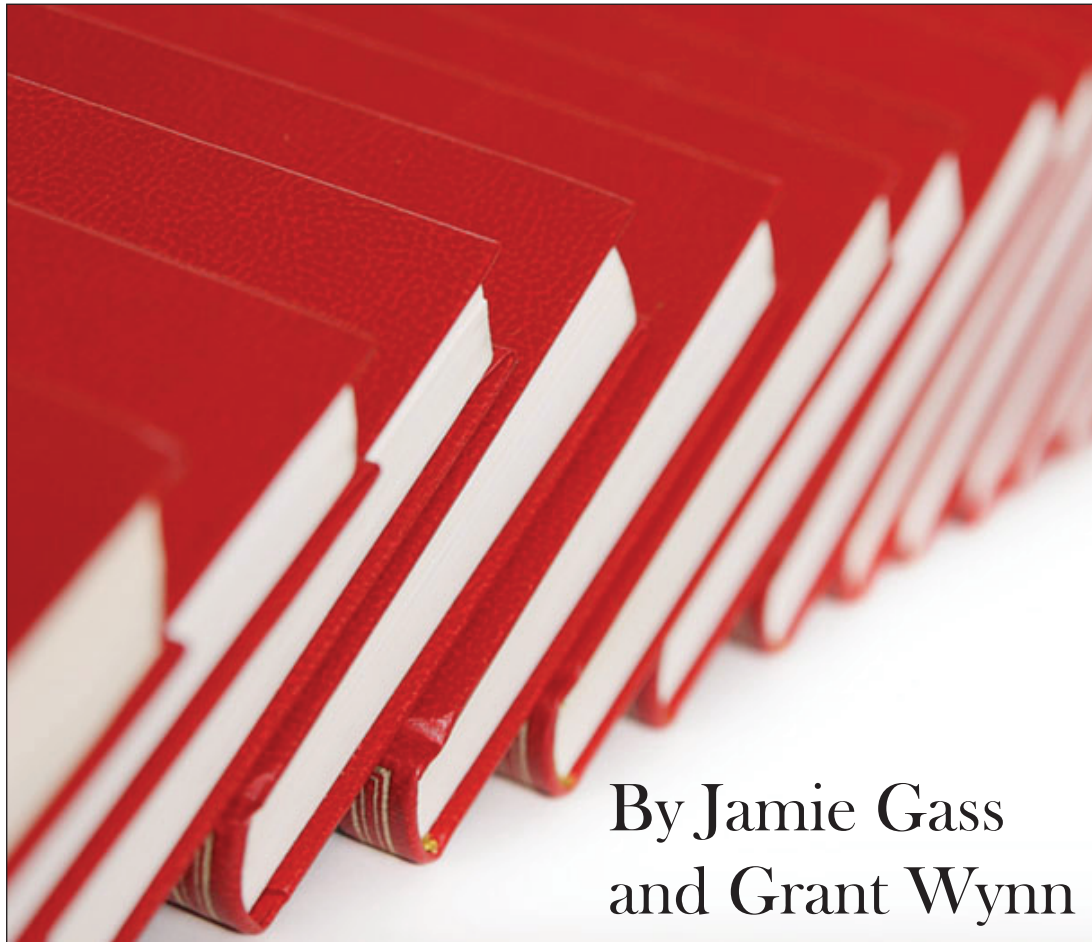


Education Reform in Massachusetts:

Aligning District Curricula with State Frameworks



By Jamie Gass
and Grant Wynn

Center for School Reform



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Executive Summary

This study, produced by Pioneer Institute's Center for School Reform, analyzes school district performance assessment data reported by the Massachusetts Office of Educational Quality and Accountability (EQA). This agency audits school districts regularly to evaluate their progress in implementing the reforms articulated by the Massachusetts Education Reform Act of 1993 (MERA).

MERA heralded a new era in which state government plays an expanded role as arbiter of public education quality in Massachusetts. An important aspect of the state's role is curriculum development. Prior to 1993, only the wealthier school districts could afford to expend staff time on writing curricula. Poorer districts left curriculum development to already overburdened classroom teachers, resulting in curriculum gaps and drift. By creating statewide curriculum frameworks for core subjects, the state has striven to establish a common curriculum for all the school districts in Massachusetts.

This study subjects the performance data of 76 school districts to detailed analyses. This is the first attempt by independent researchers to disaggregate and draw conclusions from EQA data. The districts that encompass the research sample represent 84 percent of all published EQA technical reports at the time of the study. These reports cover some of the largest districts in Massachusetts, which are also some of the highest-funded and lowest-performing school districts in the state. This study also considers the aggregated Massachusetts Comprehensive Assessment System (MCAS) test scores and state Chapter 70 education aid received by the 76 districts under review. In FY2005 alone, the 76 districts received a total of \$1.9 billion, or 61 percent of total state Chapter 70 aid. Furthermore, in the 2005-2006 school year, these 76 districts had a combined enrollment of 392,878 students.

Specifically, this study extracts, examines, and analyzes the outcomes for two particular items (called "indicators") in the EQA's technical reports. The indicators reviewed in this study measure a district's curriculum development efforts. One indicator exclusively addresses curriculum alignment, the other implementation.

Findings:

The EQA Performance Assessment Data

- Between 2003 and 2005, 58 percent of the EQA Sample districts received a 'Below Satisfactory' performance rating, 36 percent received a 'Satisfactory' performance rating, and 6 percent received an 'Above Satisfactory' performance rating by the EQA for curriculum alignment and implementation combined.
- Between 2003 and 2005, 60 percent of the EQA Sample districts received a 'Satisfactory' performance rating, 39 percent received a 'Below Satisfactory' performance rating, and 1 percent received an 'Above Satisfactory' performance rating by the EQA in staffing for curriculum and instruction.
- Within the EQA Sample, Boston was rated 'Satisfactory,' Fall River was rated 'Below Satisfactory,' Springfield was rated 'Below Satisfactory,' Cambridge was rated 'Below Satisfactory,' Chelsea was rated 'Below Satisfactory,' Lowell 'Below Satisfactory,' and Worcester was rated 'Below Satisfactory' by the EQA for their combined curriculum alignment and implementation.

The MCAS Test Data

- On the 2002-05 MCAS test, 52 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories in English language arts (ELA), 14 percentage points higher than that of students statewide.
- On the 2002-05 MCAS test, 65 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories of mathematics, 11 percentage points higher than that of students statewide.
- On the 2005 MCAS test, 75 percent of the EQA Sample African-American students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 4 percentage points higher than that of African-American students statewide.
- On the 2005 MCAS test, 78 percent of the EQA Sample Hispanic-American students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 3 percentage points higher than that of Hispanic-American students statewide.

Rates of Chapter 70 Funding

- From FY1993 to FY2005, the Chapter 70 aid for the EQA Sample increased 151 percent, from \$770 million in FY1993 to \$1.94 billion in FY2005. The total Chapter 70 aid distributed to these 76 selected school districts from FY1993 to FY2005 was \$19 billion.
- From FY1993 to FY2005, the Chapter 70 aid for the Springfield Public Schools increased 115 percent, from \$100 million in FY1993 to \$216 million in FY2005. The total Chapter 70 aid distributed to the Springfield Public Schools from FY1993 to FY2005 was \$2.1 billion.
- From FY1993 to FY2005, the Chapter 70 aid for the Boston Public Schools increased 238 percent, from \$59 million in FY1993 to \$200 million in FY2005. The total Chapter 70 aid distributed to the Boston Public Schools from FY1993 to FY2005 was \$1.93 billion.

In sum, those districts that were underperforming in 1993 are still underperforming despite the infusion of funding, and they have yet to fully adopt and implement the state curriculum frameworks. Part of the reason may be that the state has failed to provide sufficient technical assistance to these school districts to ensure that the district staffers understand and know how to work with the statewide standards. It is also possible that some school committees, superintendents, and principals have not paid enough attention to and allocated enough staffing for developing local curricula.

Policy Recommendations

- Districts in which more than 60 percent of the students have not reached proficiency on the MCAS test must submit to a curriculum audit by an outside evaluator. If, after the annual curriculum audit, a district did not have a satisfactory curriculum alignment or program implementation, a recommendation should be made to the state Board of Education that the district receive a seven percent reduction in state Chapter 70 aid until the matter is remedied.
- Districts in which more than 60 percent of students have not reached proficiency on the MCAS test should be required to choose a team of teachers and administrators to collaborate with private providers in an on-going professional development program. These private teams would conduct analyses of the district’s test scores, and its curricular materials, and recommend modifications.

Introduction

Since the passage of the Massachusetts Education Reform Act of 1993, the state has invested more than \$40 billion in public education to reduce funding inequities and improve student performance. An important component of the state's reform effort was the creation of statewide curriculum frameworks to guide district officials and teachers, while introducing enough academic consistency to enable regular assessment and inter-district comparisons.

As part of the reform, the Massachusetts Office of Educational Quality and Accountability was empowered by the Legislature to collect performance data from school districts across the state. In this study, we look at EQA reports from 76 school districts, which include many of the districts with the highest state funding and lowest performance. We focus on two specific indicators that measure how rigorously these districts have aligned their locally developed curricula with the standards of the state curriculum frameworks.¹

By comparing the 76 districts' performance on these indicators with the districts' Massachusetts Comprehensive Assessment System test results and state Chapter 70 aid, we find that one of the weak links between increased funding and low performance improvement is the lack of district-level curriculum development and alignment with state standards.

Data and Methodology

As noted above, the data for this study are drawn from district accountability reports produced by the Massachusetts Office of Educational Quality and Accountability. These reports are available at: <http://eqa.mass.edu/reports/reports.asp>. For a detailed explanation of how these EQA reports were tabulated, please see Appendices A, B, and C.

Part One: Background

Educational Standards in America

When the National Commission on Excellence in Education published its report, *A Nation At Risk*, in 1983, it commenced a wave of education reform efforts across the country. As that report proclaimed:

If an unfriendly power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves. We have even squandered the gains in achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems, which helped make those gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament.²

The findings and urgent tone of *A Nation At Risk*, combined with a downward trend in national Verbal and Math Scholastic Assessment Test (SAT) scores³, built momentum for the setting of specific goals for students' academic achievement.

Between 1974 and 1981, average Verbal SAT scores dropped a full 10 points nationally. In Massachusetts, the average Verbal score fell from 434 to 422. During that same period, average Math SAT scores also experienced a downward trend, from 472 to 466 nationally and 469 to 462 in Massachusetts. This was a pattern that had begun even before 1974, and, despite the attention brought to it, remained relatively constant from 1985 to 1994.

Consequently, by the late 1980s, the federal government began to support the development of voluntary national standards for the major subjects taught in schools. Many states also began to develop their own content standards in the late 1980s because their governors favored educational federalism. Many states were skeptical that the United States Department of Education could reconcile the various local interests that play a critical role in shaping the content of school curricula.⁴ Because states have the authority to assess student achievement, the standards they have developed (and in many cases revised more than once) are more important than the voluntary standards developed by national professional organizations, especially in English language arts, reading, and mathematics, the most fundamental subjects in a school curriculum. It was within this national context that the Massachusetts Education Reform Act was developed.⁵

MERA and Chapter 70

Between 1989 and 1998, plaintiffs litigated school financing issues in 21 states, including Massachusetts. In most of the suits, plaintiffs alleged that funding inequities and educational inadequacies violated particular articles of the Massachusetts Constitution.⁶ In *McDuffy vs. Robertson* (1993), the Massachusetts Supreme Judicial Court found the state's loosely constructed funding formula and the resulting disparities unconstitutional. Fear that the court would impose its own remedy prompted the state Legislature to establish what it called the Massachusetts Education Reform Act of 1993. Among the features of the legislation were state standards and assessments, curriculum frameworks, school district accountability, charter public schools, and a more equitable system for distributing state education dollars.

Massachusetts was, in fact, among the few states that, as part of their response to these suits, provided massive supplemental state funding to redress district poverty, distance, or isolation. It chose the path of consolidating educational policy-making and funding, pressuring municipalities to take responsibility for educational funding while providing a highly progressive funding formula to remedy the fiscal inequities among different municipalities.

One of the more dramatic changes was the requirement of a minimum local expenditure for education. In 1994, the allocation of the local “foundation” budget was determined to be approximately \$5,500 per student, with adjustments depending on demographics and grade level.

The revenue to reach this minimum level of spending came from two sources: municipal budgets and state aid. Local communities did vary considerably, of course, in the amount they could afford to contribute, and local payments varied from less than 10 percent of foundation to more than 300 percent.⁷ To calculate state aid under the new formula, known as “Chapter 70,” districts began with the amount of state funding they had received during the previous year. The majority of new state education aid was then targeted towards raising spending to meet foundation. Once every district reached the minimum level of spending, additional state aid was often distributed, most commonly on a per pupil basis.

Although the state Chapter 70 funding formula was complicated, its goal was simple: to ensure an adequate level of spending in every district in the state. At the same time, the intent was neither to penalize those communities that were contributing more, nor to encourage complacency among those districts that required substantial assistance. Because of MERA and its Chapter 70, state funding for K–12 education reforms doubled in less than 10 years, from \$1.3 billion in FY1993 to \$2.6 billion in FY2000. Since FY1993, the Commonwealth of Massachusetts has provided approximately \$40 billion in state Chapter 70 aid to support education reform.

The Massachusetts Curriculum Frameworks

In return for this increased funding, the state expected improved student performance. However, it could not assess progress within a district unless it first established a comprehensive set of state-wide standards and then required districts to align their curricula with these standards.

Prior to MERA, curriculum development varied widely among the Commonwealth’s school districts. In those districts with sufficient resources, teams of teachers were paid to write curricula. Other districts provided funding only for curriculum directors, while some districts left curriculum development to individual classroom teachers, resulting in a lack of consistency.

MERA required districts to provide written curricula that contained measurable objectives and assigned the state Board of Education the following role in establishing state standards:

Section 1D. The board shall establish a set of statewide educational goals for all public elementary and secondary schools in the commonwealth. The board shall direct the commissioner to institute a process to develop academic standards for the core subjects of mathematics, science and technology, history and social science, English, foreign languages and the arts. The standards shall cover grades kindergarten through twelve and shall clearly set forth the skills, competencies, and knowledge expected to be possessed by all students at the conclusion of individual grades or clusters of grades.

Section 1E. The board shall direct the commissioner to institute a process for drawing up curriculum frameworks for the core subjects covered by the academic standards provided in section 1D. The curriculum frameworks shall present broad pedagogical approaches and strategies for assisting students in the development of the skills, competencies, and knowledge called for by these standards.⁸

It took over six contentious years to gain agreement on the content of the English language arts and mathematics curricula:

- In 1994, the Board of Education, in conjunction with the teachers and other educators, began to develop standards in ELA and mathematics.
- In late 1995, the Board approved a mathematics curriculum based on the 1989 National Council of Teachers of Mathematics (NCTM) proposal but unanimously rejected a draft of the ELA framework.

- In January 1996, concerned about the slow pace of reform in education reform in general, Governor William Weld appointed Dr. John Silber, President of Boston University, as chairman of the Board of Education, and altered the size and structure of the Board.
- In January 1997, the Silber Board approved a new draft of the ELA curriculum framework, which was also well received by educators in general.
- In March 1999, after a period of internal dissension, John Silber resigned and was replaced by James Peyser.
- In November 2000, the Peyser Board approved, after a series of disputes between proponents and opponents, a thoroughly revised draft of the 1995 mathematics curriculum framework.
- In 2001, after minor revisions, the Peyser Board approved a new edition of the ELA curriculum framework.

As strong as the resulting curriculum frameworks are, they are only the first of three steps in making school districts accountable for student performance. The second step is encouraging or requiring the school districts to develop and align their curricula with the statewide curriculum frameworks.

The third step is the development and implementation of an objective measure of student competency in the areas outlined in the curriculum frameworks. At the same time that the Commonwealth was developing the statewide curriculum frameworks, it was also developing and implementing the Massachusetts Comprehensive Assessment System (MCAS). The MCAS test is not a standard in and of itself, but rather one portion of a larger standards-based state assessment system.⁹ The individual MCAS tests are given each year in particular grades for ELA, mathematics, reading, science/technology/engineering, and history/social science. Beginning with the class of 2003, the state required students to score no lower than the ‘Needs Improvement’ category in ELA and mathematics to earn a high school diploma.

The Office of Educational Quality and Accountability

The state Legislature established the Office of Educational Quality and Accountability in 2000 as part of the accountability system required by MERA. Under the authority of an independent governing board, the Educational Management Audit Council (EMAC), this small agency of approximately 10 full-time staff members and 25 part-time examiners regularly conducts independent audits of school districts to evaluate their progress in implementing the reforms articulated by MERA. Given that state funding for education has more than doubled since enactment of MERA, it is only prudent that an independent fact-finding and audit agency that would comprehensively evaluate the financial and educational results of this spending.¹⁰

Since its first district assessment in 2002, the EQA has evaluated more than 130 school districts, some more than once. These districts include many of the previously under-funded districts that are now receiving the majority of state aid, which are also the largest metropolitan districts.

Each year, the EQA analyzes district data for all schools and school districts in the Commonwealth. Approximately 50 to 60 districts are then selected for further review and on-site visits. Those selected include urban, suburban, and rural districts, as well as regional, vocational-technical, and single-community K-12 districts. Sixty percent of the districts selected for further review are “low” performing, or significantly below the state average performance level on the MCAS tests. The remaining 40 percent are selected randomly. Districts are generally not re-visited if their number is chosen a second time, unless there are compelling reasons to do so. A small minority of the districts, approximately three percent, is reviewed at the request of superintendents, school committees, or local officials. The EQA honors these requests as funds permit.

Part Two:

Cross-Sectional Analysis of District Accountability Reports

The EQA Performance Assessment Data

This section will summarize the performance assessment outcomes of 76 individual districts as reported by the EQA. The focus is on items specific to Domain B., Curriculum and Instruction, and the standard Curriculum. These 76 districts represent 84 percent of the 91 reports that the EQA had published at the time of this study. Of those 91 reports, 15 were not included in the analysis because: (a) the district was reviewed more than once, in which case only the most recent report was used; (b) a rating scale was not featured; or (c) other reasons (see Appendix B).

The standard for curriculum was measured in the EQA reports using seven (2005) or eight (2003-04) indicators on a rating scale with four outcomes: ‘Excellent,’ ‘Satisfactory,’ ‘Poor,’ and ‘Unsatisfactory.’ For the sake of clarity, 3, 2, 1, and 0 respectively were used to represent these ratings.

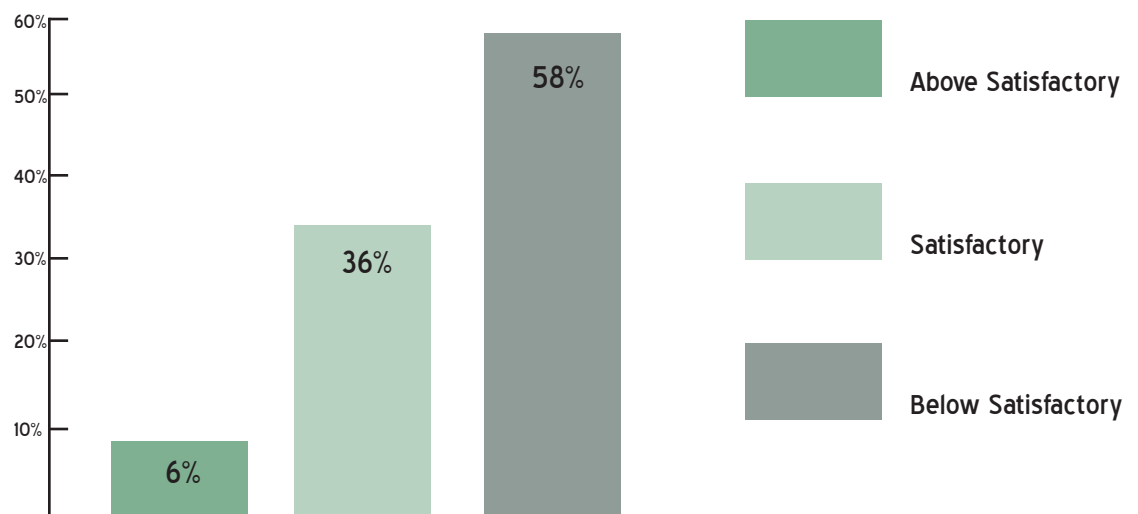
The measure of the districts’ curriculum implementation and alignment practices are explicitly addressed in two of the standard’s indicators, as illustrated by the extracts below (See Appendix C for the complete text of all Domain B. indicators):

Curriculum Alignment: The district had written curricula for all grade levels and tested core content areas that were clearly aligned with the State Curriculum Frameworks. The district’s curricula in all tested content areas were aligned horizontally to ensure that all teachers of a common grade level addressed specific subject matter following the same time line, and vertically to ensure complete coverage, eliminate redundancies, and close any gaps.

Curriculum Implementation: The district established practices that adequately provisioned for and supported the curriculum and its overall effectiveness in all assessed subject areas and all levels.

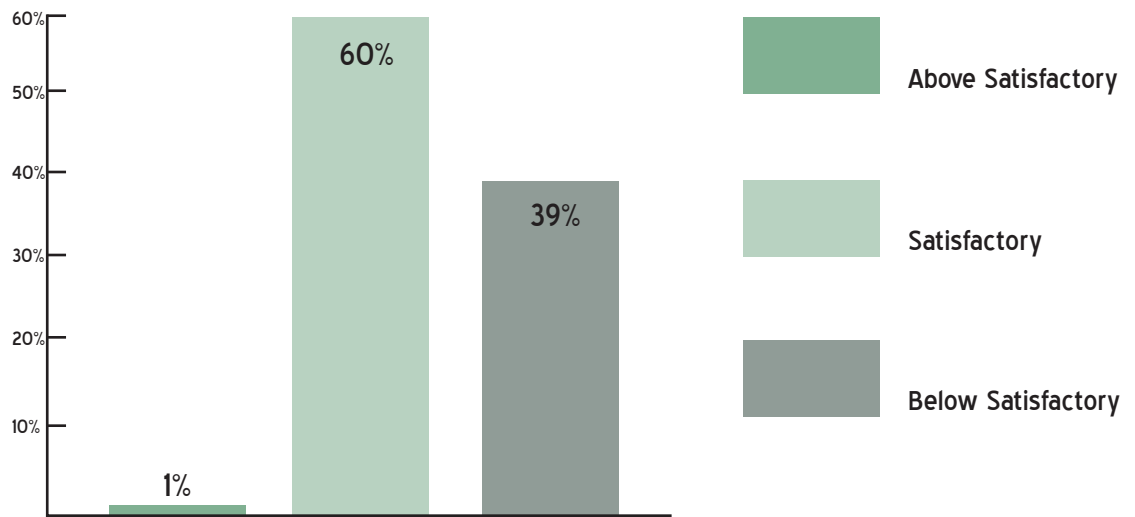
Staffing: Staffing levels are adequate to deliver the district’s curriculum to all students.

Chart 1. EQA Sample: Curriculum Alignment and Implementation Indicators (Combined ratings), 2003-2005



- Between 2003 and 2005, 58 percent of the EQA Sample districts received a ‘Below Satisfactory’ performance rating, 36 percent received a ‘Satisfactory’ performance rating, and 6 percent received an ‘Above Satisfactory’ performance rating by the EQA for curriculum alignment and implementation combined.

Chart 2. EQA Sample: Curriculum Staffing Level Indicator, 2003-05



- Between 2003 and 2005, 60 percent of the EQA Sample districts received a ‘Satisfactory’ performance rating, 39 percent received a ‘Below Satisfactory’ performance rating, and 1 percent received an ‘Above Satisfactory’ performance rating by the EQA in staffing for curriculum and instruction.

Table 1. EQA Sample: Curriculum Alignment and Implementation Indicators, 2003

School District	Alignment	Implementation	Combined Score
Above Satisfactory or Higher			
Braintree	Excellent (3.0)	Excellent (3.0)	Excellent (3.0)
Needham	Satisfactory (2.0)	Excellent (3.0)	Above Satisfactory (2.5)
Below Satisfactory or Lower			
Billerica	Satisfactory (2.0)	Poor (1.0)	Below Satisfactory (1.5)
Chelsea	Satisfactory (2.0)	Poor (1.0)	Below Satisfactory (1.5)
Fitchburg	Poor (1.0)	Poor (1.0)	Poor (1.0)
Webster	Poor (1.0)	Poor (1.0)	Poor (1.0)
North Adams	Poor (1.0)	Unsatisfactory (0)	Below Poor (0.5)
South Middlesex	Unsatisfactory (0)	Unsatisfactory (0)	Unsatisfactory (0)
Excellent = 3 Satisfactory = 2 Poor = 1 Unsatisfactory = 0			

- In 2003, 12 EQA reports were published, and of those only two districts received an ‘Above Satisfactory’ or higher conformity rating in the implementation and alignment of curriculum. Six districts received a ‘Below Satisfactory’ or lower rating.

Table 2. EQA Sample: Curriculum Alignment and Implementation Indicators, 2004

School District	Alignment	Implementation	Combined Score
Above Satisfactory or Higher			
Longmeadow	Satisfactory (2.0)	Excellent (3.0)	Above Satisfactory (2.5)
Nauset	Excellent (3.0)	Satisfactory (2.0)	Above Satisfactory (2.5)
Westford	Satisfactory (2.0)	Excellent (3.0)	Above Satisfactory (2.5)
Below Satisfactory or Lower			
Fall River	Satisfactory (2.0)	Poor (1.0)	Below Satisfactory (1.5)
Randolph	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Salem	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Springfield	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Winchendon	Satisfactory (2.0)	Poor (1.0)	Below Satisfactory (1.5)
Belmont	Poor (1.0)	Poor (1.0)	Poor (1.0)
Chicopee	Poor (1.0)	Poor (1.0)	Poor (1.0)
Greater Fall River	Poor (1.0)	Poor (1.0)	Poor (1.0)
Greater New Bedford	Poor (1.0)	Poor (1.0)	Poor (1.0)
Lynn	Poor (1.0)	Poor (1.0)	Poor (1.0)
West Springfield	Poor (1.0)	Poor (1.0)	Poor (1.0)
Athol-Royalston	Poor (1.0)	Unsatisfactory (0)	Below Poor (0.5)
Cambridge	Poor (1.0)	Unsatisfactory (0)	Below Poor (0.5)
Southbridge	Unsatisfactory (0)	Poor (1.0)	Below Poor (0.5)
Southeastern RVT	Unsatisfactory (0)	Poor (1.0)	Below Poor (0.5)
Ware	Poor (1.0)	Unsatisfactory (0)	Below Poor (0.5)
Malden	Unsatisfactory (0)	Unsatisfactory (0)	Unsatisfactory (0)
Excellent = 3 Satisfactory = 2 Poor = 1 Unsatisfactory = 0			

- In 2004, 31 EQA reports were published, but only three districts received an ‘Above Satisfactory’ or higher conformity rating in the implementation and alignment of curriculum. Seventeen received a ‘Below Satisfactory’ or lower rating.

Table 3. EQA Sample: Curriculum Alignment and Implementation Indicators, 2005

School District	Alignment	Implementation	Combined Score
Above Satisfactory or Higher, n/a			
Below Satisfactory or Lower			
Tantasqua	Below Satisfactory (1.5)	Satisfactory (2.0)	Below Satisfactory (1.8)
Adams Cheshire	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Dighton-Rehobeth	Below Satisfactory (1.5)	n/a	Below Satisfactory (1.5)
Gardner	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Leominster	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Pioneer Valley	Poor (1.0)	Satisfactory (2.0)	Below Satisfactory (1.5)
Lowell	Below Satisfactory (1.5)	Poor (1.0)	Below Satisfactory (1.3)
Nashoba Valley Tech	Below Satisfactory (1.5)	Poor (1.0)	Below Satisfactory (1.3)
North Attleboro	Below Satisfactory (1.5)	Poor (1.0)	Below Satisfactory (1.3)
Berkley	Poor (1.0)	Poor (1.0)	Poor (1.0)
Berkshire Hills	Poor (1.0)	Poor (1.0)	Poor (1.0)
Beverly	Poor (1.0)	Poor (1.0)	Poor (1.0)
Easthampton	Poor (1.0)	Poor (1.0)	Poor (1.0)
Freetown-Lakeville	Poor (1.0)	Poor (1.0)	Poor (1.0)
Greater Lowell	Poor (1.0)	Poor (1.0)	Poor (1.0)
Greenfield	Poor (1.0)	Poor (1.0)	Poor (1.0)
Narragansett	Poor (1.0)	Poor (1.0)	Poor (1.0)
Wareham	Poor (1.0)	Poor (1.0)	Poor (1.0)
Hampshire	Unsatisfactory (0)	Poor (1.0)	Below Poor (0.5)
Worcester	Poor (1.0)	Unsatisfactory (0)	Below Poor (0.5)
Excellent = 3 Satisfactory = 2 Poor = 1 Unsatisfactory = 0			

- In 2005, 34 EQA reports were published, and none of the districts received an ‘Above Satisfactory’ or higher conformity rating in the implementation and alignment of curriculum. Twenty received a ‘Below Satisfactory’ or lower rating.

Table 4. EQA Sample: Curriculum Staffing Level Indicator, 2003-05

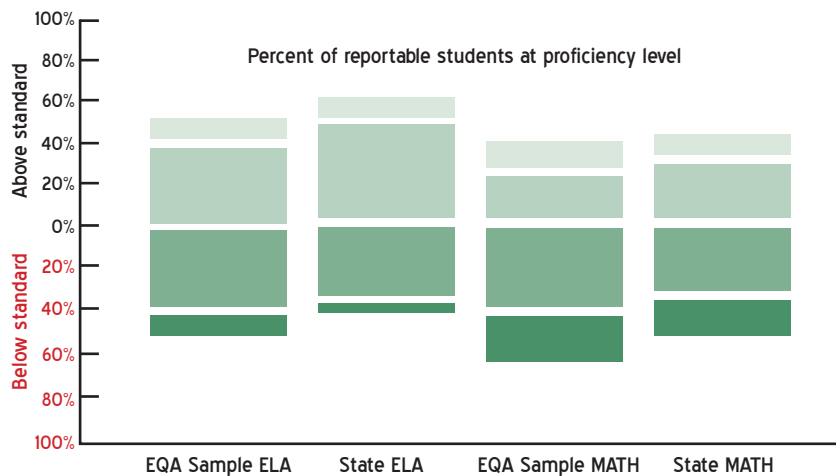
School District	Year	Staffing Level
Above Satisfactory or Higher		
Needham	2003	Excellent (3.0)
Below Satisfactory or Lower		
Assabet Valley	2005	Poor (1.0)
Belmont	2004	Poor (1.0)
Berkley	2005	Poor (1.0)
Berkshire Hills	2005	Poor (1.0)
Beverly	2005	Poor (1.0)
Easthampton	2005	Poor (1.0)
Fitchburg	2003	Poor (1.0)
Greater Lowell	2005	Poor (1.0)
Greenfield	2005	Poor (1.0)
Hampshire	2005	Poor (1.0)
Haverhill	2004	Poor (1.0)
Lowell	2005	Poor (1.0)
Narragansett	2005	Poor (1.0)
Nashoba Valley Tech	2005	Poor (1.0)
North Attleboro	2005	Poor (1.0)
Pittsfield	2003	Poor (1.0)
Southbridge	2003	Poor (1.0)
Wareham	2005	Poor (1.0)
Webster	2003	Poor (1.0)
Winchendon	2004	Poor (1.0)
Boston	2005	Unsatisfactory (0)
Northborough-Southborough	2004	Unsatisfactory (0)
Worcester	2005	Unsatisfactory (0)
Excellent = 3 Satisfactory = 2 Poor = 1 Unsatisfactory = 0		

- Out of 76 EQA reports spanning the period 2003-05, only one indicated that Staffing Levels were 'Above Satisfactory' or higher and 23 received 'Below Satisfactory' or lower.

The MCAS Test Data

In this section, we will compare the English language arts and mathematics MCAS test averages for the study sample with statewide averages. Because the EQA is required to select “low” performing districts for 60 percent of its detailed examinations, and the EQA research sample is drawn from the EQA selection process, the EQA Sample falls below the statewide average at every level except for ‘Needs Improvement’ in mathematics. Nevertheless, these same low performing school districts are the primary recipients of the largest portions of state Chapter 70 aid, as well as the major focus of the state’s education reform efforts.

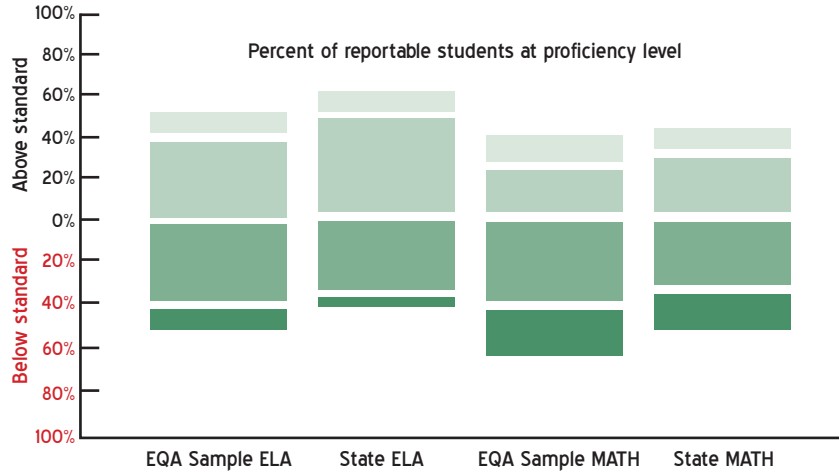
Figure 1. MCAS Test Data: EQA Sample/State, 2005



	EQA Sample ELA	State ELA	EQA Sample MATH	State MATH
Advanced	9	14	13	20
Proficient	40	47	22	28
Needs Improv.	39	31	35	33
Warning/Failing	13	8	29	20

- On the 2005 MCAS test, 49 percent of the students in the EQA Sample scored in the ‘Advanced’ and ‘Proficient’ categories in ELA, 12 percentage points lower than that of students statewide.
- On the 2005 MCAS test, 52 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories in ELA, 13 percentage points higher than that of students statewide.
- On the 2005 MCAS test, 35 percent of the students in the EQA Sample scored in the ‘Advanced’ and ‘Proficient’ categories in mathematics, 13 percentage points lower than that of students statewide.
- On the 2005 MCAS test, 64 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories in mathematics, 11 percentage points higher than that of students statewide.

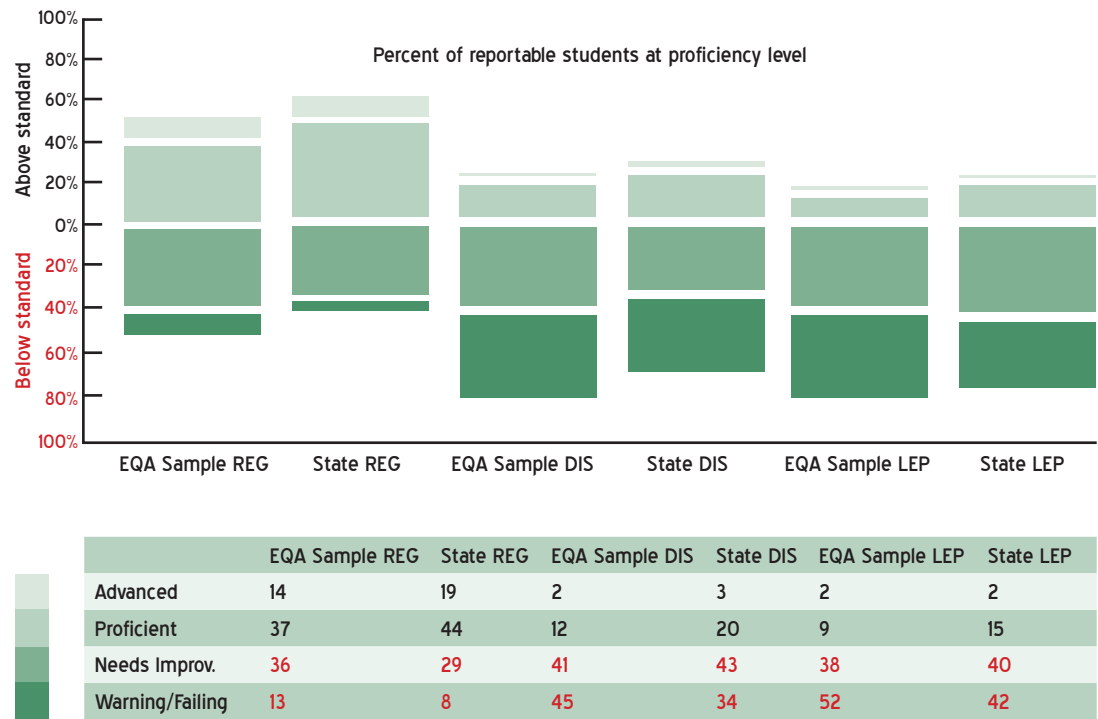
Figure 2. MCAS Test Data: EQA Sample/State, 2002-05



	EQA Sample ELA	State ELA	EQA Sample MATH	State MATH
Advanced	8	14	13	19
Proficient	41	48	22	27
Needs Improv.	38	30	36	34
Warning/Failing	14	8	29	20

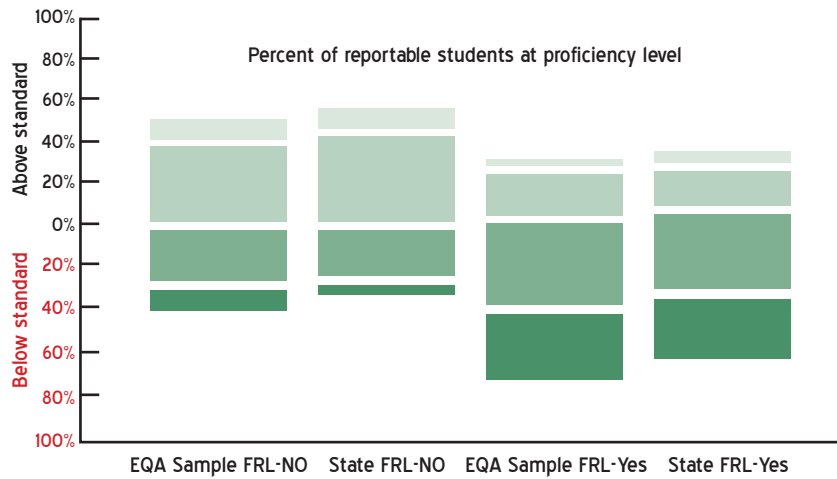
- On the 2002-05 MCAS tests, an overall average of 49 percent of the students in the EQA Sample scored in the ‘Advanced’ and ‘Proficient’ categories in ELA, 13 percentage points lower than that of students statewide.
- On the 2002-05 MCAS tests, an overall average of 52 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories in ELA, 14 percentage points higher than that of students statewide.
- On the 2002-05 MCAS tests, an overall average of 35 percent of the students in the EQA Sample scored in the ‘Advanced’ and ‘Proficient’ categories in mathematics, 11 percentage points lower than that of students statewide.
- On the 2002-05 MCAS tests, an overall average of 65 percent of the students in the EQA Sample scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories of mathematics, 11 percentage points higher than that of students statewide.

Figure 3. MCAS Test Data: 2005 EQA Sample/State — Disabled Students, 2005



- On the 2005 MCAS test, 51 percent of the EQA Sample Regular education students scored in the ‘Advanced’ and ‘Proficient’ categories, 12 percentage points lower than that of the Regular education students statewide.
- On the 2005 MCAS test, 49 percent of the EQA Sample Regular education students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 12 percentage points higher than that of the Regular education students statewide.
- On the 2005 MCAS test, 14 percent of the EQA Sample students with disabilities scored in the ‘Advanced’ and ‘Proficient’ categories, 9 percentage points lower than that of the students with disabilities statewide.
- On the 2005 MCAS test, 86 percent of the EQA Sample students with disabilities scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 9 percentage points higher than that of the students with disabilities statewide.
- On the 2005 MCAS test, 11 percent of the EQA Sample Limited English Proficiency (LEP) students scored in the ‘Advanced’ and ‘Proficient’ categories, 6 percentage points lower than that of the LEP students statewide.
- On the 2005 MCAS test, 90 percent of the EQA Sample LEP students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 9 percentage points higher than that of the LEP students statewide.

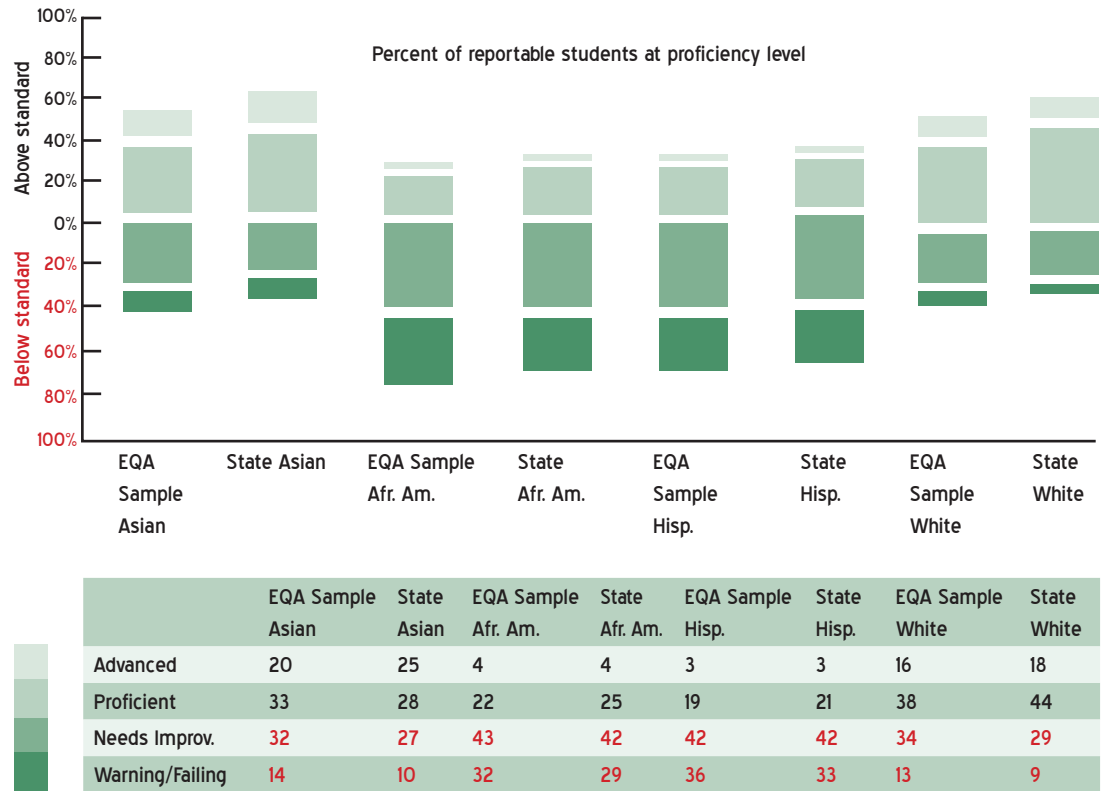
Figure 4. MCAS Test Data: EQA Sample/State, Free or Reduced Lunch (FRL) No/Yes Students, 2005



	EQA Sample FRL-NO	State FRL-NO	EQA Sample FRL-Yes	State FRL-Yes
Advanced	18	20	4	5
Proficient	39	44	22	25
Needs Improv.	31	28	43	43
Warning/Failing	11	8	31	28

- On the 2005 MCAS test, 57 percent of the EQA Sample students who did not receive a Free or Reduced Lunch (FRL/No) scored in the ‘Advanced’ and ‘Proficient’ categories, 7 percentage points lower than that of the FRL/No students statewide.
- On the 2005 MCAS test, 42 percent of the EQA Sample FRL/No students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 6 percentage points higher than that of the FRL/No students statewide.
- On the 2005 MCAS test, 26 percent of the EQA Sample FRL/Yes students scored in the ‘Advanced’ and ‘Proficient’ categories, 4 percentage points lower than that of the FRL/Yes students statewide.
- On the 2005 MCAS test, 74 percent of the EQA Sample FRL/Yes students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 3 percentage points higher than that of the FRL/Yes students statewide.

Figure 5. MCAS Test Data: EQA Sample/State - Minority Subgroup Students, 2005



- On the 2005 MCAS test, 53 percent of the EQA Sample Asian-American students scored in the ‘Advanced’ and ‘Proficient’ categories, 10 percentage points lower than that of Asian-American students statewide.
- On the 2005 MCAS test, 46 percent of the EQA Sample Asian-American students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 9 percentage points higher than that of Asian-American students statewide.
- On the 2005 MCAS test, 26 percent of the EQA Sample African-American students scored in the ‘Advanced’ and ‘Proficient’ categories, 3 percentage points lower than that of African-American students statewide.
- On the 2005 MCAS test, 75 percent of the EQA Sample African-American students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 4 percentage points higher than that of African-American students statewide.
- On the 2005 MCAS test, 22 percent of the EQA Sample Hispanic-American students scored in the ‘Advanced’ and ‘Proficient’ categories, 2 percentage points lower than that of Hispanic-American students statewide.
- On the 2005 MCAS test, 78 percent of the EQA Sample Hispanic-American students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 3 percentage points higher than that of Hispanic-American students statewide.

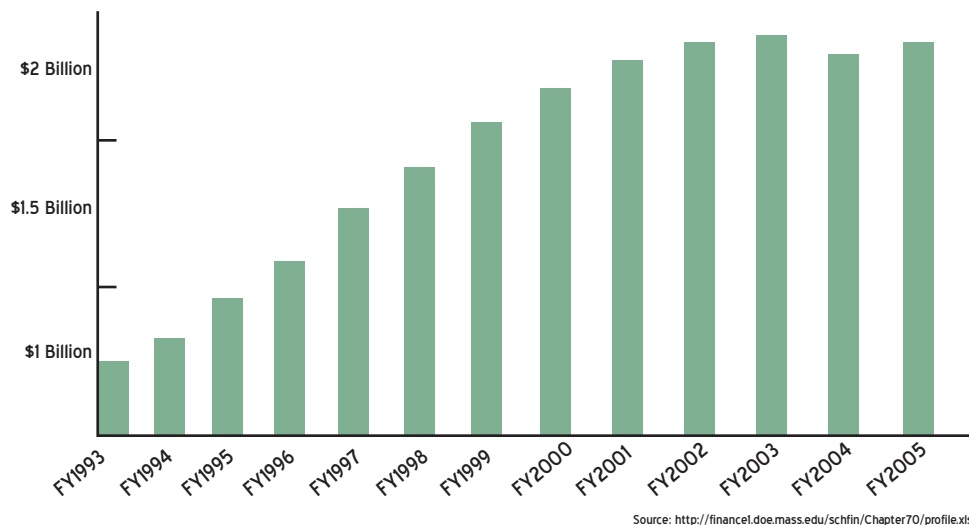
- On the 2005 MCAS test, 54 percent of the EQA Sample White students scored in the ‘Advanced’ and ‘Proficient’ categories, 8 percentage points lower than that of White students statewide.
- On the 2005 MCAS test, 47 percent of the EQA Sample White students scored in the ‘Needs Improvement’ and ‘Warning/Failing’ categories, 9 percentage points higher than that of White students statewide.

Rates of Chapter 70 Funding

Districts with low-performing schools are also those that have been the major recipients of the state Chapter 70 aid. Because the EQA is required to over-represent these districts in its reviews, they are also over-represented in the EQA Sample. As a result, the Chapter 70 funding increase to the research sample is indicative of how great the increase in funding has been to “low” performing school district.

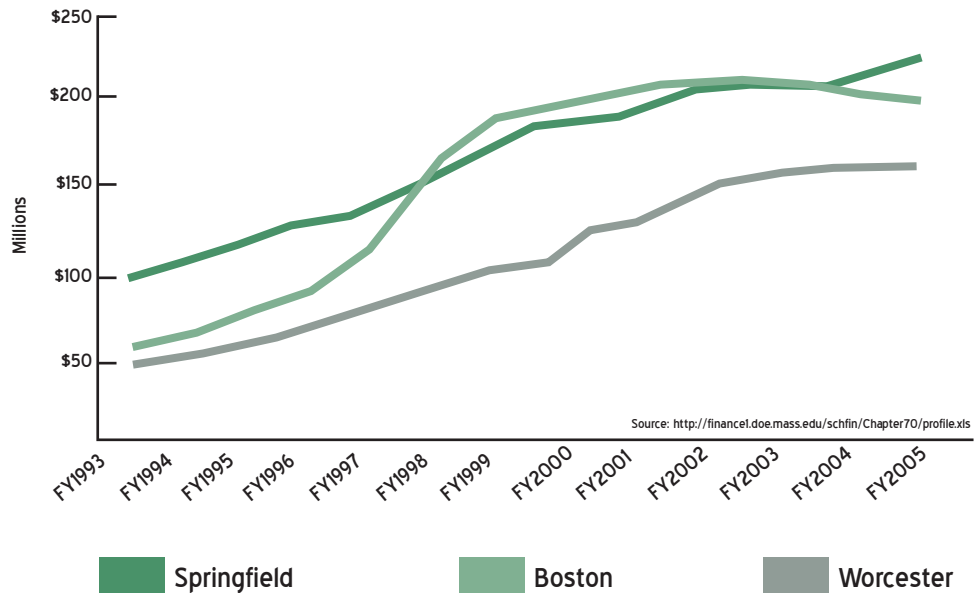
The following three figures illustrate the extent of these increases in state aid over the last decade. Given the sub-standard scores these districts have averaged on the MCAS test, and the sub-par performance assessment data in the EQA Sample’s Assessment and Evaluation indicators, there is reason to doubt that districts receiving the highest level of financial support are spending their additional funds as wisely as possible.

Figure 6. EQA Sample: Chapter 70 Funding, 1993-2005



- From FY1993 to FY2005, the Chapter 70 aid for the EQA Sample increased 151 percent, from \$770 million in FY1993 to \$1.94 billion in FY2005. The total Chapter 70 aid distributed to these 76 selected school districts from FY1993 to FY2005 was \$19 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the EQA Sample increased 15 percent, from \$1.7 billion in FY2000 to \$1.95 billion in FY2005. The total Chapter 70 aid distributed to these 76 selected school districts from FY2000 to FY2005 was \$11.15 billion.

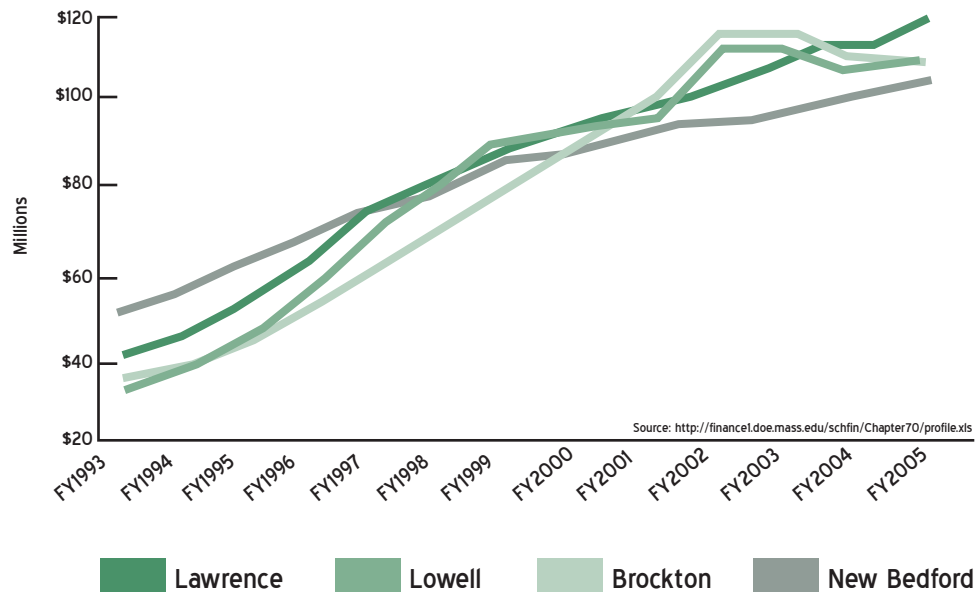
* Note: Numbers rounded-off to the nearest million.

Figure 7. EQA Sample: Chapter 70 Funding, Top 3 Districts, 1993-2005

- From FY1993 to FY2005, the Chapter 70 aid for the Springfield Public Schools increased 115 percent, from \$100 million in FY1993 to \$216 million in FY2005. The total Chapter 70 aid distributed to the Springfield Public Schools from FY1993 to FY2005 was \$2.1 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the Springfield Public Schools increased 19 percent, from \$182 million in FY2000 to \$216 million in FY2005. The total Chapter 70 aid distributed to the Springfield Public Schools from FY2000 to FY2005 was \$1.21 billion.
- From FY1993 to FY2005, the Chapter 70 aid for the Boston Public Schools increased 238 percent, from \$59 million in FY1993 to \$200 million in FY2005. The total Chapter 70 aid distributed to the Boston Public Schools from FY1993 to FY2005 was \$1.93 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the Boston Public Schools increased 8 percent, from \$186 million in FY2000 to \$200 million in FY2005. The total Chapter 70 aid distributed to the Boston Public Schools from FY2000 to FY2005 was \$1.2 billion.
- From FY1993 to FY2005, the Chapter 70 aid for the Worcester Public Schools increased 206 percent, from \$52 million in FY1993 to \$159 million in FY2005. The total Chapter 70 aid distributed to the Worcester Public Schools from FY1993 to FY2005 was \$1.44 billion.
- From fiscal years 2000 to 2005, the Chapter 70 aid for the Worcester Public Schools increased 22 percent, from \$131 million in FY2000 to \$159 million in FY2005. The total Chapter 70 aid distributed to the Worcester Public Schools from FY2000 to FY2005 was \$882 million.
- The total combined increase for the EQA Sample in Chapter 70 aid from FY1993 to FY2005 was \$1.17 billion. The total combined increase in Chapter 70 aid for Springfield, Boston, and Worcester for the same period was \$363 million. This represents 31 percent of the total increase of the EQA Sample districts.
- The combined increase for the EQA Sample in Chapter 70 aid from FY2000 to FY2005 was

\$253 million. The combined increase in Chapter 70 aid for Springfield, Boston, and Worcester for the same period was \$77 million. This represents 30 percent of the increase of the EQA Sample districts.

Figure 8. EQA Sample: Chapter 70 Funding, Other Districts, 1993-2005



- From FY1993 to FY2005, the Chapter 70 aid for the Lawrence Public Schools increased 178 percent, from \$41 million in FY1993 to \$115 million in FY2005. The total Chapter 70 aid distributed to the Lawrence Public Schools from FY1993 to FY2005 was \$1.08 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the Lawrence Public Schools increased 19 percent, from \$96 million in FY2000 to \$115 million in FY2005. The total Chapter 70 aid distributed to the Lawrence Public Schools from FY2000 to FY2005 was \$636 million.
- From FY1993 to FY2005, the Chapter 70 Aid for the Lowell Public Schools increased 204 percent, from \$35 million in FY1993 to \$108 million in FY2005. The total Chapter 70 aid distributed to the Lowell Public Schools from FY1993 to FY2005 was \$1.04 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the Lowell Public Schools increased 17 percent, from \$92 million in FY2000 to \$108 million in FY2005. The total Chapter 70 aid distributed to the Lowell Public Schools from FY2000 to FY2005 was \$617 million.
- From FY1993 to FY2005, the Chapter 70 aid for the Brockton Public Schools increased 192 percent, from \$37 million in FY1993 to \$107 million in FY2005. The total Chapter 70 aid distributed to the Brockton Public Schools from FY1993 to FY2005 was \$1.04 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the Brockton Public Schools increased 16 percent, from \$92 million in FY2000 to \$107 million in FY2005. The total Chapter 70 aid distributed to the Brockton Public Schools from FY2000 to FY2005 was \$629 million.

- From FY1993 to FY2005, the Chapter 70 aid for the New Bedford Public Schools increased 100 percent, from \$51 million in FY1993 to \$102 million in FY2005. The total Chapter 70 aid distributed to the New Bedford Public Schools from FY1993 to FY2005 was \$1.03 billion.
- From FY2000 to FY2005, the Chapter 70 aid for the New Bedford Public Schools increased 18 percent, from \$86 million in FY2000 to \$104 million in FY2005. The total Chapter 70 aid distributed to the New Bedford Public Schools from FY2000 to FY2005 was \$568 million.
- The total combined increase for the EQA Sample in Chapter 70 aid from FY1993 to FY2005 was \$1.17 billion. The total combined increase in Chapter 70 aid for Lawrence, Lowell, Brockton, and New Bedford for the same period was \$267 million. This represents 23 percent of the total increase of the EQA Sample districts.
- The combined increase for the EQA Sample in Chapter 70 aid from FY2000 to FY2005 was \$253 million. The combined increase in Chapter 70 aid for Lawrence, Lowell, Brockton, and New Bedford for the same period was \$65 million. This represents 26 percent of the increase of the EQA Sample districts.

Part Three: Conclusions

The goal of education reform in Massachusetts was to reduce disparities in student performance while raising statewide achievement levels. With this in mind, the Commonwealth has spent more than \$40 billion since 1993 to bring more equity into school funding, even establishing a minimum per student expense, the “foundation budget,” which it helps poorer localities maintain. The establishment of a statewide curriculum also promotes equity, since it was typically the more poorly funded school districts that were unable to invest in curriculum development, their already overwhelmed teachers who also had to develop their own curricula, and their students who suffered from the resulting curricula gaps and drift.

Statewide curricula and their alignment and implementation at the local level also make testing possible, and only with testing is it possible to identify and remedy the causes of low student performance. Unless each district, school, and classroom, at each grade level, is teaching similar material, differences in student performance cannot be clearly traced back to variations in teaching and administrative methods and quality, and the necessary improvements prescribed. Only when each district school adopts its local curriculum to the statewide curriculum is full accountability possible.

Finally, state and local curricula establish guidelines for effective teacher preparation, professional development, and certification.

The EQA data on Chapter 70 aid, MCAS test scores, and curriculum alignment and implementation for the 76 districts under review clearly established three points:

- These school districts have received an enormous increase in funding from the Commonwealth.
- These school districts continue to perform lower on the MCAS test than the statewide average.
- Many of these school districts have made poor or unsatisfactory progress in developing and aligning their local curricula with that of the state.

Ultimately, it does not matter how impressive statewide curriculum frameworks are if local school districts do not replicate their curricular content in classrooms. The inability to align their curricular programs with state standards is especially visible in Springfield, Worcester, Fall River, and Lowell. Although the 76 study districts have received the most Chapter 70 aid between FY1993 and FY2005, they still are performing poorly on the MCAS test. Furthermore, in the 2005-2006 school year, these 76 districts in the study had a combined enrollment of 392,878 students.

Why have these low-performing school districts not implemented curricular programs that are aligned with state standards? Here are two hypotheses:

1. The Massachusetts Department of Education (DOE) has not provided sufficient or discipline-relevant technical assistance to these school districts to ensure that district officials, principals, and teachers properly understand and work with the state’s curriculum frameworks. Many school districts examined by the EQA continue to think, in fact, that the state frameworks are a curriculum, rather than a framework around which to build a local curriculum.
2. Many school districts have yet to invest in curricular programs that can address the state’s standards fully or well. Too many school committees, superintendents, and principals have yet to allocate the proper staffing for the necessary curriculum development.

Policy Recommendations

These hypotheses assert that the state and local school districts share the responsibility for local inability to take advantage of the state curriculum frameworks. Our recommendations recognize that the state has given districts the tools they need to address these problems; each district should be encouraged to put these tools to work.

- Districts in which more than 60 percent of the students have not reached proficiency on the MCAS test must submit to a curriculum audit by an outside evaluator. If, after the annual curriculum audit, a district did not have a satisfactory curriculum alignment or program implementation, a recommendation should be made to the state Board of Education that the district receive a seven percent reduction in state Chapter 70 aid until the matter is remedied.
- Districts in which more than 60 percent of students have not reached proficiency on the MCAS test should be required to choose a team of teachers and administrators to collaborate with private providers in an on-going professional development program. These private teams would conduct analyses of the district's test scores, its curricular materials, and recommend modifications.

Appendix A. Listing of EQA Sample

District	Year	Curriculum Alignment	Curriculum Implementation	Curriculum Avg.	Staffing
Abington	2005	2	2	2.0	2
Adams Cheshire	2005	1	2	1.5	2
Ashburnham Westminster	2005	2	2	2.0	2
Assabet Valley	2006	2	1	1.5	1
Athol-Royalston	2004	1	0	0.5	n/a
Barnstable	2006	2	2	2.0	2
Bellingham	2006	2	2	2.0	2
Belmont	2004	1	1	1.0	1
Berkley	2005	1	1	1.0	1
Berkshire Hills	2005	1	1	1.0	1
Beverly	2005	1	1	1.0	1
Billerica	2003	2	1	1.5	2
Boston	2005	1.5	2	1.75	0
Braintree	2003	3	3	3.0	2
Brockton	2005	2	.	2.0	n/a
Burlington	2004	2	2	2.0	2
Cambridge	2004	1	0	0.5	n/a
Chelsea	2003	2	1	1.5	2
Chicopee	2004	1	1	1.0	2
Dighton-Rehobeth	2005	1.5	.	1.5	n/a
Douglas	2005	2	2	2.0	2
Easthampton	2005	1	1	1.0	1
Fall River	2004	2	1	1.5	2
Fitchburg	2003	1	1	1.0	1
Freetown-Lakeville	2005	1	.	1.0	n/a
Gardner	2005	1	2	1.5	2
Greater Fall River	2004	1	1	1.0	n/a
Greater Lawrence	2003	2	2	2.0	2
Greater Lowell	2005	1	1	1.0	1
Greater New Bedford	2004	1	1	1.0	2
Leominster	2005	1	2	1.5	2
Longmeadow	2004	2	3	2.5	2
Lowell	2005	1.5	1	1.3	1
Lynn	2004	1	1	1.0	n/a
Malden	2004	0	0	0.0	n/a
Medfield	2004	2	2	2.0	n/a
Mohawk Trail	2005	2	2	2.0	2

Appendix A. Listing of EQA Sample

District	Year	Curriculum Alignment	Curriculum Implementation	Curriculum Avg.	Staffing
Montachusett	2005	2	2	2.0	2
Narragansett	2005	1	1	1.0	1
Nashoba Valley Tech	2005	1.5	1	1.3	1
Nauset	2004	3	2	2.5	2
Needham	2003	2	3	2.5	3
New Bedford	2005	2	2	2.0	2
North Adams	2003	1	0	0.5	2
North Attleboro	2005	1.5	1	1.3	1
Northborough-Southborough	2004	2	2	2.0	0
Old Rochester	2005	2	2	2.0	2
Pioneer Valley	2005	1	2	1.5	2
Pittsfield	2003	2	2	2.0	1
Ralph C. Mahar	2004	2	2	2.0	n/a
Randolph	2004	1	2	1.5	2
Revere	2004	2	2	2.0	2
Salem	2004	1	2	1.5	2
Sharon	2004	2	2	2.0	2
Somerville	2004	2	2	2.0	n/a
South Middlesex	2003	0	0	0.0	2
Southbridge	2004	0	1	0.5	n/a
Southeastern RVT	2004	0	1	0.5	2
Springfield	2004	1	2	1.5	n/a
Tantasqua	2005	1.5	2	1.8	2
Taunton	2004	2	2	2.0	n/a
Ware	2004	1	0	0.5	2
Wareham	2005	1	1	1.0	1
Webster	2003	1	1	1.0	1
West Boylston	2004	2	2	2.0	n/a
West Springfield	2004	1	1	1.0	n/a
Westford	2004	2	3	2.5	2
Whittier	2003	2	2	2.0	2
Winchendon	2004	2	1	1.5	1
Worcester	2005	1	0	0.5	0

Appendix B. EQA Sampling Rationale

	EQA Report		EQA Sample		Rationale for Exclusion
1	Abington	2005	Abington	1	
2	Adams Cheshire	2005	Adams Cheshire	2	
3	Ashburnham-Westminster	2005	Ashburnham-Westminster	3	
4	Assabet Valley	2005	Assabet Valley	4	
5	Assabet Valley	2003			No Domain Tables
6	Athol-Royalston	2004	Athol-Royalston	5	
7	Attleboro	2002			No Domain Tables
8	Barnstable	2005	Barnstable	6	
9	Bellingham	2005	Bellingham	7	
10	Belmont	2004	Belmont	8	
11	Berkley	2005	Berkley	9	
12	Berkshire Hills	2005	Berkshire Hills	10	
13	Beverly	2005	Beverly	11	
14	Billerica	2003	Billerica	12	
15	Blackstone Valley	2004			Not Available
16	Boston	2005	Boston	13	
17	Braintree	2003	Braintree	14	
18	Brockton	2005	Brockton	15	
19	Burlington	2004	Burlington	16	
20	Cambridge	2004	Cambridge	17	
21	Chelsea	2003	Chelsea	18	
22	Chicopee	2004	Chicopee	19	
23	Chicopee	2003			No Domain Tables
24	Clinton	2004			Not Available
25	Dighton-Rehoboth	2005	Dighton-Rehobeth	20	
26	Douglas	2005	Douglas	21	
27	Easthampton	2005	Easthampton	22	
28	Fall River	2004	Fall River	23	
29	Fall River	2003			Change in Format
30	Fitchburg	2003	Fitchburg	24	
31	Freetown-Lakeville	2005	Freetown-Lakeville	25	
32	Gardner	2005	Gardner	26	
33	Greater Fall River	2004	Greater Fall River	27	
34	Greater Lawrence	2003	Greater Lawrence	28	
35	Greater Lowell	2005	Greater Lowell	29	
36	Greater New Bedford	2004	Greater New Bedford	30	
37	Greenfield	2005	Greenfield	31	
38	Hampshire	2005	Hampshire	32	
39	Harvard	2004	Harvard	33	
40	Haverhill	2004	Haverhill	34	
41	Holyoke	2004			Early EQA Format
42	Holyoke	2003			Early EQA Format
43	Hull	2005	Hull	35	
44	Lawrence	2005	Lawrence	36	
45	Leominster	2005	Leominster	37	
46	Longmeadow	2004	Longmeadow	38	

Appendix B. EQA Sampling Rationale

	EQA Report		EQA Sample		Rationale for Exclusion
47	Lowell	2005	Lowell	39	
48	Lowell	2002			No Domain Tables
49	Lynn	2004	Lynn	40	
50	Malden	2004	Malden	41	
51	Medfield	2004	Medfield	42	
52	Methuen	2002			Early EQA Format
53	Mohawk Trail	2005	Mohawk Trail	43	
54	Montachusett	2005	Montachusett	44	
55	Narragansett	2005	Narragansett	45	
56	Nashoba Valley Tech	2005	Nashoba Valley Tech	46	
57	Nauset	2004	Nauset	47	
58	Needham	2003	Needham	48	
59	New Bedford	2005	New Bedford	49	
60	North Adams	2003	North Adams	50	
61	North Attleboro	2005	North Attleboro	51	
62	Northampton	2003			Early EQA Format
63	Northborough, Southborough	2004	Northborough, Southborough	52	
64	Northeast Metropolitan	2004			Not Available
65	Old Rochester	2005	Old Rochester	53	
66	Pioneer Valley	2005	Pioneer Valley	54	
67	Pittsfield	2003	Pittsfield	55	
68	Ralph C. Mahar	2004	Ralph C. Mahar	56	
69	Randolph	2004	Randolph	57	
70	Revere	2004	Revere	58	
71	Salem	2004	Salem	59	
72	Sharon	2004	Sharon	60	
73	Somerville	2004	Somerville	61	
74	South Middlesex	2003	South Middlesex	62	
75	Southbridge	2003			Redundant
76	Southbridge	2004	Southbridge	63	
77	Southeastern RVT	2004	Southeastern RVT	64	
78	Springfield	2004	Springfield	65	
79	Tantasqua	2005	Tantasqua	66	
80	Taunton	2004	Taunton	67	
81	Ware	2004	Ware	68	
82	Wareham	2005	Wareham	69	
83	Webster	2003	Webster	70	
84	West Boylston	2004	West Boylston	71	
85	West Springfield	2004	West Springfield	72	
86	Westfield	2003			Early EQA Format
87	Westford	2004	Westford	73	
88	Whittier RVT	2003	Whittier RVT	74	
89	Winchendon	2004	Winchendon	75	
90	Winchendon	2004			Tier III Report
91	Worcester	2005	Worcester	76	

Appendix C. Indicator Methodology

2003-04: Domain B. Curriculum and Instruction

Standards ▼	Indicators ►	1	2	3	4	5	6	7	8	9	10	Total
Domain B – Curriculum and Instruction												
S4 – Curriculum												
Excellent		0	0	0	1	1	0	0	N/A	N/A	N/A	2
Satisfactory		1	1	1	0	0	1	1	N/A	N/A	N/A	5
Poor		0	0	0	0	0	0	0	N/A	N/A	N/A	0
Unsatisfactory		0	0	0	0	0	0	0	N/A	N/A	N/A	0
S5 – Instruction: Expectations and Policies												
Excellent		0	1	0	0	0	N/A	N/A	N/A	N/A	N/A	1
Satisfactory		1	0	1	1	1	N/A	N/A	N/A	N/A	N/A	4
Poor		0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	0
Unsatisfactory		0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	0
S6 – Access to Quality Education Programs												
Excellent		0	0	1	0	0	0	N/A	N/A	N/A	N/A	1
Satisfactory		1	1	0	1	1	1	N/A	N/A	N/A	N/A	5
Poor		0	0	0	0	0	0	N/A	N/A	N/A	N/A	0
Unsatisfactory		0	0	0	0	0	0	N/A	N/A	N/A	N/A	0
S7 – Professional Development and Training												
Excellent		1	0	0	0	0	0	1	N/A	N/A	N/A	2
Satisfactory		0	1	1	1	1	1	0	N/A	N/A	N/A	5
Poor		0	0	0	0	0	0	0	N/A	N/A	N/A	0
Unsatisfactory		0	0	0	0	0	0	0	N/A	N/A	N/A	0

Standard 4. **CURRICULUM:** The district, each of its schools, and programs utilize curricula that are aligned with the state curriculum frameworks in the core academic subjects of English Language Arts (ELA), mathematics, science and technology, history and social science, and world languages. The curricula are current, academically sound, and clearly understood by all who administer and teach in the district.

2003-2004 Indicators:

1. A curriculum leader is assigned to and active in every school in the district.
2. Teachers in all of the district’s schools:
 - a. have access to the current curriculum;
 - b. are trained in their use; and
 - c. are expected to use them in planning and delivering instruction.
3. The district has an established, well-documented process involving teachers in the annual review and/or revision of curriculum based on the analyses of results of standardized tests.
4. Modifications and/or revisions to curricula are:
 - a. evaluated for their effectiveness in improving equitable student achievement for all student populations; and
 - b. revised as necessary and disseminated to staff.

Appendix C. Indicator Methodology

5. The district regularly implements an established, well-documented process to ensure:
 - a. horizontal instructional program articulation throughout the system; and
 - b. alignment with the state curriculum frameworks across all Grades PreK-12.
6. Instructional time in each content area:
 - a. meets state requirements at each level; and
 - b. meets the educational needs of students as determined through an analysis of student achievement data.
7. Staffing levels are adequate to deliver the district's curriculum to all students.

2005: Domain B. Curriculum and Instruction

Standards ▼	Indicators ►	1	2	3	4	5	6	7	8	9	Total
Domain B – Curriculum and Instruction											
S4 – Curriculum											
Excellent		0	0	0	0	0	0	0	0	N/A	0
Satisfactory		0	0	0	0	0	0	0	0	N/A	0
Poor		1	1	1	1	1	1	1	1	N/A	8
Unsatisfactory		0	0	0	0	0	0	0	0	N/A	0
S5 – Instruction: Expectations and Policies											
Excellent		0	0	0	0	0	0	0	0	0	0
Satisfactory		1	0	0	0	0	0	0	0	0	1
Poor		0	1	1	1	1	1	1	1	1	8
Unsatisfactory		0	0	0	0	0	0	0	0	0	0
S6 – Access to Quality Education Programs											
Excellent		0	0	0	0	0	0	0	0	N/A	0
Satisfactory		1	0	1	0	1	0	1	1	N/A	5
Poor		0	1	0	1	0	0	0	0	N/A	2
Unsatisfactory		0	0	0	0	0	1	0	0	N/A	1
S7 – Professional Development and Training											
Excellent		0	0	0	0	0	0	0	N/A	N/A	0
Satisfactory		1	0	0	0	0	1	0	N/A	N/A	2
Poor		0	0	1	1	1	0	1	N/A	N/A	4
Unsatisfactory		0	1	0	0	0	0	0	N/A	N/A	1

Standard 5. CURRICULUM: For the period of time under examination, the district, each of its schools, and programs utilized curricula that were aligned with the State Curriculum Frameworks in the core academic subjects of English Language Arts (ELA), math, science and technology (and other tested core academic subjects as added). The curricula were current, academically sound, and clearly understood by all who administered and taught in the district.

2005 Indicators:

1. The district had written curricula for all grade levels and tested core content areas that were clearly aligned with the State Curriculum Frameworks.

2. Each school in the district had a curriculum leader to oversee the use, alignment, quality, currency, and consistency of the district's curricula.
3. The district had an established, documented process that involved teachers in the annual review and/or revision of curricula based on the analyses of results of standardized tests.
4. (In academic districts) The results of student assessment data (i.e., longitudinal, demographic, disaggregated, diagnostic, and/or surveys) indicated that the district implemented an established process to ensure the scope, sequence, and alignment of learning goals, competencies, and expectations from one grade to the next in grades K-12 in ELA, mathematics, science and technology (and other tested core academic subjects as added).
5. The district's curricula in all tested content areas were aligned horizontally to ensure that all teachers of a common grade level addressed specific subject matter following the same time line, and vertically to ensure complete coverage, eliminate redundancies, and close any gaps.
6. Modifications to the curriculum resulted in improved, equitable achievement for all student populations.
7. Staffing levels were adequate to deliver the district's curriculum to all students, as indicated by equitable rates of improvement for all student populations.
8. The district established practices that adequately provisioned for and supported the curriculum and its overall effectiveness in all assessed subject areas and all levels.

Appendix C. Indicator Methodology

Domain B - Curriculum and InstructionH

This study relies upon EQA assessment data outcomes from Domain B - Curriculum & Instruction. In the EQAs completed for 2003-04 the Domain B: Curriculum and Instruction tables, for the most part, included only two Standards (below).

		S3-Curriculum		S4-Professional Development						
Standards ▼	Indicators ►	1	2	3	4	5	6	7	8	Total
Domain B – Curriculum and Instruction										
S3 – Curriculum										
Excellent		0	0	0	0	0	0	0	0	0
Satisfactory		1	1	0	1	1	0	1	1	6
Poor		0	0	1	0	0	0	0	0	1
Unsatisfactory		0	0	0	0	0	1	0	0	1
S4 – Professional Development										
Excellent		0	0	0	0	0	0	N/A	N/A	0
Satisfactory		0	0	1	1	1	0	N/A	N/A	3
Poor		1	1	0	0	0	1	N/A	N/A	3
Unsatisfactory		0	0	0	0	0	0	N/A	N/A	0

Most of the EQAs completed for 2005-06 had four Standards (below) under the Domain B: Curriculum & Instruction assessment table.

		S5-Curriculum		S6-Instruction		S7-Opportunity & Access			S8-Professional Development		
Standards ▼	Indicators ►	1	2	3	4	5	6	7	8	9	Total
Domain B – Curriculum and Instruction											
S4 – Curriculum											
Excellent		0	0	0	0	0	0	0	0	N/A	0
Satisfactory		0	0	0	0	0	0	0	0	N/A	0
Poor		1	1	1	1	1	1	1	1	N/A	8
Unsatisfactory		0	0	0	0	0	0	0	0	N/A	0
S5 – Instruction: Expectations and Policies											
Excellent		0	0	0	0	0	0	0	0	0	0
Satisfactory		1	0	0	0	0	0	0	0	0	1
Poor		0	1	1	1	1	1	1	1	1	8
Unsatisfactory		0	0	0	0	0	0	0	0	0	0
S6 – Access to Quality Education Programs											
Excellent		0	0	0	0	0	0	0	0	N/A	0
Satisfactory		1	0	1	0	1	0	1	1	N/A	5

Note that the Curriculum standard is referred to as S3 in the EQAs completed for 2003-04 and S5 in the EQAs completed for 2005-06.

Appendix C. Indicator Methodology

Curriculum Standard

The curriculum standard is measured by a maximum of eight Indicators. Unfortunately, differences exist in the sequencing and description of indicators used in 2003-04 (S3) versus those used in 2005-06 (S5). Below are the descriptions provided for the indicators from the two time periods.

EQAs 2003-04 S3-Curriculum Indicators

1. The district has developed functional, high quality curriculum guides in all content areas that include the requisite information.
2. Every teacher has full access to the curriculum guides, is trained in their use, and employs them in the classroom.
3. There is a comprehensive District Curriculum Articulation Plan that addresses the diverse student learning needs. The curriculum is modified to increase the success rate of all populations, including ELL, vocational education students, and students with disabilities.
4. The district has a process involving teachers in the annual review and revision of curriculum.
5. A curriculum leader guides every school in the district.
6. Instructional time in each content area meets the state requirements and the educational needs of students as determined through an analysis of student performance.
7. Funding levels are realistic for adequate staffing, professional development, textbooks, instructional materials, and equipment.
8. Instructional program articulation exists across Grades PreK-12 and is aligned with the state curriculum frameworks.

EQAs 2005-06 S5-Curriculum Indicators

1. The district had written curricula for all grade levels and tested core content areas that were clearly aligned with the State Curriculum Frameworks.
2. Each school in the district had a curriculum leader to oversee the use, alignment, quality, currency, and consistency of the district's curricula.
3. The district had an established, documented process that involved teachers in the annual review and/or revision of curricula based on the analyses of results of standardized tests.
4. The results of student assessment data (i.e., longitudinal, demographic, disaggregated, diagnostic, and/or surveys) indicated that the district implemented an established process to ensure the scope, sequence, and alignment of learning goals, competencies, and expectations from one grade to the next in grades K-12 in ELA, math, science and technology (and other tested core academic subjects as added).
5. The district's curricula in all tested content areas were aligned horizontally to ensure that all teachers of a common grade level addressed specific subject matter following the same time line, and vertically to ensure complete coverage, eliminate redundancies, and close any gaps.
6. Modifications to the curriculum resulted in improved, equitable achievement for all student populations.
7. Staffing levels were adequate to deliver the district's curriculum to all students, as indicated by equitable rates of improvement for all student populations.
8. The district established practices that adequately provisioned for and supported the curriculum and its overall effectiveness in all assessed subject areas and all levels. Student Assessment Standard

Appendix C. Indicator Methodology

Accuracy of the Data

In the interest of representing EQA assessment data as accurately as possible and to insure that all of the districts in this report be represented fairly, it was necessary to cross-reference the indicator sequencing and descriptions between the two time periods described above. Because the focus of this study is on “curriculum,” only those indicators directly related to curriculum were initially examined. However, in the interest of fairness to the individuals in the field, the indicator representing Staffing Levels was also added to the equation.

The table below illustrates how differences between the S3-Curriculum (2003-04) and S5-Curriculum (2005-06) Indicators were resolved. Indicator 2 from 2003-04 was re-stated by Indicator 8 in 2005-06. For purposes of doing a statewide comparison of district EQAs spanning the years from 2003 to 2006, both of these were re-coded as the indicator Curriculum Implementation. Indicator 5 in 2003-04 was broken up into Indicators’ 2 & 5 in 2005-06. These were re-coded as the indicator Curriculum Alignment.

In the summary statistics the Curriculum Average, or mean average, of Curriculum Implementation and Curriculum Alignment is included, along with the original indicators, as an option for parsimony when comparing curriculum and other assessment outcomes. The following standard was followed for the EQA reported data:

- If one indicator was labeled as N/A, and the other had been scored, the score was entered.
- If both indicators had an identical score, that score was used but only as a single entry.
- If the indicators had different scores, the average of the two was used as a single entry.

District EQA	
Domain B. Curriculum and Instruction	
Standard: Curriculum	
Indicator: Curriculum Implementation	
<p>2003-04 Indicator 2. Teachers in all of the district’s schools: a. have access to the current curriculum; b. are trained in their use; and c. are expected to use them in planning and delivering instruction.</p>	<p>2005-06 Indicator 8. The district established practices that adequately provisioned for and supported the curriculum and its overall effectiveness in all assessed subject areas and all levels.</p>
Indicator: Curriculum Alignment	
<p>2003-04 Indicator 5. The district regularly implements an established, well-documented process to ensure: a. horizontal instructional program articulation throughout the system; and b. alignment with the state curriculum frameworks across all Grades PreK-12.</p>	<p>and tested core content areas that were clearly aligned with the State Curriculum Frameworks.</p> <p>Indicator 5. The district’s curricula in all tested content areas were aligned horizontally to ensure that all teachers of a common grade level addressed specific subject matter following the same time line, and vertically to ensure complete coverage, eliminate redundancies, and close any gaps.</p>
<p>2005-06 Indicator 2. The district had written curricula for all grade levels</p>	

Endnotes

1. The EQA publishes these performance assessment outcomes for “Domain B. Curriculum and Instruction” standards and indicators in a table format.
2. National Commission of Excellence in Education. (1983). *A Nation at Risk: The imperative for educational reform*. Washington, DC: U.S. Government Printing Office. p. 5.
3. *Scholastic Aptitude Test Score Averages, by State: 1974-75 to 1993-94*. Digest of Education Statistics Tables and Figures. Institute of Education Statistics, U.S. Department of Education.
4. Lauber, W.F. (1993, November 16). *Goals 2000: The ‘Washington knows best’ approach to school reform*. Issue Bulletin No. 185. Washington, DC: Heritage Foundation.
5. An Act Establishing the Education Reform Act of 1993, G.L. Chapter 71.
6. Some legal scholars refer to the period since these finance cases began as the “third wave” of state court decisions on school financing. The first wave (1960-1972) was characterized by claims that the equal protection clause of the U.S. Constitution had been violated, and the second wave (1972-1988) by claims that unequal funding violated state constitutional guarantees of equity. W.E. Thro, “The Third Wave: The Impact of the Montana, Kentucky and Texas Decisions on the Future of Public School Finance Reform Litigation,” *Journal of Law and Education* 19, no. 2 (1990).
7. Massachusetts Department of Education, “Report of the Foundation Budget Review Commission,” Legislative Report (June, 2001): <http://www.mass.gov/legis/reports/foundation.htm>
8. Source: Education Reform Act of 1993, M.G.L. Chapter 71., Sections 1D & 1E
9. G.J. Cizek, *Setting Performance Standards: Concepts, Methods, and Perspectives* (Mahwah, NJ: Lawrence Erlbaum, 2001).
10. D.P Mayer et al., “Monitor School Quality: An Indicators Report,” U.S. Department of Education, Office of Educational Research and Improvement, 2000.

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