the findings of this report—that student populations at two schools were substantially reduced to comply with program guidelines, that a third school lost substantial enrollment due to intra-district school choice, and that the fourth has recently increased enrollment substantially—it is plausible that changes in student outcomes may be explained by factors other than the quality of educational experience offered by these schools. It will therefore be vital to continue to examine ongoing changes in the student populations at each of these schools.²⁰ This includes their demography, but also their past MCAS achievement at earlier grade levels.

For example, a comparison of English High’s 2008-2009 grade-9 student cohort’s performance on grade 7 ELA and grade 8 mathematics MCAS tests to the school’s past 9th-grade cohorts’ performance on those same tests would provide insight into the extent that future changes in grade MCAS performance are likely to be school-practice driven as opposed to student-cohort driven. Similarly, identified changes in the resource inputs available to each school—such as staff levels, programs, and technical assistance—may also illuminate or complicate the discussion of school-level outcomes. As presented in this report, student-to-teacher ratios have improved at all four schools, but improved most dramatically—from 15.6 : 1 to 10.6 : 1—at English High School, while Academy Middle School received an Expanded Learning Time (ELT) grant from ESE, bringing new instructional resources (in the form of both staff and time) to that school.

²⁰ Research shows a strong correlation between the characteristics of a community/student population and MCAS achievement. The Community Effects Factor (CEF) model was among the first to confirm the impact of demographics on MCAS achievement. The CEF was developed by Dr. Robert Gaudet and first presented in *Education Achievement Communities: A New Model for “Kind of Community” in Massachusetts Based on an Analysis of Community Characteristics Affecting Educational Outcomes*, May 1998, University of Massachusetts, Amherst.

B. Student Indicators

ESE maintains a range of data that are referred to as “student indicators.” These include student attendance, retention rates, dropout rates, and cohort graduation rates, as well as in- and out-of-school suspension rates. ESE’s student indicators are important baseline reference points for program evaluation because they may influence student outcomes (as would be the case with attendance and suspension rates) or serve as outcome measures (retention and graduation rates). This section summarizes available data for four of these six measures. Concerns regarding the reporting of student suspension data by schools in some districts created reliability concerns, resulting in their omission from this report. Suspension data may ultimately be considered in the Initiative’s outcomes analysis if and when these reliability concerns are resolved.

The following tables present school-level indicators data for 2005-2006, with comparisons to district averages for schools that serve the same grade levels. Comparison to district averages over time will allow school-level changes to be assessed in the context of district trends. Four-year trends in indicators dating back to 2002-2003 appear, as available, in Appendix A. ESE indicators data are available at <http://profiles.doe.mass.edu/indicators.aspx>.

Student Attendance

Figure 43 presents 2006-2007 student attendance data and reveals that all four schools have attendance rates below the state average of 95%. In comparison to district averages for schools serving the same grade levels, Putnam displayed a modestly higher attendance rate than other SPS high schools, while Academy Middle School displayed a modestly lower rate than other FPS middle schools. The 2006-2007 attendance data were released as this report was being prepared, in advance of student retention and dropout data.

Figure 43: Student Attendance Rates

	School 2006-2007	District 2006-2007	Difference (% points)
Academy Middle School, Fitchburg	92%	95%	-3
Duggan Middle School, Springfield	89%	89%	0
Putnam V-T High School, Springfield	87%	84%	+3
The English High School, Boston*	84%	85%	-1

* Boston Public Schools mean omits exam and pilot schools. BPS Pilot high school mean = 89%.

Student Retention

Figure 44 presents student retention rates for 2005-2006, the last year for which these data were available. A school’s student retention rate is the percentage of enrolled students who were repeating the grade in which they were enrolled the previous year. Retention rates were in line with the statewide average of 3% at three of the four schools. Putnam displayed a substantially lower grade-retention rate than other SPS high schools, while rates at English were higher than at other non-exam, non-pilot BPS high schools.

Figure 44: Student Retention Rates ²¹

	School 2005-2006	District 2005-2006	Difference (% points)
Academy Middle School, Fitchburg	4%	2%	-2
Duggan Middle School, Springfield	4%	5%	-1
Putnam V-T High School, Springfield	4%	13%	-9
The English High School, Boston*	21%	15%	+6

* Boston Public Schools mean omits exam and pilot schools. BPS Pilot school mean = 11%.

Figure 45 presents high school and district dropout rates for 2005-2006, the last year for which these data were available. Rates reflect the percentage of students in grades 9-12 who dropped out of school between July 1, 2005 and June 30, 2006 and who did not return to school by the following October 1. Dropouts are defined as students who leave school prior to graduation for reasons other than transfer to another school. Student dropout rates for the two high schools exceeded the statewide average of 3%; however, both Putnam and English posted rates below the average of other high schools in their district.

Figure 45: Student Dropout Rates

	School 2005-2006	District 2005-2006	Difference (% points)
Putnam V-T High School, Springfield	6%	8%	-2
The English High School, Boston*	10%	14%	-4

* Boston Public Schools mean omits exam and pilot schools. BPS Pilot school mean = 9%.

Figure 46 presents 2006-2007 “four-year adjusted cohort graduation rates” for English High School and Putnam Vocational Technical High School. These adjusted graduation rates reflect the percentage of students who were enrolled in the school at the start of ninth grade who went on to graduate from the school with a regular high school diploma within 4 years. Cohort graduation rates, calculated by ESE, account for students who transfer out of the school. ESE’s “adjusted” calculation, presented in Figure 46, omits students who transferred in to the school subsequent to the initial establishment of the cohort. At both schools graduation rates were slightly below district averages. Putnam met the state AYP target of 55%, while English fell slightly short of this target.

Figure 46: Four-Year Adjusted Cohort Graduation Rates

	School 2006-2007	District 2006-2007	Difference (% points)
Putnam V-T High School, Springfield	57%	60%	-3
The English High School, Boston*	54%	56%	-2

* Boston Public Schools mean omits exam and pilot schools. BPS Pilot school mean = 79%.

²¹ High school students are retained at substantially higher rates than are students in other grades. In 2005-2006, 4.5% of students in grades 9 through 12 were repeating the grade they were in the previous year, compared with only 1.5% of students in grades 1 through 8. According to ESE grade retention reports, vocational technical schools tend to have lower retention rates, but it may be notable that Putnam’s 4% retention rate in 2005-2006 represents a substantial decrease, as its retention rate at Putnam was 18% in each of the two previous years. See Appendix, figure 70, for trends data for all four schools.

C. MCAS Achievement

The Massachusetts Comprehensive Assessment System (MCAS) defines critical educational content and skill goals in four core academic subjects. MCAS examinations, which are aligned with state curriculum frameworks in these subject areas, initially focused on English language arts and mathematics at specific grade levels, and have recently expanded to include tests focused on science and technology/engineering, and on history and social science, as well as testing a larger number of grade levels. This section focuses on the MCAS achievement of the four schools over a four-year period from academic calendar year 2002-2003 through 2006-2007, the year prior to Commonwealth Pilot conversion. MCAS exam dates are referred to by the end-year of the academic calendar year. That is, exams administered in academic calendar year 2006-2007 are referred to as the 2007 exams.

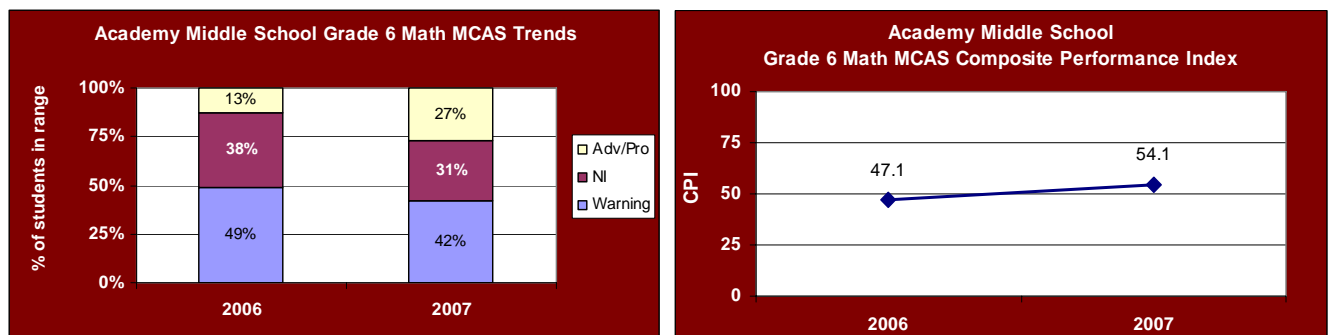
This section focuses on the MCAS tests for which the longest historical basis is in place and which have longest been included in AYP calculations. Accordingly, this section provides an overview of each school's overall achievement on selected ELA and Mathematics MCAS exams. In the case of middle schools, this includes the grade 6 Mathematics, grade 7 ELA, and grade 8 Mathematics exams. For high schools, it includes the grade 10 Mathematics and ELA exams. All trends charts combine the categories advanced and proficient, to simplify visual presentation. This is also an acknowledgement that, in many cases, the proportion of students scoring in the advanced range was negligible.

Academy Middle School

Figure 47 presents Academy Middle School's grade 6 Mathematics MCAS results from 2006 to 2007. The limited historical perspective is explained by the fact that grades 5 and 6 were added to the school in 2005-2006, before which Academy served grades 7 and 8. These data suggest that while overall achievement levels are quite low, the school did experience a single-year increase in the proportion of students scoring in the "advanced/proficient" (Adv/Pro in chart) range. The proportion of students in the "warning" and "needs improvement" (NI) categories show a corresponding decline. NI constitutes a passing score on MCAS, but all schools are expected to support all students' efforts to gain proficiency as measured by MCAS. The proportion of students scoring in the "advanced" range increased from 1% to 2%.

This year over year progress toward proficiency is confirmed by an increase in the schools Composite Performance Index (CPI) score. The CPI is a calculation used to summarize student MCAS achievement and illustrate progress toward proficiency.²²

Figure 47 A and B: Academy Middle School Grade 6 Mathematics



²² For a more detailed explanation of how CPI is calculated, please refer to the MA ESE "School Leaders' Guide to the 2007 Adequate Yearly Progress (AYP) Reports" (pp. 4-6).

Figure 48 provides a four-year perspective on Academy’s school-level achievement on the grade 7 ELA MCAS exam. Trends on this test are generally negative, with a steadily decreasing proportion of students scoring in the “advanced/proficient” range, and a greater proportion of students falling into the “warning” range in 2007 than in 2004. The proportion of students scoring in the “advanced” range fell from 5% in 2004 to zero in 2007. These trends are confirmed by Academy’s four-year CPI trends for this exam.

Figure 48 A and B: Academy Middle School Grade 7 ELA

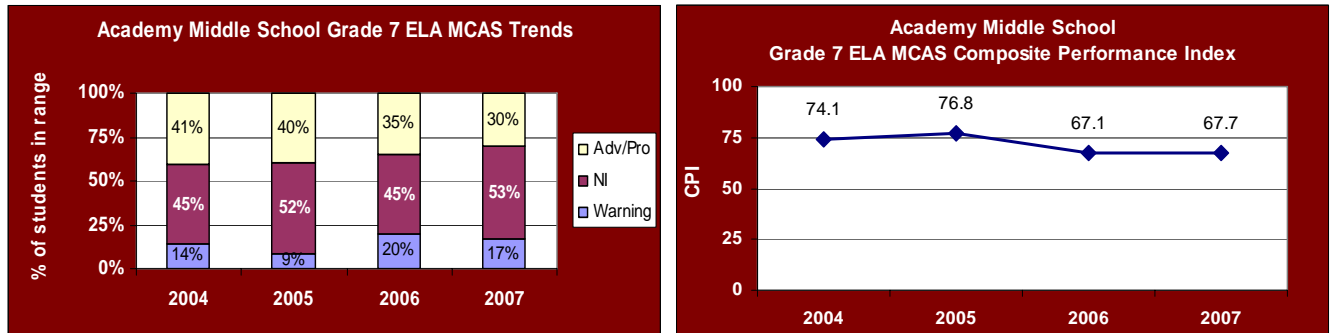
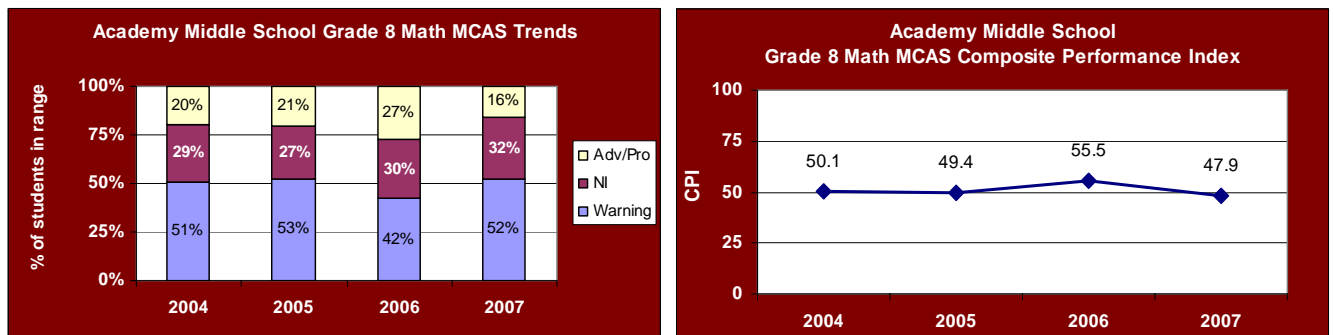


Figure 49 presents Academy’s school-level achievement on the grade 8 Mathematics MCAS exam. Trends on this test are mixed, with 2007 achievement at or below the level of achievement attained in 2004. The proportion of students who scored in the “advanced” range fell from 7% in 2004 to 1% in 2007. This mixed performance is confirmed by Academy’s four-year CPI trends for this exam, with particular weakness in 2007.

Figure 49 A and B: Academy Middle School Grade 8 Mathematics



Duggan Middle School

Figure 50 presents Duggan Middle School grade 6 Mathematics MCAS results from 2004 to 2007. These data suggest that 2007 was a year of modest progress, but from an extremely low baseline in 2006 when nearly 4 of 5 students earned a “warning” on the examination and very few students attained a score of “advanced/proficient.” These trends are also reflected in Duggan’s four-year CPI results for this exam.

Figure 50 A and B: Duggan Middle School Grade 6 Mathematics

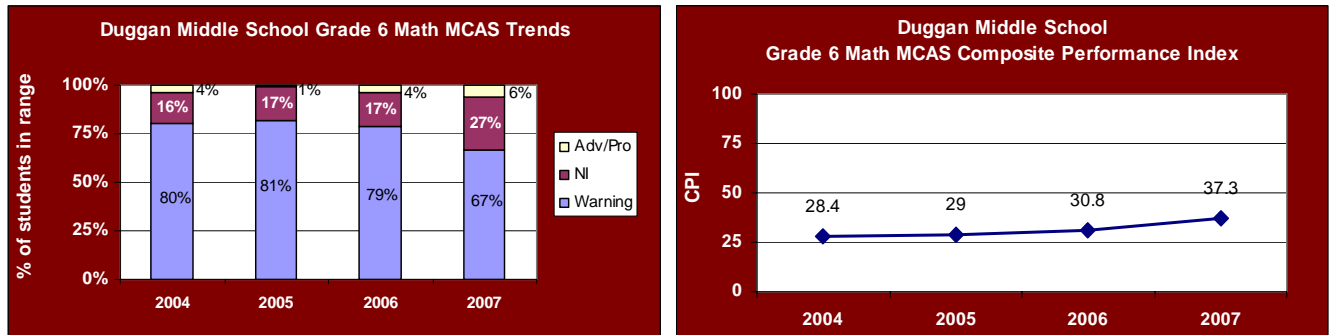


Figure 51 presents Duggan Middle School grade 7 ELA MCAS results, which show no discernible trend toward improvement over the course of four years, with achievement in 2004 and 2007 closely matched by category. In comparison, 2005 and 2006 were down years with respect to achievement on this test. This conclusion is supported by Duggan’s four-year CPI trend for this exam. Few students attained a score of “advanced” over this time period.

Figure 51 A and B: Duggan Middle School Grade 7 ELA

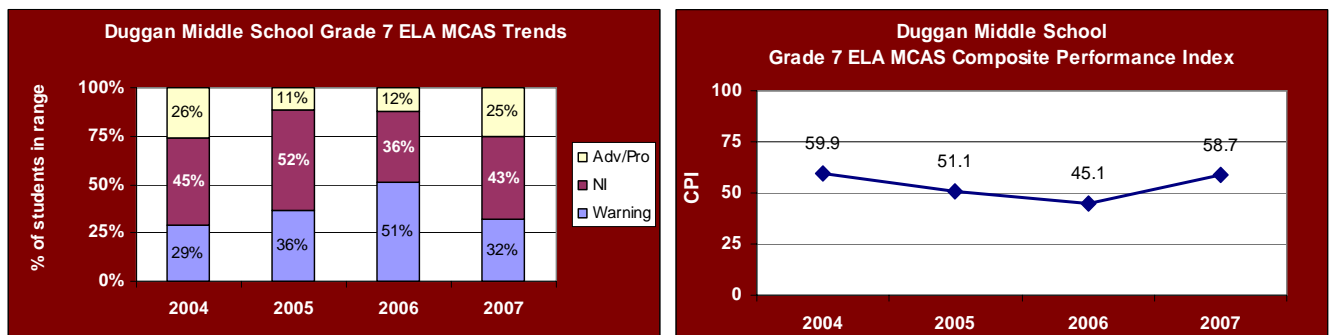
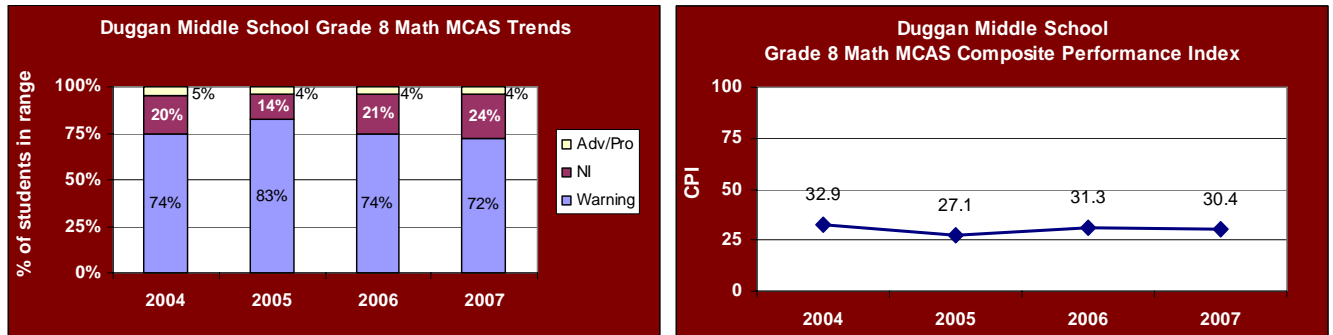


Figure 52 presents Duggan’s school-level achievement on the grade 8 Mathematics MCAS exam. The data reveal no substantive trend toward improvement over the course of four years. Consistent with grade 6 Mathematics results, the baseline of student performance is very low, with about three of every four students earning a “warning” and very few students attaining a score of “advanced” or “proficient.” Again, this lack of improvement is confirmed by Duggan’s four-year CPI trend for this exam.

Figure 52 A and B: Duggan Middle School Grade 8 Mathematics



Putnam Vocational Technical High School

Figure 53 presents Putnam’s school-level achievement on the grade 10 ELA MCAS exam. These data reveal steady improvement over the course of four years, during which the proportion of students receiving a failing score declined from 39% to 16%. The proportion of students scoring in the “advanced” range remained in the vicinity of 1% over time. This improvement is also evident in Putnam’s four-year CPI trend for this exam.

Figure 53 A and B: Putnam V-T High School Grade 10 ELA

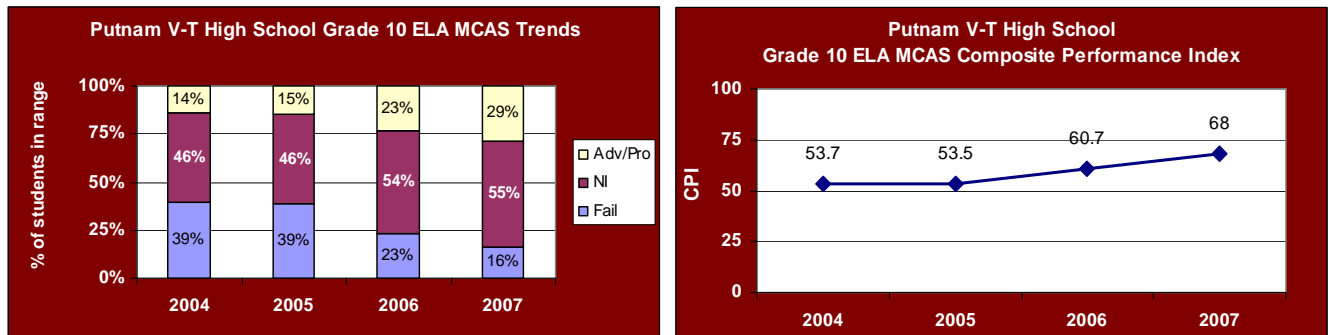
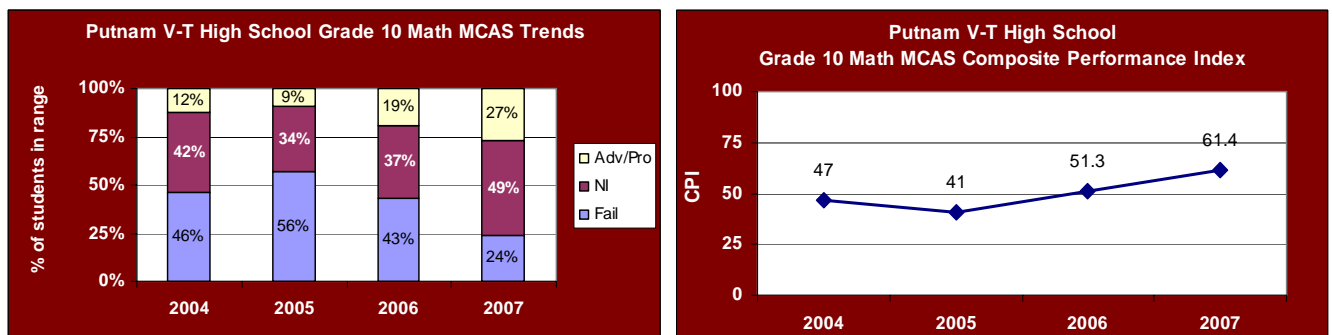


Figure 54 presents Putnam’s school-level achievement on the grade 10 Mathematics MCAS exam. Again, these data reveal steady improvement over the course of four years, with the proportion of students receiving a failing score declining from a high of 56% in 2005 to 24% two years later. The proportion of students scoring in the “advanced” range increased from a low of 1% in 2005 to 5% in 2007. Again, improvement is also evident in Putnam’s four-year CPI trend for this exam.

Figure 54 A and B: Putnam V-T High School Grade 10 Mathematics



The English High School

Figure 55 presents English High’s school-level achievement on the grade 10 ELA MCAS exam. These data reveal steady improvement over the course of four years, with the proportion of students receiving a failing score halved from 34% to 17%. As at Putnam, the proportion of students scoring in the “advanced” range remained in the vicinity of 1% over that time. Progress toward proficiency is evident in English High’s four-year CPI trend for this exam.

Figure 55 A and B: The English High School Grade 10 ELA

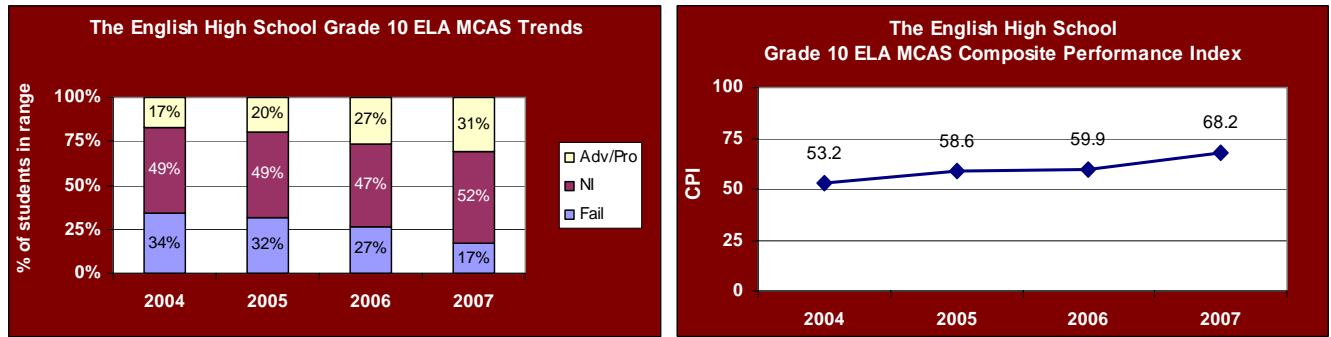
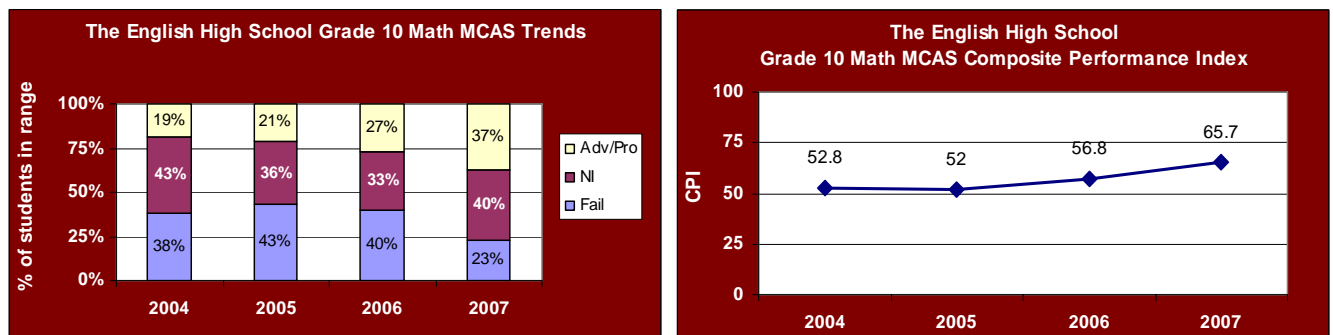


Figure 56 presents English High’s school-level achievement on the grade 10 Mathematics MCAS exam. Again, these data reveal progress over the course of four years, with the proportion of students receiving a failing score declining from a high of 43% in 2005 to 23% in 2007. Notably, the proportion of students scoring in the “advanced” range increased each year, from a low of 3% in 2004 to 14% in 2007. Improvement is also evident in English High’s four-year CPI trend for this exam.

Figure 56 A and B: The English High School Grade 10 Mathematics



VI. Summary Findings and Next Steps

Summary Findings

In January 2008, the Commonwealth Pilot School initiative was at the mid-point of its first year. Substantial changes had been implemented at the four participating schools: Academy Middle School in Fitchburg, The English High School in Boston, and Duggan Middle School and Putnam Vocational Technical High School in Springfield. New autonomies had allowed the schools to alter their size, staff, schedule, time on core content, and level of teacher collaboration, and to implement changes that build relationships among teachers and students.

- Three schools experienced substantial reductions in enrollment. Although English and Putnam maintained enrollment in excess of program guidelines, both schools enhanced existing Smaller Learning Community structures. Enrollments declined at Duggan by 44% and at English by 34% in accordance with school Design Plans. Academy's enrollment decreased by 20% due intra-district school choice. Putnam increased enrollment by 10%.
- School leaders exercised new autonomy over staffing, releasing some teachers and redeploying resources to staff new positions essential to their plans. At the same time, many teachers exercised their right to transfer rather than remain with their old schools. Fitchburg experienced a district-wide reduction in force that prevented Academy's principal from removing staff with professional status. Overall, total staff turnover ranged from 16% at Putnam to 73% at Duggan.
- Schools modified their schedules, resulting in increased weekly time in learning for students at Academy (5 hrs. 55 min.) and English (3 hrs 59 min.), and decreased time at Duggan (-1 hr. 15 min.). There was no change at Putnam. Available time at Academy was bolstered by an Expanded Learning time grant. New schedules at Academy, Duggan, and English reflect a similar approach: the length of most regular school days was increased, while one or more shortened "alternative" days were implemented each week to create collaborative learning time. Schedules may continue to evolve, particularly at Duggan and Putnam.
- Academy, Duggan, and English used new scheduling autonomy to change the time devoted to four core academic subjects: English language arts (ELA), mathematics, science and technology/engineering, and history/social studies. Duggan and English moved to equalize time devoted to each of these four subjects each week (5 hrs. 25 min. and 4 hrs. 56 min., respectively). Academy changed a previously balanced schedule, reducing time for science and technology/engineering and history/social studies by a combined 1 hr. 52 min., while expanding time for ELA and mathematics by 8 hrs. 18 minutes. Weekly time on these four subjects remained unchanged at Putnam, a large vocational school with a complex schedule.
- Collaborative planning time, defined to include faculty and team meetings, as well as professional development, increased substantially at all four schools. Weekly collaborative planning time now ranges from 2 hours at Putnam to 6 hours 20 minutes at English. All four schools increased the frequency of these meetings and now have at least two per week (at Putnam) ranging up to five per week (at English).
- In order to foster meaningful relationships between teachers and students, all four schools decreased their student-to-staff ratios (STR): At Academy and English the STR is now 10.5 to 1; at Duggan it is 9.9 to 1; and at Putnam it is 8.8 to 1. In addition, all four schools now operate student advisory programs that provide opportunities for teachers and students to better know and understand one another.

Next Steps

These findings suggest that progress has been achieved with regard to establishing foundation conditions for success within the four schools, with the most extensive changes realized at Academy, Duggan, and English. These changes correspond to what would be considered intermediate impacts in the context of the Commonwealth Pilots School evaluation. As such, they represent crucial reforms that may lead to more unified and professional learning communities in the four schools, and, ultimately, more effective schools in which students thrive.

This evaluation will continue to engage with staff at each of the four schools to gain clarity regarding the implementation, value, and outcomes associated with changes made over the past year. This engagement will include focus groups and a targeted school staff survey. Through this additional data collection, the study team will clarify and validate the findings of this report, and develop a broader perspective on the changes resulting from adoption of Design Plans at each school. Study findings will be summarized in a report in summer 2008. Although an analysis of student outcomes data is not central to evaluation activities in this first year of implementation, it will take on increasing importance in subsequent years.

Appendix A: Historical Trends

This appendix presents a range of data regarding school enrollment, demographics, staffing, student indicators, and student achievement within and across the four Commonwealth Pilot Schools for three or more years prior to their participation in the Initiative. Except where otherwise noted, the source of data presented here is ESE Information Services.

A. Student Enrollment and Demographics

Figure 57: Total Student Enrollment

	Oct. 2002	Oct. 2003	Oct. 2004	Oct. 2005	Oct. 2006	Oct. 2007
Academy Middle School, Fitchburg	583	537	557	516	462	368
Duggan Middle School, Springfield	920	858	866	699	778	437
Putnam V-T High School, Springfield	1,100	982	989	1,164	1,333	1,472
The English High School, Boston	1,214	1,324	1,255	1,314	1,244	820

Figure 58: Student Race/Ethnicity (Proportion Non-White)

	2004-2005	2005-2006	2006-2007	2007-2008
Academy Middle School, Fitchburg	55%	64%	71%	71%
Duggan Middle School, Springfield	89%	91%	87%	82%
Putnam V-T High School, Springfield	89%	91%	87%	87%
The English High School, Boston	95%	95%	96%	96%

The following set of figures (Figure 59 to Figure 62) presents the prevalence of selected student populations, including low income, limited English proficient (LEP), first language not English (FLNE), and special needs students. Because ESE data related to these selected populations for 2007-2008 were unavailable at the time of this report, preliminary estimates are provided. These estimates were obtained from school and district attendance reports and student census documents.

Figure 59: Low Income Status

	2004-2005	2005-2006	2006-2007	2007-2008
Academy Middle School, Fitchburg	60%	80%	77%	78%
Duggan Middle School, Springfield	82%	84%	81%	78%
Putnam V-T High School, Springfield	76%	67%	69%	62%
The English High School, Boston	77%	71%	69%	63%

Figure 60: Students with Limited English Proficiency

	2004-2005	2005-2006	2006-2007	2007-2008
Academy Middle School, Fitchburg	32%	23%	7%	11%
Duggan Middle School, Springfield	23%	18%	16%	7%
Putnam V-T High School, Springfield	14%	12%	11%	10%
The English High School, Boston	23%	23%	24%	21%

Figure 61: Students for Whom First Language Is Not English (FLNE)

	2004-2005	2005-2006	2006-2007	2007-2008
Academy Middle School, Fitchburg	38%	36%	39%	33%
Duggan Middle School, Springfield	31%	28%	24%	17%
Putnam V-T High School, Springfield	16%	19%	22%	25%
The English High School, Boston	50%	54%	53%	53%

Figure 62: Students with Special Education Needs

	2004-2005	2005-2006	2006-2007	2007-2008
Academy Middle School, Fitchburg	15%	18%	21%	24%
Duggan Middle School, Springfield	22%	27%	26%	29%
Putnam V-T High School, Springfield	28%	27%	25%	22%
The English High School, Boston	21%	21%	20%	22%

Figure 63 presents single-year student mobility trends for each of the four schools. In this analysis, mobility was calculated from ESE student-level data files using all grades available for each school. The mobility percentage represents the proportion of students who either: 1) entered the school subsequent to the start of the school year, or 2) began at the school but left before the conclusion of the year.

Figure 63: Single-Year Student Mobility Rates

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	11.0%	15.7%	21.1%
Duggan Middle School, Springfield	19.1%	26.0%	22.2%
Putnam V-T High School, Springfield	29.6%	32.1%	24.7%
The English High School, Boston	42.4%	39.9%	43.3%

B. Staffing and Teacher Qualifications

Figure 64 through Figure 68 present ESE baseline data relative to staffing levels and the qualifications of teaching staff. Because ESE staffing data is not currently available for 2007-2008, and the methodologies by which preliminary calculations were developed are not identical to ESE data collection protocols, this set of figures omits current-year data, presenting only three-year historical trends.

Figure 64: Total Number of Teachers

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	46	45	41
Duggan Middle School, Springfield	62	66	59
Putnam V-T High School, Springfield	120	130	134
The English High School, Boston	107	96	80

Figure 65: Total Number of Core Academic Teachers

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	37	42	38
Duggan Middle School, Springfield	46	55	47
Putnam V-T High School, Springfield	41	74	79
The English High School, Boston	69	89	67

Figure 66: Student-to-Teacher Ratios

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	12.1 : 1	11.6 : 1	11.4 : 1
Duggan Middle School, Springfield	14.0 : 1	10.6 : 1	13.2 : 1
Putnam V-T High School, Springfield	8.3 : 1	9.0 : 1	10.0 : 1
The English High School, Boston	11.7 : 1	13.7 : 1	15.6 : 1

Figure 67: Percent of Teachers Licensed in Their Teaching Assignment

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	90%	96%	99.5%
Duggan Middle School, Springfield	71%	62%	78%
Putnam V-T High School, Springfield	85%	61%	76%
The English High School, Boston	87%	95%	96%

Figure 68: Percent of Core Academic Teachers Identified as Highly Qualified

	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	96%	98%	99.5%
Duggan Middle School, Springfield	67%	55%	66%
Putnam V-T High School, Springfield	83%	63%	68%
The English High School, Boston	79%	94%	90%

C. Student Indicators

Figure 69: Student Attendance Rates

	2003-2004	2004-2005	2005-2006	2006-2007
Academy Middle School, Fitchburg	94%	94%	93%	92%
Duggan Middle School, Springfield	89%	85%	89%	89%
Putnam V-T High School, Springfield	85%	88%	88%	87%
The English High School, Boston	82%	83%	85%	84%

Figure 70: Retention Rates

	2003-2004	2004-2005	2005-2006
Academy Middle School, Fitchburg	5%	7%	4%
Duggan Middle School, Springfield	3%	5%	4%
Putnam V-T High School, Springfield	18%	18%	4%
The English High School, Boston	9%	15%	21%

Figure 71: Student Dropout Rates

	2003-2004	2004-2005	2005-2006
Putnam V-T High School, Springfield	9%	9%	6%
The English High School, Boston	2%	6%	10%

D. Recent School Performance: AYP Determinations 2004-2007

These and other more detailed school-level AYP summaries are available for download at <http://profiles.doe.mass.edu/ayp2007.aspx>. In the historical data tables, a “yes” indicates that the school met its AYP target for that particular year, while a “no” indicates that the school did not meet AYP.

Figure 72: Academy Middle School: 2007 AYP Data Summary

	NCLB Accountability Status	Performance Rating	Improvement Rating
ELA	Improvement Year 1	Moderate	No Change
MATH	Restructuring Year 2	Very Low	No Change

		2004	2005	2006	2007
ELA	Aggregate	Yes	Yes	No	No
	All Subgroups	No	Yes	No	No
MATH	Aggregate	No	No	No	No
	All Subgroups	No	No	No	No

Figure 73: Duggan Middle School: 2007 AYP Data Summary

	NCLB Accountability Status	Performance Rating	Improvement Rating
ELA	Restructuring Year 2	Low	Above Target
MATH	Restructuring Year 2	Critically Low	No Change

		2004	2005	2006	2007
ELA	Aggregate	No	No	No	No
	All Subgroups	No	No	No	No
MATH	Aggregate	No	No	No	No
	All Subgroups	No	No	No	No

Figure 74: Putnam V-T High School: 2007 AYP Data Summary

	NCLB Accountability Status	Performance Rating	Improvement Rating
ELA	Restructuring Year 1 - Subgroups	Low	On Target
MATH	Restructuring Year 1 - Subgroups	Low	Above Target

		2004	2005	2006	2007
ELA	Aggregate	Yes	No	No	No
	All Subgroups	No	No	No	No
MATH	Aggregate	Yes	No	No	No
	All Subgroups	No	No	No	No

Figure 75: The English High School: 2007 AYP Data Summary

	NCLB Accountability Status	Performance Rating	Improvement Rating
ELA	Restructuring Year 1 - Subgroups	Low	Above Target
MATH	Restructuring Year 1 - Subgroups	Low	Above Target

		2004	2005	2006	2007
ELA	Aggregate	No	Yes	Yes	Yes
	All Subgroups	No	No	No	No
MATH	Aggregate	Yes	No	No	Yes
	All Subgroups	No	No	No	No