Massachusetts School District Responses to Standards-Based Reform:
Issues of Implementation and the Impact of the MCAS

by

Tamara M. Sakagawa

B.A. Environmental Design
University of California, Berkeley, 1995

SUBMITTED TO THE DEPARTMENT OF URBAN STUDIES AND PLANNING IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF

MASTER IN CITY PLANNING
AT THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2000

© Tamara M. Sakagawa. All rights reserved.

The author hereby grants to MIT permission to reproduce
and to distribute publicity paper and electronic
copies of this thesis document in whole or in part.

Signature of Author: ____________________________

Department of Urban Studies and Planning
May 18, 2000

Certified by: ____________________________
Professor Frank Levy
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by: ____________________________
Associate Professor Paul Smoke
Chair, MCP Committee
Department of Urban Studies and Planning
Massachusetts embarked on an extensive mission to reform its failing public education system in 1993 with the enactment of the Education Reform Act. The Reform Act was noteworthy for being the first piece of legislation that was designed to raise the standards of education for all public school students through a series of policies that affected all aspects of public education including, educational spending, teacher hiring, curriculum development, and accountability. The most critical and controversial piece of the legislation was the Massachusetts Curriculum Assessment System, a test of student knowledge of curriculum and standards that was administered at three grade levels across five subject areas. The MCAS test included a high-stakes component, which meant that all tenth graders were required to pass the exams in order to graduate beginning in the year 2003.

With the year 2003 rapidly approaching, districts across the state are attempting to accelerate the pace of implementation of reform efforts. MCAS test scores released for the years 1998 and 1999 have not been encouraging in that districts have reported huge percentages of students failing the exam and there has been little improvement in test scores over time.

This thesis is a report of how three districts that believe in the reform effort and the MCAS are dealing with the implementation of reform. Wobum, Springfield and Greenfield are notable because they represent three very different communities that are all struggling with the same issues. Interviews conducted for this study have shown that these three districts have taken similar paths and face similar challenges. All districts have completed extensive self-evaluations and goal-setting exercises. All districts have elected to focus on curriculum alignment and instructional improvement through professional development. And all districts and schools have begun to use both qualitative and quantitative data to inform instructional practice.

However, even with these similarities in approach, individual districts are experiencing different results as measured by MCAS test scores, and the districts as a groups are still seeing limited gains in student performance, particularly at the upper grade levels. This thesis attempts to explain some of the barriers that impede progress or that interfere with the true reporting of progress to date and suggests areas for further research.
Acknowledgments

This project would not have been possible without the assistance and support of a number of people and organizations.

I would like to thank Andy Calkins and Kerry Callahan of Mass Insight Education for their knowledge and insight into education reform in Massachusetts and their assistance in opening doors to districts that would otherwise have been unwilling to talk with me. In addition, a great deal of appreciation goes to the three districts that agreed to participate in this study. Woburn Public Schools, Springfield Public Schools and Greenfield Public Schools, were all kind enough to allow me access to their offices and staff. Dr. Peter Negroni, Assistant Superintendent Louise Nolan, Dr. Basan Nembirkow, and Director Carol Jacobs in particular spent a great deal of time explaining their district operations and introducing me to others who could help to flesh out their stories.

I would especially like to thank my driver and companion throughout the thesis process, Chris Nicholson. He was responsible for schlepping me to areas outside of the normal reach of public transportation and in the process became a great friend. I hope that he enjoyed meeting people in the field as much as I did.

And finally, I want to express my appreciation to Robert Schwartz and Frank Levy for their unfaltering assistance with this project. They have both been extremely positive about the research, and have helped to motivate me to stay the course and finish the job. Without them, I would be sunk.
# TABLE OF CONTENTS

ABSTRACT 2

ACKNOWLEDGMENTS 3

TABLE OF CONTENTS 4

CHAPTER 1: INTRODUCTION 6

CHAPTER 2: BACKGROUND 10

- **Education Reform Act of 1993 and the Massachusetts Comprehensive Assessment System** 10
- **Standards-Based Reform** 12
- **What is an Educational Standard?** 15
- **Implementation** 16

CHAPTER 3: METHODOLOGY 18

- **District Selection** 18
- **Interview Questions** 19

CHAPTER 4: WOBURN PUBLIC SCHOOLS 21

- **A Jump Start on Standards-Based Reform** 21

CHAPTER 5: SPRINGFIELD PUBLIC SCHOOLS 28

- **Large District, Urban Problems** 28

CHAPTER 6 - GREENFIELD PUBLIC SCHOOLS 34

- **Data-Driven Accountability** 34

CHAPTER 7 - ANALYSIS 40
CHAPTER 8 - CONCLUSION

FIGURE 1 - STATEWIDE MCAS DATA

FIGURE 2 - WOBURN MCAS DATA

FIGURE 3 - SPRINGFIELD MCAS DATA

FIGURE 4 - GREENFIELD MCAS DATA

APPENDIX A

BIBLIOGRAPHY
Chapter 1: Introduction

The need for educational reform has been at the forefront of public issues for federal and state policy makers since the release of *A Nation at Risk: The Imperative for Educational Reform* in July of 1983. This report, released by the National Commission on Excellence in Education, highlighted the shortcomings of this country's public schools. It reported startlingly low statistics concerning high school graduates' levels of literacy, as well as statistics that compared the literacy of America's students to that of students in other countries. Students of America's public schools were not meeting the standard levels of literacy reported in other industrialized nations. According to the data contained in *A Nation at Risk*, as a result of generations of students with marginal academic achievement, the United States was rapidly losing its global competitive advantage.

Within the first three years after the report had been released, state boards of education and state legislatures created at least 300 study commissions and proposed numerous reform measures. Many states began to raise graduation requirements, lengthen the school day, raise certification requirements for teachers, and institute statewide assessments of students. Unfortunately, all of the activity at the state level did not result in overwhelming improvement in the public school system. These early educational reform efforts only served to prove that an overhaul of the public school system was an extremely complex venture, which required multiple levels of sustained intervention, flexibility and creativity.

As a result of the publication of reports like *A Nation at Risk*, state governors at the 1986 National Governors Association Convention placed the issue of education reform at the top of the agenda. At this meeting, governors had a chance to work directly with national experts in education and to speak with each other about efforts to stimulate reform in each of the different states. The result of the 1986 meeting was a report called *Time for Results*, which effectively created a statement to the education community that communities would be given greater flexibility and control over resources with the promise that there would be more accountability for results. In addition, it was made clear to the public that governors had placed education reform at the tops of their agendas.

This first education summit was followed by another bipartisan gathering of governors led in 1989 by then President George Bush. At this summit, governors who had been working independently on education reform in their own states introduced the idea of national goals for education. It was their belief that national goals would be useful guidelines for states to use in their own education reform activities. This initiative was not intended to produce additional federal programs or policies; rather its intent was to encourage flexibility of existing programs. In 1991, this strategy for national goals was released by the Department of Education and was called *America 2000*. This strategy included a plan for community organizing to generate support for national standards, the design and development of New American Schools to be funded privately through development and publicly in implementation, demonstration grants for school choice programs, and voluntary national achievement tests. As this legislation wound its way through Congress it met with stumbling blocks due to its attempt to straddle the interests of both Republicans and Democrats in Congress. According to Robert Schwartz and Marian Robinson in their account of *Goals 2000 and the Standards Movement*, "the congressional response to America 2000 was a reminder of just how difficult it is to craft a federal leadership role in education that can generate broad bipartisan support, especially when the focus shifts from programs targeted to specific groups of students in need of federal protection to a strategy aimed at raising the achievement of all children". Conservative Republicans took issue with the

---

1 Ehrenberg, Ronald G.; *Do School and Teacher Characteristics Matter?*
3 Ibid.
idea of another big government program, and Democrats questioned the national standards and testing. The legislation was ultimately killed in the Senate.

President Clinton revived the issue in 1992 with Goals 2000, a variation on America 2000 with a few critical changes. Goals 2000 recognized that state governments played an important role in leading the charge and developing and implementing education policies which demanded high expectations for students. In addition, Goals 2000 took into account recent reports of states that were in the process of developing state policies that attempted to raise education standards and student performance. As a result, the Goals 2000 legislation shaped up to be a state grants program that offered financial support for state standards-based reform activities. It was written with the understanding that states were responsible for developing their own standards and assessment using the national standards as guidelines and benchmarks. In this way, states could use federal funds to augment the budgets for existing reform programs or begin to develop standards and assessments.  

Massachusetts, like many other states, has responded to Goals 2000 with its own Education Reform Act passed by the state legislature in 1993. The Reform Act was a standards-based education reform strategy that provided for more equitable state spending across all Massachusetts educational districts, demanded accountability for student learning, and instituted statewide content and performance standards for students, teachers, schools and districts.

A new statewide test, the Massachusetts Comprehensive Assessment System (MCAS) was developed to measure student understanding of the learning standards in new ‘Curriculum Frameworks’, that described what teachers were supposed to teach and children were supposed to learn in each subject area for each grade at grades 4, 8 and 10. The MCAS measures student, school and district achievement at grades four, eight and ten in the core subjects of Mathematics, Science and Technology, History and Social Science, English/Language Arts, and eventually, Foreign Languages. Students receive performance scores that are distributed in one of four categories: Advanced, Proficient, Needs Improvement, and Failing. The test results are used as a means of monitoring school, teacher and student progress, against established state performance standards and to highlight areas of teaching and learning that need improvement. In addition, by the year 2003, all high school students will have to demonstrate that they have achieved the standards assessed on the tenth grade MCAS test as one of the conditions of high school graduation.

The MCAS tests for English/Language Arts, Mathematics, and Science and Technology were developed in 1997. To date, the Massachusetts Department of Education has administered the test and compiled results for the years 1998 and 1999. These results have not been encouraging.

Test results from May 1998 were to be used as a baseline from which to measure all future test scores (see Figure 1). The 1998 results showed that all Massachusetts students, and particularly those at the eighth and tenth grade levels, had scored extremely low. In fact, it was reported that 52% of tenth graders were at the Failing level in Mathematics. 42% of eighth graders were categorized as Failing as well.

The results from 1999 are not much better. For these same cohorts, 53% of tenth graders and 40% of eighth graders were performing at the Failing level. If students continue to perform at this level, Massachusetts is in serious danger of failing to graduate a substantial portion of its students. More importantly, these scores

---

4 Goals 2000: Educate America Act, was signed into law in 1994. The Act was described as, “to improve learning and teaching by providing a national framework for education reform; to promote the research, consensus building, and systemic changes needed to ensure equitable educational opportunities and high levels of educational achievement for all students; to provide a framework for reauthorization of all Federal education programs; to promote the development and adoption of a voluntary national system of skill standards and certifications; and for other purposes”. H.R. 1804 Goals 2000: Educate America Act, 103 Congress of the United States of America, January 25, 1994.
reflect a student population that cannot meet prescribed state standards, the implication of which is that they are receiving inadequate public education.

Now that the state has received results from the first two years of testing, the question then becomes, what are school districts doing to respond to the large percentage of students that are failing to meet the minimum state standards? In particular, how are districts with high percentages of students in the *Failing* category responding to the apparent shortcomings in curriculum or organization? Are their responses to the Reform Act dependent upon the size and resources of their district, or the demographic makeup of their district?

As the demand for improvements in the American public school system increases, states are turning increasingly to standards-based reform models that raise the academic expectations for students and the teaching performance requirements for administrators and teachers. High-stakes testing instruments like the MCAS become the accountability measurement by which the public can monitor the progress of these reforms. However, these standards requirements and associated test measurements are established without instructions or information for districts to use in implementation. Districts receive the message from the state, and are expected to slog through the process on their own. This may be the result of a growing policy emphasis on bypassing local schools and districts as the units of change, as numerous reports have shown that there is little evidence of the effectiveness of instructional improvement at the local level. This is reported to be the result of local capacity issues, and messy organizational bureaucracy at the district and school levels.

However, there is a disconnect between the desire and development of policy at the state level and its ultimate implementation at the classroom level. While the impetus for formalized education reform is at state and national levels, the actual process of teaching and learning is still very much dictated in individual classrooms. State and federal policies do very little to remove control of implementation functions from schools to states in order to better align the policy intent with direct policy application. While more states move to this model of education reform, it is important to understand the benefits and pitfalls of combining “centralized” policy standards of education within a “decentralized” system of policy implementation. More importantly, tracking implementation roadblocks or successful strategies helps to inform future policies and practices and verifies that public resources have are well spent.

How Massachusetts deals with this issue is particularly interesting due to its history of having extremely independent school districts and district leadership. A superintendent new to the district was quoted to have said that it was the “New England, Yankee independent spirit” that had until the Education Reform Act and the MCAS prevented the standardization of educational practice in the state and had hindered the delivery of quality education to all students. Prior to the Reform Act and the MCAS, individual districts had curriculum standards with loose accountability and were left to make their own decisions on instruction and outcomes. The implementation of a framework of state-mandated standards and assessment on districts as independent as those in Massachusetts will be extremely informative for other states who are struggling with current issues of district autonomy in curriculum and instruction. In addition, the implementation of new programs and processes by Massachusetts districts that are trying to meet the new standards will be informative to other local districts that are struggling within the same state parameters.

This paper will attempt to outline the responses of a few of Massachusetts’ school districts to the demand for student achievement at the new state standards. It will begin to describe how the districts of Woburn, Springfield and Greenfield have begun to approach the challenge of standards-based reform, and will attempt to describe their successes and challenges as they move forward in fulfilling the mandates of the Education

---

6 Interview with Superintendent Basan Nembirkow, Greenfield Public Schools, April 6, 2000.
Reform Act. It will attempt to draw some parallels and areas of divergence that suggest further exploration and will point out interesting observations by the teachers and administrators in the field.

This paper is by no means a comprehensive analysis of district approaches to implementing standards-based reform. It is simply a snapshot of a select group of districts that were interested in telling their stories and sharing their experiences with others. More importantly, it is a discussion of districts that are working hard at making the standards a success, and the assumptions that they have made about the process of implementation.

Chapter Two outlines the basics of the Massachusetts Education Reform Act and begins to point out the various components that are driving how schools and districts must change their practices to meet the new state requirements. It introduces the Curriculum Frameworks and the Massachusetts Comprehensive Assessment System (MCAS) and explains how these are the two major factors around which the reform movement in the state revolve. To better explain how the Curriculum Frameworks and MCAS fit into educational reform as a whole, Chapter Two also includes a brief introduction to the standards movement, and describes what is meant by educational standards and how this relates to the Massachusetts cases. Most importantly, Chapter Two concludes with a discussion of policy implementation challenges, in particular barriers to implementing education policy, and external factors that hamper success.

Chapter Three describes the process by which the three districts were selected for study and points out areas of bias and discrepancy.

Chapters Four through Six are the cases of Wobum, Springfield and Greenfield, respectively. These chapters provide information about both the communities and the districts, the demographic makeup of citizens and students, and the histories of the communities and of the schools. In addition, these chapters will discuss the processes these districts have used to come to decisions about program or administrative changes in light of the Reform Act. Programs and practices that these districts have in place will be explained and diagrammed, as will district administrators’ opinions about the challenges and barriers to success.

Chapter Seven begins analyze the successes and failures of each of the districts and attempts to draw connections between the implementation methods of the three districts and how these methods are dictated by both external community conditions, and internal organization conditions.

Chapter Eight concludes the study and suggests some areas of further investigation and research.
Chapter 2: Background

**Education Reform Act of 1993 and the Massachusetts Comprehensive Assessment System**

The Massachusetts Education Reform Act was enacted in 1993 after a series of efforts in the Commonwealth of Massachusetts to change the failing system of public education. The Reform Act was a full-scale approach to reform, complete with changes in administrative procedures related to hiring, training, licensing, firing and tenure; changes to education programs including new state curriculum frameworks, technology initiatives and early childhood education; changes in both local and state governance including the adoption of individual school-site councils; changes to educational finance including increases in state spending; and changes in performance expectations for students, including new graduation requirements such as completion of the Massachusetts Comprehensive Assessment System (MCAS) test. What made this a landmark piece of legislation was not only the breadth of issues it addressed, but more importantly, its emphasis on equity in education through accountability measures for both students and education administrators. The Education Reform Act attempted to put an end to the differences in the quality of education delivered across different socio-economic communities by requiring that all students be taught the same curriculum and demonstrate their knowledge of such through a standard competency measurement. There was a belief that all students were capable of learning and that all students should leave the public school system prepared for higher education or immediate employment with a substantial knowledge of basic skills which were to be outlined by the state and called Curriculum Frameworks.

The Reform Act legislated that the Massachusetts Department of Education would develop a series of Curriculum Frameworks in the subject areas of English/Language Arts, Mathematics, History and Social Science, Science and Technology, Foreign Languages and the Arts. These frameworks were developed to ensure that each student in the Commonwealth was learning the same material and that there was a state standard of education for all students. In turn, individual school districts were to adjust or overhaul their existing curricula to ensure alignment with the new standards. Concurrently, both districts and schools were to make sure that both administrators and teachers were familiar with the new curriculum by providing assistance through school and district professional development programs and the institution of more stringent hiring requirements for new teachers. Assessments of this progress would be made using students as the unit of measurement— if teaching professionals have sufficient knowledge of their subject and adequate resources available to teach the material, this would be reflected in improved student performance.

In addition, it was legislated that demonstration of knowledge of the state curriculum was required in order to graduate from high school. This was the ‘high-stakes’ component of the assessment. All high school seniors as of the year 2003 would be required to have passed assessments in all subject areas in order to be promoted. In the spirit of providing the same quality and standard of education for all students, special education students and limited English speaking students must also be assessed using the same standards.

---

7 The Education Reform Act of 1993 can be viewed in its entirety on the Massachusetts Department of Education website. The areas of reform cited are from the following sections of the act: Section 22, Attracting Excellence to Teaching Program; Section 41, School Personnel Certification; Section 78, State Professional Development Plan; Section 45, Repeal of Certain Principal Employment Protections; Section 85, Deadline to Establish Curriculum Frameworks; Section 17, Statewide Educational Technology Plan; Section 70, Early Childhood Education, Section 35, School Committee Authority; Section 53, Principals and School Councils; Section 63, Requiring Local Municipalities to Fund Schools; Section 68, State School Spending Increases; Section 81, Deadline for Student Academic Standards; Section 82, Effective Deadline for Certificates/Competency Determination. *Massachusetts Education Reform Act of 1993,* Massachusetts Department of Education website, http://www.doe.mass.edu

8 High school seniors in the class of 2003 will be required to receive a passing score only for only the English Language Arts and Mathematics tests. The class of 2003 is exempt from testing in the remaining subject areas, Science and Technology, History and Social Science, and Foreign Languages, because the districts have not had adequate time to implement the revised Curriculum Frameworks in these areas.
The Department of Education created a means by which to measure students’ comprehension of the Curriculum Frameworks and a tool for teachers and administrators to use to inform improved teaching practices. The assessment tool was called the Massachusetts Comprehensive Assessment System, or MCAS, which was first administered to students in the subjects of English/Language Arts, Mathematics and Science and Technology in 1998, just one year after the Curriculum Frameworks for these subject areas were released.9

The results of this first test were surprisingly poor and led to a public assessment of the school system (see Figure 1). 1998 MCAS test data showed that 15% of all Massachusetts fourth graders, 14% of eighth graders, and 28% of all tenth graders who took the English Language Arts test failed to meet the state-mandated standards. Even worse, 23% of fourth graders, 42% of eighth graders, and 52% of tenth graders failed the Mathematics portion of the exam.10 These figures created a stir with numerous news articles and reports questioning both the competency of public school teachers and administrators and the validity of the test itself. Of even greater concern was that there was a very real danger of a substantial portion of the student population being unable to pass the exam to fulfill graduation requirements. This created a political nightmare for policy makers and an ugly reality for students.

It soon became apparent that no matter what measures schools had already put in place to implement standards-based reform, their efforts had been insufficient or misdirected. Public schools were under the gun to substantially improve scores in time for the next round of testing and that all schools and districts would have to rethink the methods used to implement standards-based reform, or schools and districts would have to redouble their efforts to push reforms already in progress. As legislated by the Reform Act, districts and schools that failed to perform to the new standards run the risk of being reconstituted by the state.

Some schools and districts that had already begun to implement the Curriculum Frameworks continued to do so in earnest. Others changed their implementation based on information gleaned from MCAS data, and still others that had attempted to ignore the Reform Act before, realized that they would have to develop a strategy for improving student performance on the exam because the Reform Act was not going to go away. There are accounts that there are still a few rogue districts in the Commonwealth that are ignoring the Reform Act altogether.

1999 MCAS results were released and reviewed with much anticipation. Unfortunately, over the course of a year, there was little positive change in the test score results. The percentage of fourth and eighth graders in the state receiving a Failing score on the test across the two subject areas, English/Language Arts and Mathematics had decreased. Fourth graders had reduced the percentage of students failing in Science and Technology, while the percentage of eighth graders who did not pass increased. More frightening, was that across all three subject areas, the percentage of tenth graders receiving a failing score increased.

It is possible that the high percentages of students failing the exam across all grades may be the result of special needs students who are not adequately prepared to take the exam. According to a study that was

---


*The Education Reform Act legislated that the Commissioner of Education, “develop, pursuant to section one E of the General Laws, curriculum frameworks for mathematics, science and technology, history and social science, English and foreign languages no later than January first, nineteen hundred and ninety-five, and shall develop curriculum frameworks for the arts no later than January first, nineteen hundred and ninety-six”.

Massachusetts Education Reform Act of 1993; Massachusetts Department of Education website.

released by Mass Insight Education in April 2000, large percentages of students falling into the Failing category are in fact special needs students, or students who are on different curriculum alignments due to their special status or things beyond their control. According to the report, approximately 20% of the students who failed the mathematics portion of the 1999 MCAS test were special education students. 1.5% of the Failing category in mathematics were classified as Limited English Proficient. In addition, in large urban areas, there were groups of students who had no chance of passing the math portion of the exam because the mathematics curriculum had not yet been aligned in their schools and districts. These tended to be student in vocational education programs, and student in schools that were offering Algebra 1 or less in the tenth grade. Given these statistics, it's not surprising that the numbers of students failing the exam are not dropping more rapidly. These studies also indicate that demographics and the socio-economic conditions of communities do matter in the larger context of implementing reform.

In addition, many districts may not be experiencing substantial improvements in middle school and high school test scores because until recently, much of the reform effort has been focused at the elementary school level. Many educators believe that beginning reform for younger students has more staying power because learning and knowledge is a cumulative process. Elementary students that are given more skills earlier have a better chance at succeeding in future grades. As a result, high school reform efforts have only just begun.

However, this still does not completely explain the high rates of failure and the lack of improvement. A number of questions remain concerning the efficacy of the reform interventions selected by each district and school, the adequacy of the length of time outlined by the Reform Act in which we should see change, the ability of all students to meet the standards, and the validity of the method of measurement. Amidst these questions and the bad press surrounding the MCAS, the importance and intent of standards-based reform has been missed; that the test is highlighting possible areas of learning improvement for students, and that the application of standards to all students is a change in thinking from some students will learn, to all students can learn.

Standards-Based Reform
The standards-based reform movement began in the late 1980's and grew out of a national consciousness that there was an overwhelming need for systemic reform in a system that was by its very nature, disparate, fragmented and autonomous. Because the United States, unlike many European and Asian countries, did not have national control of education, each state and district made its own decisions about curriculum and instruction. The result was a mishmash of programs and initiatives that resulted in severe disparities in the quality of education not only across states and districts, but also disparities within districts, schools and classrooms. As the need for a "good" education has become more and more critical in an increasingly global economy that values broad-based knowledge over a strong back or nimble hands, the need for a more comprehensive, challenging education for all children has become even more important.

Numerous researchers have written about the need for changes in schools in order to meet modern challenges brought on by the transition of the United States to a service and information-oriented economy. According to this school of thought, in the past it was sufficient to train an elite group of future leaders to use their minds well, while the majority of the population was able to be sufficiently employed as workers with basic knowledge. This worked well when the United States was largely a manufacturing economy, where most citizens could make a decent living in the manufacturing sector, and where broad education was deemed unnecessary. The argument works to a point. While the current state of the economy is extremely strong and the dire predictions that less-skilled citizens would be unable to find employment have, in the

short-term, been false, there is still a moral and national obligation to ensure that all children are given the same opportunities to learn. Although we are experiencing extremely low state and national levels of unemployment, the skill requirements for today’s students to truly compete in the new world economy still have changed dramatically. Lauren Resnick and Katherine Nolan summarize the needs of today’s students best when they state:

"... at the beginning of the twenty-first century, the world will have few rewards for individuals or nations that limit themselves to educating only a few to think. To maintain a high-wage economy, almost all individuals will have to think their way through their workdays: analyzing problems, proposing solutions, troubleshooting and repairing equipment, communicating with others and managing resources of time and materials... The time has come for American schools to set their sights higher, to move from their inherited preoccupation with low-level fact and skill learning to goals of thinking, reasoning and problem-solving for every student."

The new thinking skills that Resnick and Nolan mention are those that are required by the high-paying, sustainable jobs that will still be viable in weaker economic times. These are the types of jobs that a successful standards-based reform policy should be able to make available to all students. In order to achieve this type of change, there was a need for systemic reform that affected all aspects of the education system, including curriculum, textbooks and instruction, teacher education and professional development, school management, community relations, and social service delivery systems. There was, and still remains, little agreement as to where to begin to make initial interventions. There are those that support school management as the first area to reform, then there are those that insist that teacher preparation and professional development will have the most impact. Whatever the case, it was apparent that however reform was to take place, there needed to be some guidelines by which to measure change and assessments by which to make those measurements. Standards supporters believed that if there could be agreement as to what students should be learning, and if those “standards” could be adopted and internalized by all schools and districts and could become the focus of teaching and learning, then all of the components of the education system listed above would align to make it so. This is the very basis of meeting the standard- it is impossible to improve student achievement without the entire system working towards these common goals.

More important, however, were the social implications of the standards movement. Setting a universal standard for all students meant that students would no longer be compared to each other and measurements of success or failure would no longer be amorphous. Student work would be compared to a common standard that was understood and could be worked towards systematically. There was a complete change in thinking about student achievement- that all students could learn to the same standards given the right amount of time and resources. No student was to be left behind.

This is not to say that there is agreement that standards-based reform is an effective means by which to achieve education reform. Critics of standards take issue with calibrating American student performance with the performance standards of students in other countries, with standards that are only superficially about content and student learning, but more basically about test score results, and with setting universal standards that fail to take into account students’ socio-economic differences and community issues.

Many critics of the standards movement question the need for American student achievement levels to be compared to those of students from other countries, even given a more competitive global marketplace. They question what is often seen to be paranoia, rather than concern about student learning, that generates a need to create a standard and subsequent achievement scores that meet, or more importantly beat, the test

---

13 Ibid., page 95.
scores of students like the Japanese. There is a belief that this type of comparison ignores children altogether.14

In this same light, there is some skepticism as to whether or not students really need to learn all of the material included in standards in order to function in the modern economy. One of the major criticisms by educators is that standards may simply add to an already exhaustive list of topics for students to learn, and will only continue to burden students and teachers with fulfilling a checklist of items that must be covered over the course of the year. To make matters worse, the standards that must be met are independent of teacher strengths and student interests. Subsequently, standards come to be validated once there is proof that the topic has been covered in the classroom, through test scores. In an environment where numerous topics must be covered in order to show “knowledge” on an assessment, the standards appear to have little to do with encouraging good student mastery of content.

In addition, standards critics take issue with setting the same performance hurdles for all students independent of some discussion about internal and external resources for children. There is a belief that it is impossible to have a universal standard for achievement that fits all children given differences in non-school issues that affect a large proportion of students and subsequently affect their performance. These include poverty, crime, limited parental involvement, poor health, etc. Without a discussion of these elements in conjunction with setting standards, it is believed that students and teachers are set up for failure. A less-acknowledged variation on this theme is the concern that the standards set for children are not attainable by all. There is a belief that some children, no matter the level of time and resources put into the effort, will be unable to meet the standard, and in forcing them to do so, we are penalizing children unnecessarily.15

Criticisms aside, the standards movement began in the United States in the 1980’s as a national movement that attempted to assemble representatives and stakeholders in the disciplines of all areas of school curriculum to come to a consensus about what American students needed to learn in order to be successful. The first organization that crafted a set of student standards was the National Council of Teachers of Mathematics (NCTM).16 Their mathematics standards were gradually adopted by various states and school districts, and textbook publishing houses and major testing programs proclaimed that they were aligning their materials to better meet the NCTM standards. Recognizing that the standards movement was a potentially viable means by which to fuel education reform, the Department of Education created grants to professional associations and other organizations to create standards for the remaining academic disciplines and to stimulate the movement. This has led to districts and states all creating individual standards, with the nation no closer to developing a single vision of education. In addition, the creation of standards has become bogged down by misunderstandings of the value and effectiveness of standards, ideological conflicts over subjects to be included in the movement, and political wrangling where policy makers are more interested in political office than in education reform.

Many other people believe that much of the confusion and difficulty surrounding standards is simply the result of attempting to do something in education that has not been done before. The results, improved student performance and greater evidence of learning, will convince the public that this is a risk worth taking.

The standards movement in Massachusetts grew out of a long-standing desire in the Commonwealth to improve the state of public education and to shrink the education achievement gap for students across all socio-economic groups. There was a recognition that the majority of Massachusetts public school students had not learned adequate skills at the time of high school graduation and were ill-prepared for higher

education and employment. The need for education reform on the whole and standards in particular were described by the Department of Education as:

"First, the process of developing standards itself is important because it provides an opportunity for all constituencies to come together to discuss and agree on what our common expectations should be... The second reason why these standards are important is because, once completed, they will provide agreed upon goals to coordinate state and local programs... The final reason why these standards are important, is that they will form the base for a statewide system of accountability."

The creation of Massachusetts statewide standards allowed a number of different groups including business leaders, educators, researchers, and parents, to gather together to make decisions about the critical skills that students need in order to succeed. These standards were to provide the foundation for all teaching and learning in every public school classroom in the Commonwealth, and would drive instructional improvements and hopefully would be reflected in improved student performance. And finally, given standards that are clearly outlined and agreed upon, it is easier to develop accountability measures to ensure that targets are being met.

**What is an Educational Standard?**

Educational standards are broken down into numerous “types”, but perhaps the most clear typology of standards has been described by Diane Ravitch. Ravitch describes standards as being part of three interrelated categories: content (a.k.a., curriculum) standards, performance standards, and opportunity-to-learn standards.

Content standards are those that describe what teachers are supposed to teach and what children are expected to learn. The Massachusetts Curriculum Frameworks are examples of content standards. Content standards typically outline learning goals for students by subject area and grade. In addition, content standards often include examples of books that teachers can use for instruction, examples of experiments that demonstrate the concept, or lists of historic figures or famous authors that students should be familiar with.

Performance standards are standards that define level of mastery of a subject or concept and that define levels of attainment. The MCAS test sets up performance standards that interact with the Curriculum Frameworks, and create a measurement against which student mastery of the frameworks is matched. In the case of the MCAS, students are given scores that fall in to one of four categories that denote level of mastery for a subject. The categories are Advanced, Proficient, Needs Improvement and Failing. Scores that are above Failing are awarded to students who meet the performance standard as dictated by the state. These are considered to be “passing” grades. Comprehensive and effective performance standards also include examples of student work against which teachers and students can measure progress and compliance with the standard. These examples of work serve as performance measures and allow for continual monitoring of progress.

Opportunity-to-learn standards are those that outline the external or administrative factors that must be in place in order for students to meet the content and performance standards. These are standards that define the type and amount of resources that schools and districts need to be able to effectively and successfully implement standards. Opportunity-to-learn standards in Massachusetts have been roughly established in the Education Reform Act which includes sections that boost state education spending, provide for professional

---

development, reduce the size of classes, etc. These items address resource issues and serve to assist the promotion of the Curriculum Frameworks and the MCAS.

These three types of educational standards were established by the Reform Act and are currently the basis by which education reform in Massachusetts is being implemented and the measure by which both teachers and students are being held accountable for teaching and learning.

Implementation
Implementing standards-based education reform is extremely complex and cannot be easily broken down into manageable pieces to assist in the analysis of pinpointing exact causes and effects. Successful manifestations of standards-based education reform have proven to be very involved, with a number of large changes that are inextricably linked and occurring simultaneously. Successful implementations of reform policies have typically been site or location-specific, and have been much-influenced by local politics, social pressures, labor policies and strong internal leadership. As a result, compiling a list of "best practices" has proven to be difficult if not impossible, and it is too soon to say if the guidelines created by the Reform Act have allowed both the framework and flexibility for districts to be successful.

While there are no hard and fast guidelines for structural, program and resource measures that must be in place in order for standards and their associated accountability measures to be successful, there are education researchers who have identified certain wishlists of items that must be in place in order for standards reform theory to be successful. According to Paul Hill and Mary Celio in the book, Fixing Urban Schools, supporters of standards make certain assumptions that affect the ultimate efficacy of the reform theory. Their assumptions fall into the Zone of Wishful Thinking and include:

- State and local officials will release schools from regulatory restraints that impede school-level innovation and problem-solving;
- Teachers’ and other unions will drop or renegotiate contracts that prevent response to new standards;
- Teachers and others who participate in standards-creating processes will be able to constrain others who advocate for individual disciplines from establishing requirements that are counter-productive and, in the aggregate, exceeding the school’s capabilities;
- Assistance providers will arise to help teachers to learn how to meet standards that few existing schools now meet;
- Schools will find ways to blend the separate standards constructed for each discipline into a coherent overall instruction program; and,
- Schools and teachers whose students fall far below standards will strive to meet them rather than defining them as unrealistic and therefore irrelevant.19

All of these items are not things that can be controlled or mandated by state-initiated standards-based reform efforts, rather, they are things that lie at the whim of external groups that may or may not be supportive of the reform theory. In many cases, states or districts that understand the extent of these limitations and the enormity of the task, call for a more extensive and involved systemic reform that requires states to assist in aligning the entire public education system to reinforce standards, including curriculum and instruction, standards, professional development, parent involvement, assessment, teacher hiring requirements, and the like. However, according to Hill and Celio:

"... systemic reform assumes away the very natural phenomena that must be overcome: state legislatures are inherently fractious and inconsistent, educators and parents cannot all be persuaded that there is a single all-important

set of facts and skills that all students must master, and employers and higher education institutions
cannot cease their standards in response to developments in the economy, technology, arts and sciences.
Rather than eliminating standards' zone of wishful thinking, systemic reform multiplies the number and,
complexity of events that must occur but that the reform proposal itself cannot cause.  

Unfortunately, even if systemic reform in theory compounds the complexity of standards implementation, it
is critical in reinforcing the standards movement. Implementation of standards, by its very nature, requires
the support of a number of different players in schools and in communities. While the Commonwealth of
Massachusetts may have been successful thus far in creating and establishing state standards, the districts
have been left with the much more difficult task of implementation and alignment. Districts must figure out
how to deal with conflicting local interest groups, parent and teacher opposition, and little technical
assistance and funding.

In addition, while districts must navigate the maze of coordination and collaboration with various players to
make reform happen, they must also redesign, initiate and implement new programs intended to improve
instruction and improvement. Without the benefit of good examples of standards-based reform
implementations that work, districts may be left to take the 'shotgun' approach, where they throw a number
of programs together with the hope that one will hit and be successful. Unfortunately, the application of
numerous initiatives tends to disperse the impact of reform, spread both financial and human resources too
thinly and result in less apparent positive results. Frederick Hess' report on Policy Churn and the Plight of Urban
School Reform outlines the problem in detail; that hyperactive reform agendas, identified by the number of new
reform programs or initiatives, were less successful in reform implementation. More importantly, that
"school reform is a political process, driven by short-term incentives that emphasize policy initiation, rather
than implementation".

Given this background, this makes the task of Massachusetts districts all the more perilous. Without strong
implementation guidelines and with the possibility of creating more education initiatives that detract, rather
than contribute to the effort, districts have their work cut out for them as to how to proceed.

---

20Ibid.
21Hess, Frederick, Initiation Without Implementation: Policy Churn and the Plight of Urban School Reform, Conference on
22Ibid.
Chapter 3: Methodology

District Selection
To get a snapshot of how Massachusetts districts were beginning to address the implementation of standards-based reform, it made sense to do an informal survey or assessment of progress to date. School districts included in this study were selected based on a two-part process.

Districts were initially restricted to those that were members of the Coalition for Higher Standards, a division of Mass Insight Education, a non-profit entity supporting the implementation of the 1993 Education Reform Act. The Coalition was founded in 1997, and its 18 school districts and two regional alliances are representative of urban and suburban districts statewide that support the standards movement and that understand and support the Reform Act. The Coalition builds local support for higher academic standards and creates model school leadership training programs for using state standards and tests to improve student achievement. Coalition members were recruited and invited to work with Mass Insight Education based on their district leaderships’ commitment to standards-based reform and accountability. Only districts that were known to support the reform effort were invited to join. As additional districts learn more about Mass Insight and the collaborative and express interest in joining the group, these potential members are informally screened for ideological compatibility (i.e., do they believe and support standards and high-stakes testing) and are voted into membership by the collaborative as a whole. Restrictions on membership are the result of limited administrative and funding capacity on the part of Mass Insight. In an effort to accommodate more districts, Mass Insight Education is investigating additional sources of grant funds and is attempting to hire additional administrative staff.

Mass Insight Education serves three functions as a player in the reform movement:

First, Mass Insight provides policy suggestions and advocacy as a liaison between the Coalition and the Department of Education (DOE). Administrators interviewed for this project were extremely pleased with the level of influence that Mass Insight has had with the State and with the DOE in making policy changes that better fit implementation at the district and school level. It is believed that this level of influence is the result of the DOE’s understanding that the Coalition is made up of the Reform Act’s most ardent supporters and that their suggestions are only to improve implementation rather than to undermine or impede the process.

Second, Mass Insight serves as a communications arm of the DOE, generating and disseminating information on standards-based reform and the MCAS to the public in an effort to provide better information and to rally support. Mass Insight publications include narratives that explain the content and importance of standards, sample MCAS test questions and actual student responses and their grades.

And finally, Mass Insight provides professional development services and technical assistance to districts in the collaborative. These services are designed to help member districts to develop more effective administrative leadership, to understand the use of data to inform instructional improvement, and to help to align curriculum with the standards.

The Coalition for Higher Standards districts made up the short list because they were easier to gain access to and provided a good cross-section of districts from which to choose. There was some concern that the Coalition districts were already a “self-selected” group of districts who were interested in supporting Massachusetts standards-based reform and as a result, may not be truly representative of how the average

---

23The Coalition for Higher Standards, Mass Insight Education, website: www.massinsight.com
24Interview with Kerry Callahan, Mass Insight Education, April 18, 2000.
Massachusetts school district was responding to MCAS testing as a measure of compliance with the new state standards. However, the purpose of this thesis is to inform the reader as to how districts and then schools are responding to the challenges of high-stakes testing and education reform in Massachusetts.

The second phase of selecting districts for study was to divide the Coalition districts into categories that best described their size and demographic condition, in order to see if there were differences in the approach to reform based on both internal and external resource issues. Mass Insight Education assisted in dividing the Coalition districts into categories based on the sizes and types of communities they represented. The categories were restricted to large urban, medium urban, small rural and affluent suburb.

Large districts were those with student enrollments in excess of 15,000 students and with at least 25 schools. Medium-sized districts were those with enrollments ranging from 15,000 - 40,000 students, and with at least 7 schools.

Additional input was received by the staff of Mass Insight Education on the length of time that districts had been implementing new programs and practices, as well as the program and organizational histories of districts involved in the coalition. Additional accounts of district progress would be gathered as available, either from conferences or from informal interviews, to inform the process of selection.

Ultimately, the districts of Woburn, Springfield and Greenfield were selected as a good mix of sizes and types of communities. Woburn was a small, but still urban district with a long history of reform implementation and whose student performance had consistently surprised researchers given the city’s demographic make-up. Springfield was a much larger urban district with a history of substantial urban problems that seemed to interfere with the progress of education reform. And Greenfield was an extremely small district that had the potential to be both blessed and cursed by its small size. Resource issues could hinder reform, while the small numbers of both schools and students could ensure more streamlined implementation of policy to each classroom.

**Interview Questions**

Questions were developed as the project progressed. Initial questions were more general in nature and revolved around the more macro issues of the Education Reform Act and school and district governance issues. Questions included:

- At what level are decisions about new program implementation and administrative or managerial decisions made?
- How much leeway do individual districts/schools have to make changes in their services delivery systems?
- Are these new freedoms/restrictions implemented as a result of the Education Reform Act?

These questions were designed to establish a framework for understanding school and district approaches to implementing standards-based reform in the context of new systems of control and governance. In addition, these initial questions helped to flesh out what were tasks and benchmarks required by the Reform Act, and to identify goals established by individual districts. These interviews were conducted with Professor Robert Schwartz at the Harvard Graduate School of Education and Professor Irwin Blumer at Boston College’s Department of Education. This information, in conjunction with questions and topics introduced by Mass Insight Education were used to inform secondary questions.

Secondary questions were those that were used in the first round of interviews with district superintendents and administrators. Examples of these included:

- How have your district operations changed since the Education Reform Act was initiated?
◊ Are there new programs that you have implemented? Have you changed your practices?
◊ How does your district and your individual schools use MCAS test score results?

These were introductory, exploratory questions aimed at gathering information about the key elements or foci that individual districts were taking in their approach to implementing standards-based reform. These questions were designed to allow interview subjects to discuss the most important components of their reform implementation and to discuss process, governance, and challenges to implementation. Based on this group's response to the inquiries, a tertiary level of questions was crafted to be used to verify and clarify information, as well as to investigate how well information about process and implementation was being transferred to the more local levels.

The tertiary questions were asked of principals, lead teachers, curriculum coordinators and professional development coordinators. Examples of these questions:

◊ How do your teachers use test score data to inform instructional practice?
◊ Do all teachers participate in professional development? How do teachers that cannot attend training sessions become familiar with new teaching techniques (information transfer)?
◊ Are teachers/staff members supportive of the district/state reform effort?

These types of questions were much more detail-oriented and probing. The type of information that these questions attempted to get at were the real implementation challenges and successes in the classroom and how district and state reforms had changed instructional practice.

Results of interviews were then discussed and reviewed with Mass Insight Education to clarify the researcher's understanding of each district's programs and statements concerning the success or failure of implementation. Mass Insight Education was asked also to give their opinions as to the strengths and weaknesses of each district and their approach to reform implementation.
Chapter 4: Woburn Public Schools

A Jump Start on Standards-Based Reform

The City of Woburn lies in the Greater Boston Area, just 10 miles north of the City of Boston at the junction of Routes 128, 93, 3 and 38. It has a total population of 37,070 residents, the majority of whom are employed in the manufacturing and service sectors. Unemployment in Woburn has been dropping steadily since its high in 1991 (8.9%), and was reported to be 2.6% in 1999. The city’s unemployment rate is consistently lower than that of the state.

Woburn was originally a manufacturing center filled with numerous companies in the leather and shoe-making industries. Its location on the Mystic River and the creation of the Middlesex Canal between Boston and the Atlantic Ocean in the early 19th century boosted the city’s importance in the tanning industry and created numerous jobs, attracting immigrants from Nova Scotia, Ireland and Canada. Tanning and currying leather required a multitude of chemicals and led to the development of a number of chemical manufacturing companies along the river. These companies would eventually become the focus of a now-famous class action lawsuit that was documented in Jonathan Harr’s book and subsequent Hollywood movie, A Civil Action. Many of these companies, including W.R. Grace & Co. and Beatrice Foods, still remain in Woburn and continue to be large employers.

The manufacturing focus of the city has changed however, and the majority of Woburn’s residents are employed in health and business services, education, retail trade and construction. Changes in the focus of the regional economy have generated new jobs in the fields of computer hardware, software and biotech, with a number of small firms employing residents in research and development and small-scale manufacturing. According to data gathered in the 1990 U.S. Census, 20% of residents work in Woburn itself, while 70% of residents are employed in the surrounding metropolitan statistical area. The city has retained its original racial makeup and based on census statistics, 97% of the population is Caucasian, 1.2% Asian and Pacific Islander, 0.9% African-American, 0.19 Native American, and 0.69% Other. The level of educational attainment for most (36%) Woburn residents is a high school diploma, with approximately 17% of residents with some college education, and 16.5% of residents with a Bachelor’s degree. More interestingly, is that Woburn residents tend to be long-term residents, with 63% of individuals polled in 1990 living in the same house as in 1985.

The Woburn Public Schools’ student population of approximately 4,700 closely resembles the racial and ethnic make-up of the city. According to Massachusetts Department of Education data, the student body is 89.7% Caucasian, 2.1% African-American, 3% Asian and 4.7% Hispanic. 16.2% of Woburn students have been identified as Special Education students, while 1.3% of students are categorized as limited English proficient and 15.9% are eligible for reduced or free lunches. The district’s elementary school students have performed extremely well on the MCAS in the two years that the test was administered, with figures for students failing the exam consistently lower than that of the state across all subject areas (see Figure 3). More importantly, Woburn has continued to have high percentages of students in the Advanced and Proficient categories across all grades and subject areas.

Woburn has been cited as one of the most successful districts in implementing education reform, and has been mentioned in most reform evaluation studies as consistently ahead in implementing standards-based

25 Massachusetts Department of Revenue, Division of Local Services Municipal Data Bank.
26 Commonwealth of Massachusetts Department of Employment and Training website.
27 Department of Neighborhood Development and the Massachusetts Historical Committee.
28 All statistics used are courtesy of 1990 U.S. Census data.
29 Massachusetts Department of Education.
reform. More importantly, is that Woburn is not considered to be an “advantaged” district with higher than average household incomes, or extremely educated parents. In fact, it is considered to have a number of demographic disadvantages given community characteristics like an average median income of $42,620 and 4.7% of families with a single female head of household. Most researchers agree that the success of education reform is not always linked to good policy, it is also affected by external, non-school factors that create powerful forces that can shape efforts in the classroom. Dr. Robert Gaudet, a researcher at the University of Massachusetts, Boston, completed two studies of school district effectiveness in Massachusetts evaluating 1998 and 1999 MCAS test scores in relation to school district demography. His study used a regression that outlined the relationship between student performance outcomes and specified demographic characteristics. The Effectiveness Index (EI), as it was called, was derived by comparing actual MCAS test scores to predicted test scores calculated by a model using six demographic indicators: average education level, average income, single-parent status, language spoken, poverty rate, percentage of school-age children enrolled in private schools. In both the 1998 and 1999 studies, Woburn students have outperformed expectations given the demographic conditions of their community. The following narrative provides some insights as to why Woburn has managed to be so successful.

Woburn is considered to be a relatively small district with a total of 4,700 students and 12 schools. Its central office staff is rather lean, with one individual, the assistant superintendent, as the person charged with administering education reform. At the school level, individual principals act as instructional leaders who are assisted in the development and implementation of curriculum that fit the state and district standards by department heads who specialize in subject content. The department heads are then responsible for disseminating information about curriculum and content to individual teachers either by grade (K-5) or by subject (6-12). The district does not have formalized curriculum coordinators.

The district office’s relationship with the teacher’s union is reported to be strong and stable. The Assistant Superintendent reported that she had a close relationship with the union representative and implied that this may facilitate relations. This may be the result of the large percentage of current Woburn teachers who are graduates of the local school system, and the number of critical administrators in the central office who are former local teachers.

The general feeling in the local education community is that Woburn is a proactive and progressive district when it comes to education reform. The district office seems to try to be out in front of most reform efforts, and to deliver information to principals and teachers as quickly as possible. District officials were quite familiar with standards-based reform prior to the Reform Act, and had participated in some of the planning efforts round the New Standards Project in the early 1990’s. In addition, the district had reviewed good examples of NCTM and NCTE standards early, and had delivered drafts to teachers and principals for review.

Woburn began its own reform effort early when the district office noted poor student performance on the Massachusetts Education Assessment Program (MEAP) test, the statewide assessment tool used by schools prior to the MCAS. Similar to the MCAS, the MEAP was a test that included both multiple choice and open-

30All statistics used are courtesy of 1990 U.S. Census data.
32Woburn Public Schools has a total of 12 schools; 9 elementary, 2 middle schools and 1 high school. The district is currently working on programming and planning a second high school to accommodate growing student population.
33The New Standards Project was a consortium of states and major school districts that joined together to produce a system of examinations and assessments based on a shared set of high achievement standards. Standards and assessments were to be aimed at what had come to be called thinking curriculum, an instructional program that would teach children to use knowledge and to reason and solve problems.
ended questions, and covered the subject areas of reading, mathematics, science and social studies. Unlike the MCAS, the MEAP was administered to students every two years, did not provide individual student performance data, and was not linked to accountability measures.

The Woburn district tends to be more of a proactive district. As early as 1993, in anticipation of the accountability measures associated with the Reform Act, Woburn was using MEAP data to make adjustments to teaching and learning practices. The district felt confident that although MEAP scores were consistently low, both teachers and students were capable of doing better. They also believed that the test scores were the result of poor test presentation more than student performance. The Assistant Superintendent, Louise Nolan, worked with administrators and teachers to identify and isolate items on the MEAP that students were consistently misunderstanding.

Open-ended questions, or essay questions, proved to be the most obvious area of student under-performance. The district office decided that a strategic, full-scale approach to improving student performance on open-ended test questions was necessary. Writing organizers were developed for use across all grade levels to help students to better understand how to read essay questions and how to organize their thoughts in order to deliver solid written responses. The organizers included a series of exercises designed to help students think about the organization of arguments and supporting statements. These writing organizers included brainstorming exercises, Venn diagrams, helpful hints, and sample questions. Nolan traveled to all of the schools to present the organizers and to provide direct technical assistance and training in their use. In addition, the organizers included test-taking hints and strategies designed to help students to develop patterns and habits of good test-taking skills.

To monitor student progress and instructors’ use of the organizers, Nolan’s office developed a series of practice response questions for students to use. Students were then given a choice of questions to answer, were reminded to use their writing organizers, and were asked to submit a first draft and then a final draft of their response to the question. The questions were gathered at the district office, and teachers were invited to take part in the development of rubrics for grading and the assignment of grades for the practice test. In the first round of using practice questions, on a scale of one to four, with the score of four being an Advanced response, the majority of student responses were considered to be twos, or Needs Improvement. Nolan’s office discussed the results with teachers and found that there was some student confusion as to how serious the practice questions were, and that not all classes were regularly using the writing organizers. Nolan returned to schools that seemed to be having difficulty using the organizers to provide additional assistance and in subsequent rounds of practice exams, student scores improved substantially and more teachers were involved in scoring student responses.

The use of organizers has proven to be helpful in light of current MCAS testing. According to the district, students in Woburn are no longer intimidated by open-ended questions and after their experiences with district-initiated practice questions, are better able to understand the basis by which responses are scored. Students in all grades are reported to refer to their responses by score; there is an understanding of what it means to have a response that is a three verses a four. Students are able to make conscious decisions about doing that extra bit in order to have a three instead of a two, and there is a clearer relationship between student-generated products and outcomes.

While improvements in the area of open-ended questions were helpful in the final years of using the MEAP and have been critical to Woburn students’ strong scores on the MCAS, open-ended questions are simply one form of assessment to verify competency in the new standards outlined by the Curriculum Frameworks. The standards themselves still must be met.

34Interview with Assistant Superintendent Louise Nolan, Woburn Public Schools, April 6, 2000.
Woburn has developed a number of ways in which to ensure that the curriculum in the classroom is aligned with the state standards, and that all teachers receive assistance in understanding the standards and in ways to incorporate them into instruction. The district has organized teachers in groups by subject area across all grades and all schools to divide up the standards and to make sure that all topics are assigned and that teachers across all grades understand what is being taught at the grades above and what children are expected to learn at the grades below. This was completed for the English/Language Arts, Mathematics, and Science and Technology standards, and most recently, for History and Social Studies. These teachers work with librarians to make sure that there are adequate resources available for students in the libraries, and that the standards can be properly matched with textbooks.

For teachers who need additional assistance in aligning classroom activities with the standards, the district has created instructional aids. One example is the science notebook that includes ten experiments, one for each month of the school year. It has detailed instructions as to how to teach the science unit, what the outcomes should be, and how it relates to the standard. These notebooks exist for all grades. Should this still not be enough assistance, Nolan's office provides direct technical assistance, either through connecting teachers with more senior teachers, or through hands-on training by Nolan.

To verify that the standards were being taught in the classroom, the district developed a workbook in 1997 called, "Tracking the Standards," which numbered each of the standards by grade and subject area. "Tracking the Standards" was issued to all teachers, who were required to check off the boxes that related to their areas of instruction, to give principals and administrators a better understanding of whether or not all standards were being met, and what areas teachers needed more assistance or training. In 1998, the district issued "Tracking the Standards II," an updated version of the first workbook. With this second version, teachers were required to check off their standards and meet with their principal twice a month to discuss difficulties and progress.

To help teachers to share information about better teaching methods and exercises to use to teach the standards, the district hosts summer brainstorming workshops where teachers participate in working groups to identify new teaching activities specific to individual standards. In addition, the district hosts “backwards curriculum mapping” workshops where teachers volunteer to participate in a summer session where classroom activities are identified and linked backwards to given standards. All of these workshops are voluntary and paid by the district. Teachers are invited to participate and the district makes financial arrangements for all volunteers to be able to attend. Teacher response has been so enthusiastic that the district has been forced to reduce the number of hours that each teacher can commit to the activity in order for all volunteers to be able to participate.

In addition, the district provides a number of professional development opportunities for teachers and administrators through direct teaching and training and using the services provided by Mass Insight Education. The district regularly offers courses related to teacher recertification as well as additional courses specific to standards-based reform. Teachers and administrators, including Nolan, volunteer to teach courses while other, more technical coursework is out-sourced to consultants and content specialists. Past course offerings have been focused on themes, such as literature or history, or organizations such as the Boston College or Boston University. In the case of B.U. and B.C., professors and researchers from these universities were invited to teach mini-courses on their topics of interest. Courses have included examinations of works by Jane Austen and Emily Dickinson, and allowed teachers to be exposed to different perspectives on literature classics that are used in the classroom everyday. It was presumed that teachers would take these ideas back to the classroom and use them to improve or inform instruction.

In addition, all principals from Woburn schools were sent to Mass Insight Education’s workshop on reading MCAS data in 1998. These principals then returned to Woburn and instructed their teachers in using test data to inform improvements in instruction. As a result, all teachers have been trained in “test whiz”
software to assist them in examining their students' test scores. In addition, the use of test score data was implemented immediately following the 1998 MCAS. All Woburn fourth grade teachers were required to meet with their principals to review their students' test scores and to see where there were areas for instructional improvement.

In the fall of 1999, all department chairs were sent to Mass Insight's workshops on leadership and creating standards-based classrooms. In the summer of 2000, these workshop participants will gather to discuss what they learned and to develop strategies for disseminating the information to all classrooms.

Woburn has also been active in educating parents in standards-based reform. The district hosts workshops for parents that are inclusive of all subject areas to discuss what their children will be learning and how this relates to standards and the MCAS. For the past three years, the district has been funding Curriculum Nights at all schools, where parents and students for grades K-5 are given their own night to participate in educational activities that relate to the new standards. For example, all third graders and their parents are invited to attend Mystery Night. At the event, parents and students participate in 7-10 activities related to various curriculum standards that culminate in the resolution of a mystery. At the end of the activity there are prizes and snacks. Parents have an opportunity to meet teachers and administrators and to see what their children are learning in school. Parent response has been extremely positive, with approximately 40-60 parents attending each event.

For students who need additional assistance to meet the new standards, Woburn has developed and is expanding its summer remedial education programs. Currently, all students have required summer reading where they read independently and come in to school once a week over the break to discuss their readings. The district is currently organizing the reading lists and is making arrangements to purchase books for students so that all children have access to resources. Starting this summer, students who need additional help in order to perform at grade level, will participate in a "jump start" program, and will attend school at the end of summer for four weeks just prior to the beginning of the fall semester. Woburn had attempted the summer program in past years just after the spring term, and found that student enthusiasm was low. The district felt that students would get more out of the program if it occurred just before the fall semester.

Independent of the Reform Act and the standards movement, Woburn already had a culture of high achievement for its students. Woburn has strict high school graduation requirements as part of the Woburn Expects Excellence in Education or, WEE3 program. All graduating seniors are expected to have completed above and beyond the state-mandated coursework in order to be promoted.3 6 This is critical to the district because it prides itself in delivering a quality, liberal arts education to all students, to ensure student success in immediate employment or higher education.

While Woburn is doing a great deal to implement standards-based reform, and is seeing great improvements in fourth grade test scores, student performance on the MCAS, particularly in the tenth grade is still low. The percentage of students receiving Failing scores in 1999 were, 24% in English/Language Arts, 45% in Mathematics, and 28% in Science and Technology. If the test scores from 1999 tenth graders are any indication of the test scores to be expected of the class of 2003, it is apparent that there are large numbers of students who will not be promoted given the current graduation requirements.

While Woburn administrators believe that it will be possible to continue to improve test scores for all grades, and to slightly shrink the number of students failing the MCAS, there is a concern that no matter what types of programmatic or instructional changes are made, there will always be a percentage of students that fail to

36 The WEE3 program requires that all graduating high school seniors have taken a minimum of 2 years of Business, 2 years of Art or Music, 3 years of Foreign Language, 4 years of Math, 4 years of English, and 4 years of Science. Interview with Assistant Superintendent Louise Nolan, Woburn Public Schools, April 6, 2000.
perform because they simply do not care about tests and promotion. These students have external issues that prevent them from focusing on school, have parents that cannot or will not help, and who are unable to be engaged in any of the normal functions and activities of school. In fact, the principal of Woburn High School, Bob Norton, predicted the same students who were failing the MCAS at the tenth grade level, will be the same students who do not graduate- not for lack of instructional support, or for lack of resources, but because these are students who just don’t care.\textsuperscript{37} The district has attempted to connect students and families to local social services and have taken extra efforts to try to get these students involved in school-related activities, but to no avail. It was suggested by Norton that this group of students in the future may migrate or be referred out to institutions like local community colleges for GEDs and subsequent Associate Degrees. He postulated that institutions like Middlesex Community College were better prepared to deal with these types of students; those that are not engaged in regular classes and can’t be bothered with high-stakes testing. He felt that this would be the default or safety valve for the both schools and states- rather than not graduating these types of students, repeated failing of the MCAS would force students into alternate means of receiving a high school equivalency degrees and would still allow them an entrance into higher education.\textsuperscript{38}

Just as important as the question of how to deal with students who cannot pass the MCAS, is Woburn’s commitment to boosting and maintaining student performance across the board, particularly at the upper end of the spectrum. The district is concerned that the allocation of attention and resources to students is equitable; that the students who are under-achieving do not receive a disproportionate level of assistance to the detriment of students who are not considered to be at academic risk. Assistant Superintendent Nolan stressed the importance of encouraging students who were considered to be \textit{Advanced} to remain \textit{Advanced}, and students who were \textit{Proficient} to move up to \textit{Advanced}. The day before the April MCAS tests were administered, Norton was engaged in a student pep rally to encourage students to use their writing organizers, to remember their test-taking tricks, and to remember to take the test seriously. He also promised students that if they beat the 1999 Wobum test scores and ranked higher in the state, that they would receive a reward.

According to individuals interviewed for this study, Woburn does not see itself as a district that “teaches to the test”. Devices like writing organizers and test-taking hints are viewed as instruments that develop good problem-solving skills and solid foundations for future learning and assessment. District administrators felt that they had put a lot of effort into preparing lessons that integrated the new state standards into everyday teaching and learning, and that tests like the MCAS in fact would only confirm what was already being taught in the classroom. District staff reported that there was little extra time that was devoted exclusively to preparation for and administration of the exam and that most teachers had come to accept that the test was something that was being demanded by the state. Any personal or ideological issues that teachers may have had with the significance of the test were sidelined in exchange for wanting students to succeed. And success for students was measured by passing the test. However, Woburn test scores for eighth and tenth graders are still falling heavily in the category of failing. More importantly, if the MCAS test scores across all grade levels and subject areas are not seeing significant change, does this in fact mean that students are not learning the new standards and are not improving performance?

In addition, the definition of “teaching to the test” is fuzzy. Traditionally, schools that taught to the test practiced the “drill and kill” method of teaching. Students would be prepared for tests through a series of memorization exercises that emphasized remembering the correct answers rather than learning and synthesizing information in order to develop correct responses. The process of drilling students would continue until they remembered, or killed, the correct answer. While Woburn does not practice the drill and kill method by definition, Woburn students are being taught specific test-taking techniques that do not

\textsuperscript{37}Interview with Principal Bob Norton, Woburn High School, Woburn Public Schools, April 11, 2000.
\textsuperscript{38}Ibid.
necessarily relate to everyday classroom learning and are specifically geared towards preparing for MCAS and other standardized tests. Test taking skills include:

- In multiple choice questions, read all of the choices before selecting an answer.
- Try to rule out answers that are obviously incorrect. Part of speech, number, tense and subject can be good clues. After ruling out some answers, select from the remaining.
- After reading a math problem make a note of the process you will use. Estimate the answer.
- Compute carefully. Check your computation. Use a calculator.
- Visualize yourself doing well on the test and feeling confident. See yourself handling difficult questions calmly. See yourself doing your best and feeling good about the test.

An argument can be made that these are skills that all students should know in order to improve reading comprehension and to provide a general framework for all future assessments. However, this seems to provide more evidence that Woburn is in fact teaching to the test in an alternate definition of the phrase. Woburn students are said to be conscious of rubrics used to grade their responses to answers to classroom assignments and to sample test questions. They understand differences in grading and are reported to ask in class if they need to know certain materials for the MCAS. While this is not necessarily harmful to students, it does raise some questions about the nature of teaching and learning in the classroom. Knowing benchmarks and the standards by which student work is measured provides meaning to students as they learn and absorb material in the classroom. However, learning in the classroom that is heavily driven by its significance to a standardized test seems no different than drill and kill.

Woburn's strategies of focused attacks on specific areas of study, extensive attention to professional and staff development, high district academic standards, parent involvement, and data-driven change appear to be constantly improving student performance across the lower grades in particular. Critical issues still exist at the upper grades, as noted by both Nolan and Norton, but the district appears to be attempting to address some of these problems through the provision of social services where necessary, and more attention to the needs of older students. However, Wobum's early reform start has clearly helped them to move forward in changing the culture of its schools to be results-driven, and has assisted in the internalization of reform strategies by both staff and students.
Chapter 5: Springfield Public Schools

Large District, Urban Problems

Springfield, Massachusetts lies in western Massachusetts in Hampden County at the junctions of U.S. Route 5, Interstate 291 and Interstate 91. It is a large industrial center in the Pioneer Valley that was originally settled in the 17th century as a private plantation of the Massachusetts Bay Colony by William Pynchon. Its location in the valley and along the Connecticut River, made Springfield a center of commercial trade and light manufacturing from the very start. Local fur trade between settlers and Indians required warehousing services in the mid 1600's, and allowed for a boom in population. In 1675, Indian raids on the Springfield destroyed the majority of built structures, but resulted in the subsequent building of the U.S. Armory, which for the next two centuries would remain the U.S. Army’s main facility for small arms design and production. Other local industries were textile and paper mills, to be followed by ironworks as Springfield became a major railroad transportation hub in the mid-1800's.

Springfield was particularly prosperous during the Civil War, with employment booming in order to meet the Union Army's demand for uniforms, ammunition and weapons. Following the destruction of the U.S. Army's armory at Harper's Ferry, it is reported that employment at the Springfield Armory boomed from 200 workers to 2,600.

Following the war, the focus of manufacturing industries changed to the production of luxury items like automobiles, ice skates, jewelry, and motorcycles. This type of manufacturing activity has continued to this day, with large companies like Westinghouse, Smith and Wesson, Parker Brothers as major employers. In addition, Springfield has diversified its economy and provides a number of jobs in the area of health and business services, and has become a major hub of fiberoptic development and manufacturing.

Springfield is an extremely diverse city with a population of 156,983 persons. According to figures from the Department of Neighborhood Development, the population breakdown was, 69% Caucasian, 19% African-American, .85% Asian, and 11% Hispanic. While the local economy seems to be healthy with a diverse group of employers who require a variety of skill sets, the city remains populated with predominantly lower and moderate income persons with limited educational backgrounds. The median family income in 1989 was $25,656, with 12% of the population having less than a ninth-grade education, 17% with an educational attainment between a ninth and twelfth-grade level, 33% with a high school degree or equivalent, 15% with some college coursework, and 9.5% with an undergraduate degree. The low levels of family income and the relatively low levels of adult education relate directly to issues of student attendance and tenure in Springfield Public Schools. Conversations with Springfield district administrators revealed that one of the critical issues with students was the ability of their parents to remain employed and to remain enrolled in school.

The Springfield Public School district is a K-12 district with 46 schools and a student enrollment of 25,000 students. The student body reflects the demographics of the city in being extremely diverse; students are largely minority students, from low and moderate-income families, often who do not speak English as a primary language. 71.1% of students are eligible for school lunches, 11.5% of students have been identified as limited English proficient, and 17.6% of students have been identified as special education

---

39 The Community Profile, Massachusetts Department of Housing and Community Development website.
40 The Community Profile, Massachusetts Department of Housing and Community Development website.
41 According to information provided by the Massachusetts Department of Education, 30.6% of Springfield Public School students are African-American, 40.8% are Hispanic, and 26.5% Caucasian.
students. These external factors contribute to the challenges that the district faces in attempting to implement standards-based reforms as mandated by the Education Reform Act.

Springfield Public Schools however, seem to be at an advantage over many other districts in the Commonwealth. Springfield has been under the leadership for the past eleven years of a long-time "reformer", Superintendent Dr. Peter Negroni.

Negroni does not have an assistant superintendent and believes that a leaner central administration means that there are more resources available to commit to teaching and learning. While at the beginning of his tenure Negroni had approximately 170 staff people in the central office, at last count he had 30-40 people. These include eight Curriculum Content Coordinators, or Subject Directors, a Professional Development Coordinator and a Director of Research who deals with student test data and reporting. Principals are instructional leaders in the schools and are the main points of contact between the district and the schools.

The district's relationship with the union is said to be strong. Negroni noted that in the last round of contract negotiation, he included a clause in the teaching contract that stated that all Springfield teachers will teach the district curriculum, so that by contract, all teachers were obligated to participate in the process for mastery of curriculum as outlined below.

Negroni is an active proponent of standards-based reform, has had prior experience with implementing standards-based reforms in New York and North Carolina, and was part of the team of Massachusetts education administrators that participated in the drafting of the Reform Act. Prior to 1993, he had attempted to implement a series of reforms that are currently viewed as common interventions in the implementation of standards, but at the time were considered to be unrealistic policies that disrupted, the imperfect, but passable status quo. These included an extended school day and school year, a 7-day professional development program and a broad public engagement program. However, without the pressure of an accountability system to enforce what were considered to be radical attempts to change the system, Negroni's new programs were not as successful as they could have been. There were few incentives for faculty and administrators to adjust to the new programs and procedures, and little connection between changes that were to be made and the potential outcomes of better teaching and improved student performance. According to Negroni, the onset of the Education Reform Act, and in particular, the accountability measures instituted through MCAS, "dramatically influenced our work". More specifically, he stated that, "now I probably was on the way to changing anyway, but the MCAS was really the driving force 'cause I saw the results and said that something has to be done". Negroni felt strongly that the test results that emerged as a result of MCAS in 1998 and 1999 allowed him the ammunition needed to move reform forward and begin to elevate Springfield's students' performance.

Dr. Negroni's initial attempts to understand the scope of problems in Springfield schools in response to the Education Reform Act and accountability measures implemented by MCAS, were stunted by a lack of acceptance by faculty and administrators. His method of assessing the problems and challenges faced by the district was at times viewed as confrontational and uncomfortable, and like all assessment procedures, forced long-time teachers to face the harsh realities of chronically poor student performance, sub-standard expectations, and low staff morale.

Negroni's method of assessment took place over the course of two and a half years and had three different iterations. The first attempt at assessment took place in 1998 in response to the release of the first round of MCAS test results. Negroni visited every school and drafted individual school assessments that outlined the

---

42 Springfield Public Schools, School District Profile, Massachusetts Department of Education website.
43 Interview with Dr. Peter Negroni, Superintendent, Springfield Public Schools, February 25, 2000, page 3.
44 Ibid., page 3.
“inhibitors to doing well on the MCAS”, which he then distributed to the school board and to principals. Negroni himself admits that this first attempt, “did absolutely nothing except to aggravate people and tell people what was wrong”. As a result, he switched to a new tactic; internal audits using central office staff and principals as evaluators. He formed groups of principals and central office staff to evaluate schools and write up performance reports based on rubrics developed by the central office. Unfortunately, this assessment technique failed because principals were hesitant to point out fault in other’s schools.

Negroni’s final assessment began in February 1999, with a new approach that incorporated principals and administrators from the beginning and began to remove the focus from a penalty-based to an improvement-based perception of evaluation. He began working with Lauren Resnick at the Institute for Learning based in Pittsburgh, Pennsylvania. Twelve principals were sent to the institute to learn about the Seven Principles of Learning, a method of evaluating how learning is occurring in classrooms. These principals were referred to as “fellows” and were instructed to return to the district and share the concepts of the Principles of Learning with other principals. In Negroni’s new model, principals became instructional leaders, and were to be constantly looking at teaching and learning in the classrooms of their schools and the schools of their colleagues in the district. In September 1999, Negroni and his new institute fellows began a series of school visits whereby they broke down both MCAS and IOWA test results for principals, and completed walk-throughs of every classroom in an attempt to identify areas of strength and weakness in teaching and learning. Review teams looked for the following things:

- Are the standards made clear to the students?
- Do the students know what good or quality work is?
- Is it in the heads of the kids?
- Is it in the heads of the teachers?
- Do you have models of student work that can be shared amongst teachers?
- Do you have models of student work that can be shared amongst the students?
- Do students judge their own work based on the standards in their head?
- Do they help judge the work of other students?

The intent of these walk-throughs was to see what children were doing in the classrooms, as they looked for evidence of learning. According to Negroni, this approach seemed to remove much of the anxiety from faculty and staff, for they were able to focus on identifying evidence of learning rather than to point out faults specific to teaching. While these issues undoubtedly overlap in the evaluations, the individuals in the walk-throughs had been instructed to look for learning, thereby allowing for the spotlight to be focused on more positive, student-specific activities.

This process of school evaluations occurred in the first 45 days of the school year and the results were telling. They were compiled in a document of findings that outlined what was wrong with the system. Specifically, “that there was enormous capacity in the system, that there was enormous disconnect between the use of data and district goals, a disconnect between administrators and principals, and there was variability and isolation”. However, according to Negroni, the greatest impediment to learning in Springfield schools is the faculty and administrators’ lack of understanding of the district curricula (and hence the state curricula as defined by the Curriculum Frameworks). As a result, Negroni has begun a campaign of professional development that concentrated on making sure that all teachers were familiar with the district and state curricula, not only in their subject and grade of instruction, but across all subjects and grades.

46 Ibid., page 3.
His professional development model involves using principals as instructional leaders who work directly with the district’s eight directors of subject areas in walk-through rotations of schools. They tour each other’s schools and look for strengths and weaknesses in teaching and learning. These lessons are taken back to their individual schools where principals train their teachers to do reviews of all of the classrooms in their grade across subject areas. As in the case of the larger school reviews, teachers are told to look for evidence of teaching and learning in the classroom reviews. These reviews are used to share information across classrooms and to reinforce an understanding of curricula across grades.

The next phase of the process is the development of rubrics and intermediate assessments for principals and teacher to measure the progress of change in the classrooms during these tours. The intermediate assessments were supposed to be similar to the MCAS assessment—“they should tell principals and teachers that which they already know.” This helps to build stronger relationships between schools and communities. Additional outreach activities are developed at the school level; many schools host information sessions at Parent-Teacher Organization meetings to explain standards and to present the MCAS and student results.

Other changes that are happening at the school and classroom levels as a result of the Reform Act, teachers have become very adept at networking and using each other as resources to improve instruction. Principal Diantha Ferrier of the Brunton School stated that schools and teachers have begun to talk to each other more and coordinate amongst themselves in an effort to move reform forward:

"... hey, we've always been the same people, we've always been a close-knit group of a big school system, I mean there's fifty principals, but we've always been unique in that we really do get along pretty well together. And, so why didn't it happen before, I think you have to look at the engine that's driving this whole thing, which is called MCAS. So that's what's different. So you're saying, what's different now, well, that's what's different. That he [Negroni] when he came was talking about all of this, and whether we were on the train or off of the train, were we willing to make changes quickly or are we against change, you know he really was trying when he first came, but you know now the MCAS is in the driver seat, it's like we've got to make changes because we did very poorly."49

Teachers are taking advantage of the opportunities to tour each other’s schools and to see how others teach similar lessons as a direct result of the accountability measures made possible by the MCAS.

47 Interview with Dr. Peter Negroni, Superintendent; Springfield Public Schools, February 25, 2000.
48 Interview with Principal Diantha Ferrier, Daniel B. Brunton School, Springfield Public Schools, March 9, 2000.
49 Ibid.
Unlike many smaller districts, Springfield has a Director of Research who manages data analysis for the district as a whole and for individual schools. The director delivers test score data to all principals and explains results, trends and overall implications. Individual principals then select which data to pass along to teachers in order to inform or direct instructional practice. As with most districts, Springfield has elected to focus on deficiencies in responses to open-ended questions. In addition, many Springfield schools have elected to focus on improving bilingual students’ scores.

Even with the elaborate planning and professional development processes combined with professional data analysis, Springfield has seen only modest improvements in student MCAS scores at the fourth and tenth grade levels. More importantly, the percentages of students falling into the Failing categories at the eighth and tenth grade levels is 50% to 75%; and this is across all subject areas. Although there have been only two years of MCAS data available to assess the implementation of the new program and planning initiatives, Springfield has a long way to go in getting the majority of its students to meet the high-stakes graduation requirements in 2003. While administrators state that the MCAS should test what the students already know, given the current test results it is difficult to say if the new initiatives have had any significant effect on student performance or to predict which of the initiatives may be the most successful in the long run.

Individuals interviewed at both the district and school levels agree that the development and implementation of the MCAS as an accountability measure has been integral in mobilizing educators and administrators at all levels to take education reform seriously. Prior to the MCAS there was little incentive for teachers and administrators at the school level to comply with reform efforts from the central office. Early attempts to implement reform measures were reported to be thwarted by lack of commitment on the part of schools. While the current accountability measures made possible by the MCAS have forced all district employees to participate in the reform effort, it is impossible to ignore that there still remain structural problems that may impede success.

Springfield’s large district size may have contributed to some of the capacity and coordination problems that Negroni experienced in his initial school evaluations. The information gathering and dissemination process was complicated by the number of schools and individuals that had to be coordinated in order to complete the evaluations. There was some question as to whether or not all schools understood and agreed with the plans for evaluations. In addition, one can speculate that once the evaluations were complete and the process of curriculum training for teachers and alignment of curriculum with the state standards was underway, there was still some confusion as to what the charge was. The multiple layering of district administrators, fellows, principals and teachers created numerous opportunities for breakdowns in communication, and for misunderstandings or lack of ownership of the mission. Add to this the plethora of social problems that Springfield teachers must deal with in the classroom, including child poverty, student transience and lack of English proficiency, and the adoption of a central mission that all teachers can rally behind is almost impossible.

As a result, the evaluation and planning process that Negroni undertook appears to have been successful in its breadth, but not its depth. The process of evaluating schools to find evidence of teaching and learning in classrooms involved upper layers of management across all schools and only sought specific evidence of teaching and learning. Intense discussions at the teacher level to incorporate external factors that interfere with teaching and learning seem to have been missed. Subsequent comments from schools seem to imply that there is only a superficial understanding of the mission of teaching and learning that has been developed by the district. In addition, there is little translation of that mission deeply into the organization. School level administrators’ actions are still being driven primarily by the accountability measures instituted with the MCAS, not by a commitment to the mission. This creates issues of sustainability of the reform effort over time. This is compounded by weak organizational connections across district and school strata through which services like professional development and instruction on curriculum must be delivered. While the
vision may be clear at the district level, it has little hope of taking hold if it is not adopted or owned at the classroom level.

The issue of district direction and mission is also evident in the treatment of test data. The size of Springfield allows the district to support a staff person to assist in the evaluation of individual school’s test score data, and to provide direct assistance to staff principals in using test information as necessary. It is reported that all principals understand and use test data to inform decision-making and changes to instructional practice at their schools. However, this level of reflection and examination of teaching practice does not seem to be transferred to the classroom. Some teachers may use test data to inform their teaching practice, but it is not required by the district that all teachers understand and use data. As a result, this only underscores the gap between administrative and teaching operations. Test score data may not be seen as informative or helpful to teachers, rather, it may be seen as something that is imposed by the district. Test data and its use become inextricably linked with the negative connotations of accountability and is thus a symbol of job insecurity. This does not bode well for improving teaching and learning.

However, these are not the only issues that may contribute to the lack of significant improvements in student performance as measured by the MCAS. Springfield’s student population is noted to be one of the most demographically disadvantaged in studies completed of Massachusetts school districts. Students in the district combat larger family and community problems that interfere with their ability to learn. There seems to be little room in the district’s teaching and learning plan to compensate for these external problems while attending to the business of improving student performance.

Springfield Public Schools have completed a complicated, broad assessment and evaluation process that has identified the need to focus on teacher development and curriculum content in the implementation of education reform. It may be too soon to see good evidence of district progress, but it is impossible to deny that Springfield is dealing with more than the issue of student performance. Springfield’s students have larger family and social problems that must be addressed in order to provide more focus on studies in the classrooms. In addition, clarifying the district mission and developing teacher support and understanding of the district vision for reform will be critical to the long-term sustainability of reform.
Data-Driven Accountability

Greenfield is an extremely small, rural school district with a student enrollment of approximately 2,700. There are a total of eight schools in the district, six are N-5, one is a middle school, and the last is a high school. The student population is 90.4% Caucasian, 5.9% Hispanic, 2.9% African-American and 0.9% Asian. 32.6% of students are reported to be eligible for free or reduced price lunches, 20% are classified as special education, and 2% of students are limited English proficient.

Greenfield has been under the district leadership of Dr. Basan Nembirkow since 1994. Nembirkow had a great deal of experience in both standards and accountability in past positions in Tennessee and North Carolina. He was known to be a change agent and a large ideas person, who was excellent at coordinating and directing the development of group goals and facilitating normally strained organizational relationships. He arrived in Greenfield at a critical time in the city. Relationships between the city government and the district were strained and city leaders had lost faith in the local education leadership. Nembirkow was able to organize important players in Greenfield, including city leaders, community members and the teachers union, and gain their trust and respect and help them to develop a vision of education reform that focused on data-driven accountability. The district was to be results-driven, based on educational outputs including student performance and perceptions of the community, teaching staff and students.

At the time that Nembirkow arrived in Greenfield, the district had one titled administrative position that existed to help with the improvement of teaching and learning. The Director of Instructional Services, Mike Smith, was responsible for curriculum, grants, and instruction, and had been in this position for two years. Nembirkow wanted to underscore the centrality of accountability and data to Greenfield’s reform plan. As a result, the position of the Assistant Superintendent of Accountability was created. Mike Smith was moved to this position, and another position, Director of Title I and Instruction was created to manage the $900,000 Title I budget and to coordinate curriculum and instruction. Carol Jacobs, a long-time teacher and then principal in the district, took this position.

In 1996, Mike Smith left the district to become the Superintendent for South Hadley, Massachusetts. Nembirkow wanted to continue to stress the importance of accountability, while simultaneously expanding the scope of the model by incorporating curriculum, and instruction under the same leadership. As a result, the office of Assistant Superintendent was abandoned in favor of the creation of a new office, Teaching, Learning and Accountability (TLA), which combined all of the accountability responsibilities and the Title I and instruction responsibilities under one manager, Carol Jacobs. This organization seemed to be more appropriate given the revisions to school improvement plans and the move towards implementation and action. Jacobs’ operations tended to be much more interactive with schools and teachers and it was believed that it would help implementation to have a direct connection between the curriculum, instruction and the method of measurement.

To help with the data analysis portion of Teaching, Learning and Accountability, there is a data analyst who has the joint responsibilities of overseeing a small staff of hardware and network technicians, and assisting schools in understanding test score data. The data analyst helps individual schools to read and understand test data, and is integral in helping schools to coordinate their annual State of the Schools presentations in which they report on individual school’s reform progress. The data analyst assists with interpretation of

50Department of Neighborhood Development.
scores only because it is critical that schools understand how to use data themselves. TLA sees itself as an organization that assists in building internal capacity in the schools, and forces schools to understand and have ownership of all aspects of the school improvement plan. The school improvement plan is a document created by each school that identifies problems that interfere with student performance, goals to deal with the problems, and action plans complete with benchmarks, data sources and individuals responsible for following up on actions. These plans are explained in more detail below.

Greenfield’s results-driven system is based upon a set of excellence indicators that were derived with the assistance of community members in September 1998 at the district-sponsored “Conference on Excellence”. The district invited members of the Greenfield community to participate in a discussion to identify indicators of excellence based on their response to the question, “What would you accept as evidence of a successful/excellent school system?”. The result was a list of 30 indicators that reflected excellence in the areas of academics, programs, community involvement, and organization. Indicators were all measurable and data-driven, and included:

“... scores on standardized tests, the percentage of students passing tests with distinction, student attendance and continuation rates, teachers’ perceptions of the effectiveness of staff development, administrative support, collegiality, citizenship, academic rigor and the workplace, parents’ perceptions of communication regarding student progress, academic rigor and school responsiveness to identified needs, student’ perceptions of citizenship and school spirit, the level of satisfaction by employers of recent graduates.”

Indicators are measured using a number of data sources including district and private surveys to poll school administrators and the community, standardized tests and attendance records. For each of these indicators, target goals and benchmarks have been identified. The results of this conference were compiled and distilled by the district and was finalized in 2000. It is known as the Greenfield Public School Plan for Continuous Improvement.

At the individual school level, schools have developed school improvement plans using the indicators of excellence as a foundation and framework. For each excellence indicator, a problem is identified along with a corresponding data source. Action statements are made as to how to solve the problem, and measurable progress indicators are established. Each action statement has a timeline and the individual responsible for making sure that there is follow-through is identified. In addition, there is a record of resources that need to be available in order to succeed. These strategies and actions are then divided into yearly increments in order to make the target goals more attainable. Annual progress towards the target goals are reported to the community through State of the Schools presentations that are highly quantitative and that use multiple data sources to show how schools are meeting goals.

The Office of Teaching, Learning and Accountability has devised a number of programs that assist in building capacity for schools while improving instruction for students and strengthening relationships with parents and community members. All schools are required to deliver an annual State of the Schools presentation for parents and the school committee. The presentations outline each school’s stated goals that

---

51 Interview with Carol Jacobs, Office of Teaching, Learning and Accountability, Greenfield Public Schools, April 27, 2000.
53 To date, the Baldridge in Education Initiative seems to be the only assessment of staff, student and community perception (i.e., how do you feel about the quality of staff development?) that has been identified by Greenfield. Unfortunately, school staff members are balking at adding this initiative to the already growing list of items that are occurring in the schools. There is a feeling that this doesn’t relate to the larger education initiatives and that another survey interferes with the ability for teachers to focus on critical reform issues.
54 Interview with Carol Jacobs, Office of Teaching, Learning and Accountability, Greenfield Public Schools, April 27, 2000.
relate directly to the district school improvement plan and illustrate, using data and measurements, the progress associated with those goals to date. These presentations are extremely data-intensive, filled with charts that show clearly the numbers and/or percentages of students that are meeting or exceeding each school’s goals.

To help teachers to meet the goals that will be outlined in the State of the Schools presentations, the district is working towards completing standards in all subject areas. To date, the district has completed the literacy and mathematics standards, and is currently working on completing science standards. The standards are aligned with the state curriculum frameworks, and hence, should be aligned with the MCAS test.

At the same time, the district has realized that teachers need to understand their progress in meeting the new standards in addition to the MCAS so that constant adjustments to teaching practice can be made. As a result, a system of benchmarks and intermediate measurements will be established in the next school year. These monitoring systems will give teachers and schools a constant source of data to use to make adjustments to teaching practice and to improve student learning. According to Jacobs, the elementary schools are further ahead in using both standardized tests and intermediate assessments and monitoring, with the middle school close behind. The high school has been using standardized mid-term examinations for all subject areas but is having more difficulty changing to a data-driven system due to organizational and structural issues that are currently being addressed by the district. Until recently, the district felt that staff members at the high school were unable to give the reform effort their full attention due to leadership problems and misunderstandings of the district reform effort and mission. Greenfield High School has recently undergone a planning process explained in detail below that has helped to focus the staff, strengthen school leadership and improve district-staff relations.

To help teachers and administrators to understand the reasons for standards and the ways in which to use data and assessments, Greenfield has been actively pursuing professional development services for its teachers using resources such as Mass Insight Education and the New England Foundation for Children. Jacobs has the responsibility of advertising professional development course offerings, as well as selecting the teachers and administrators to whom courses will be offered. Jacobs explained that professional development skills are great for individual teachers and better for the entire system if there is an up front understanding as to how the skills taught to one will be transferred to the rest of the group. She makes a differentiation between courses that teach skills that will bring about change because of targeted teacher change, and courses that effect more deep changes across the system for all teachers. The depth of change is measured by the number of teachers and staff people affected across all levels of teaching. This means change across all schools, all principals, teachers and students.

Some professional development training is passed along to other teachers through informal channels, i.e., one teacher learns a number of new methods and uses them in his/her classroom. Other teachers become aware of the new methods, are interested and ask to be coached. This would be considered to be targeted teacher change. The first teacher sent to the program would be an extremely strong teacher who is believed to have the ability to adopt the new teaching methods quickly and effectively. Unfortunately, there are few opportunities for teachers to network and learn from each other’s classrooms during school hours. Classroom coverage is difficult to achieve given the shortage of substitute teachers in Massachusetts. In addition, Greenfield has not developed a culture of peer-coaching. As a result, much of this type of learning remains with the teacher who received direct training.

The second type of professional development is that which can develop skills more deeply in the system. These courses are typically address the more macro issues of standards and accountability and offer important skills to be transferred as deeply into the system as possible because they provide the basis for the entire reform effort. These types of courses have been offered by both Mass Insight and the New England Foundation for Children and the selection of attendees is left to the schools themselves. Lessons learned
from these training sessions are then passed along to schools and teachers through a more formalized system. Jacobs hosts post-training discussion where workshop attendees identify the key areas of training that they feel were important and that should be adopted by the district as a whole. The most recent item adopted was one which was used at a Mass Insight training. The teachers decided that the unit planning method of outlining lessons was a good way to teach a set of skills related to specific standards, and proposed to take the method back to their individual schools.

Jacobs tracks the professional development courses and instructors closely, attending as many of the courses as possible in order to familiarize herself with the materials and to identify potential consultants and instructors to bring back to Greenfield to teach to a wider teacher audience.

The wide range of instructional improvement initiatives has both strengthened and taxed relations between the teachers union and the district. Representatives of the teachers union claim that there is a strong positive relationship between the district and union, with a great number of opportunities offered by the district for teachers. They claim that is was rewarding to attend workshops and training sessions to learn what other districts were doing to respond to reform and to see that Greenfield is far ahead in the process. At the same time, teachers complained that there were too many different initiatives in progress and that it created a sense of urgency and pressure and made juggling tasks difficult. This has become an area of further investigation by the district, and seems to the be result of capacity problems because the pool of teachers on staff is so small given the district’s size.

The district has recognized that capacity is an issue and has been active in attempting to streamline programs to reduce pressure on teachers and to help to prioritize initiatives. In the past, the district had been extremely active in applying for sources of grant funding to support new programs, regardless of whether or not they related to the school improvement program. There was such a need for change and a need for funds, that this method of fund-raising seemed to be appropriate. However, adding new programs was not helping with the reform effort as a whole. Jacobs pointed out that her office has become much more strategic about soliciting funding for programs, and that all grant proposals that she responds to are to support existing programs. She highlighted the most recent Elementary Literacy Grant that has helped to provide five Greenfield elementary schools with funds for a part-time literacy coordinator to support their existing literacy programs. Jacobs also pointed out that the capacity issue is also the result of existing teachers taking on additional paid responsibilities associated with student enrichment programs. As more teachers sign up to teach additional programs, they work more hours and have less time for networking and training. The district’s response to this is to attempt to be more discriminating about the number and types of positions created by grant funds, and to try to be more creative about dividing up teaching responsibilities for these additional programs. In addition, the district is planning to advertise for more teachers next year.

Issues between the district and the union can be discussed in a monthly meeting with the superintendent, TLA and the school committee in a forum called Tea-Time. Typical attendees include, union representatives, the superintendent, the director of TLA, and members of the school committee. At these meetings, parties have a chance to discuss any topic that affects the group as a whole. Conversations of late have been around Nembirkow’s decision to participate in the Baldridge in Education Assessment to gather organizational data about the district. Representatives of the teachers union feel that this may simply be another initiative that takes more time and may detract from the overall reform effort. The district feels that there is a need for another source of data about organizational and operational relationships and individual’s feelings about reform implementation. The group discussions have been an effort to clarify why this type of data may be necessary, and how this could help to better inform the district about initiatives that are perceived to be working, and those that are just adding to the pressure.

While the elementary schools and middle school have begun to see success with the adoption of new policies and procedures, the high school has been slower to start. Greenfield High has experienced extremely high
leadership turnover, with four principals in the past seven years. The high school had a long history of staff issues and had not yet organized itself to accept the changes brought about by the Reform Act. As a result, the district elected to first address working environment and culture issues in the high school through long-range planning exercises before beginning to implement serious changes in teaching and learning. The district asked high school faculty and staff members to volunteer to participate in self-organized, cross-departmental Commitment Teams, to discuss and identify the five priorities and recommendations to make the school environment and thus, teaching and learning, better. The Commitment Teams have proven to be extremely effective in allowing staff and faculty to sit down and discuss common goals and action plans. In addition, they have helped to foster better staff and faculty relations while generating a number of exciting ideas.

One of the Commitment Teams has drafted an idea for a reorganization of the high school structure. They have proposed a ninth-grade teaming structure, where freshman will receive a package of services at the high school level that helps to ease the transition from middle school to high school. Ninth-grade teachers across all content areas commit to participating in a mini-academy for freshmen; they organize lessons that relate across subject areas, provide direct student mentoring and counseling, and make available tutoring in all subject areas throughout the school day. The idea is to retain and strengthen ninth-graders and to give them a good foundation for the remainder of high school. This teaming structure is currently being discussed at the district level and may be implemented as early as next year. There is a hope that this type of structure will be used as a model by other high school grades and portions of it can be modified to help with teaching and learning for upper-classmen.

Nembirkow reported that upon taking the position as superintendent, he was appalled to learn that the district in the past had not used data as a means of charting progress and making improvements in the system. He was told that MEAP test scores were compiled and delivered in a presentation to the School Committee, but that the information was never really used to inform instructional changes. However, given the number of data sources that Greenfield now has at its disposal, there seems to be little improvement in student performance. Again, it may be too early to get any significant results from MCAS, but to date student performance on the test has been declining for tenth graders, holding steady for eighth graders and has only seen marginal improvement for fourth graders. Poor test scores at the higher grade levels may be explained by the district's early attention to the elementary schools and the delays in addressing specific organizational issues at the high school level. However, given the district's small size, it would seem reasonable that the task of monitoring the progress of staff and students and delivering targeted assistance to both at all grade levels would be simplified. In addition, the elaborate planning process to identify the indicators of excellence should have been critical in identifying the educational goals of the district and community and should provide the framework within which all teachers operate.

It may be that in the effort to address the indicators of excellence, the district has taken on too many initiatives that have spread staff and resources too thinly. The need to use data to drive absolutely everything that occurs in the district as a means of charting progress towards excellence, while useful, may be detracting from the overall reform effort. Teachers’ negative response or skepticism concerning the proposed Baldridge Initiative is a prime example. The district needs a means of collecting qualitative data in order to measure the success or failure of organizational relationships, the perceptions of students, community members, and potential employers, as reform progresses. This information is to be used to identify potential areas of strain, gaps in services, and overall satisfaction with reform progress and outcomes. Unfortunately, taking these types of measurements, while ultimately helpful to the district’s reform effort as a whole, is seen as a distraction and not relevant to the daily operations of teaching and learning. Teachers are already overwhelmed with additional tasks like staffing after-school and remedial programs, making the idea of dealing with another measurement an immediate burden of little value. Moreover, the types of things to be measured are extremely subjective. It becomes difficult to imagine how these types of perception-based indicators of excellence will fare as the reform effort moves forward. What will it mean if the subjective
indicators of excellence are considered to be on target, while the objective measures, like standardized test scores remain marginal?

As noted above, the use of data and the need for accountability drives the entire Greenfield Public Schools reform effort. The district has made every effort to ensure that all steps taken in making improvements in teaching and learning and tied to specific means of measurement and can be matched against set benchmarks and long-term targets. By quantifying measures of progress, student improvement, community perception, and teacher satisfaction can all be tracked and the appropriate adjustments can be made to better meet individual school's and the overall district target goals. By involving the community in the process of establishing these goals and benchmarks through the indicators of excellence, there is a larger, civic appreciation and support of the reform effort.
Chapter 7 - Analysis

The districts of Woburn, Springfield and Greenfield have taken strikingly similar approaches to addressing education reform and the MCAS. As noted in the cases, all three districts have gone through three distinct phases: an evaluative process to identify needs and goals, a recognition that curriculum alignment is integral to meeting the demands of the new standards and the test, and an acknowledgment that investing in teaching and professional development is critical to improving student performance. Of greater interest however, is that although the districts have followed similar paths, they are experiencing varying levels of success as measured by the MCAS. Due to the similarities in approach, it raises questions about how deeply the mission and focus of the reform effort has been embedded into each of the districts, and whether or not the MCAS is a true measure of teaching and learning in the classroom.

**Woburn**

Woburn has experienced the most favorable MCAS test scores to date, with high percentages of students at the fourth and eighth grades scoring in the Advanced and Proficient categories, and with relatively small percentages of students in the Failing category. This appears to be the result of district attention of the alignment of standards to curriculum grade by grade, as well as district monitoring of student test score data. The district seems to be extremely active in identifying both district wide and school specific trends in student performance, and addressing perceived weaknesses with district designed and supplied teaching materials. Teaching materials are very specific and directly target student weaknesses as identified by data collected at the district level.

Unlike any of the other districts interviewed, Woburn provided its students with test-taking techniques that were very similar to those that would be taught in private test preparation courses like Kaplan or the Princeton Review. While these skills are no doubt helpful for students to know and there is evidence that these techniques have helped Woburn students to improve their performance on the assessment, there are some questions as to how test-taking skills relate to the curriculum and teaching and learning. It is possible that curriculum and true teaching and learning are taking a backseat to the test in the course of directing energies to improving test scores.

While administrators at Woburn insist that they have managed to integrate the standards and preparation for the MCAS into the daily activities of teaching and learning in the classroom, there seemed to be an overwhelming preoccupation with the test. Administrators interviewed for this project reported that students were known to ask in class, “is this something I need to know for the MCAS?”. Students seemed to understand the standards against which they were being measured, but in the sense of test format and question framework rather than in true learning. Students were being told that one of the critical differences between a grade of 3 (Proficient) or 4 (Advanced) in open-response questions is the number of examples given to answer the question. If the question asks for five examples, students were encouraged to give six in order to achieve at a higher level. This type of approach to the test seems to be delivering great results, but may not be achieving the original purpose of student learning.

In addition, Woburn has not been able to replicate its positive test results at the high school level. This may be the result of a late introduction of reform measures to the high school in conjunction with larger social and behavioral problems that tend to set in with students in the upper grades. As time moves on, it will be interesting to see if the skills developed in Woburn students at the elementary and middle school levels are reflective of true learning. If this is the case and if the MCAS is truly a test that measures cumulative knowledge and comprehension, we should continue to see high performance scores at the high school level for these same cohorts of students.

**Springfield**
Springfield faces a substantially different situation. Springfield has among the highest percentages of students failing the MCAS in the state. Across the three grades that the test is administered, scores fall predominantly in the Needs Improvement and Failing categories. Of some note, is that student performance in the and tenth grade shows marginal improvement between 1998 and 1999. However, while the percentages of students failing may be declining, they are declining from a baseline of 70%. This greatly diminishes the sense of victory.

Springfield's problems seem to be the result of a number of factors including a well-intentioned evaluation process and mission that has not trickled down to the classroom level, a spotty professional development strategy, and a student population that has needs that are beyond the reach of the district.

Dr. Negroni's elaborate district and school assessment process, while comprehensive and inclusive at the district level, seems to have missed input from both teachers and the community. His use of principals and administrators to review and evaluate each other's schools for evidence of teaching and learning based on the Principles of Learning demonstrates a good use of educational reform theory, but places little emphasis on district and personnel relations. These assessments of schools were completed and the information compiled in a report that informed schools that one of the most critical problems was teachers' knowledge of curricula. However, teachers were not directly included in the process, nor was the community involved in a discussion of how external pressures on students could be mitigated to help with the reform effort. Therefore, it seems difficult for teachers to truly understand and support the district's efforts.

Similarly, the district's professional development plan to improve teachers' knowledge of curriculum may be suffering as a result of this lack of teacher ownership of the district mission. The professional development strategy relies heavily on the use of principals as instructional leaders that work with district curriculum coordinators to learn to identify teaching and learning in their schools' classrooms. These principals are then expected to train their teachers to complete these reviews as well. However, conversations with school administrators made it clear that Negroni's new strategy of visiting schools and networking to share ideas was really not based on an allegiance to the new mission or goals developed by the system. These were activities that teachers and administrators were participating in because the MCAS and school accountability demanded that reform efforts take place. Based on these statements, it raises the question of whether Springfield is failing to see improvements in the classroom because teachers do not truly understand or feel ownership of the mission to improve instructional practice. Teachers have not really been included in the process of developing goals and creating strategies to improve their ability to deliver better instruction.

And finally, Springfield has one of the most challenged student populations in the state. According to Department of Education data, 71.1% of students are eligible for free or reduced-price lunches, 11.5% of students are limited English proficient and 17.6% are special education students. High levels of poverty and limited educational attainment in the communities in which students live create both financial and social instability. In addition, according to research completed by Mass Insight Education, large percentages of students falling into the Failing category tend to be those that are limited English proficient or classified as special education. These factors can be contributing to the district's larger percentages of students failing the test and the lack of improvement over time. Until these problems are addressed there may continue to be poor results on the assessment.

Greenfield
Greenfield also has shown very small improvement in MCAS test scores over time. Fortunately, Greenfield's baseline of percentages of students failing the exam is not as high as Springfield's. However, for such a small district it seems difficult to believe that Greenfield is having similar problems with teacher ownership of the reform strategies.
In fact, Greenfield’s small size and comprehensive community process to develop the Indicators of Excellence seem to exactly counteract what appears to be happening in Springfield. The extensive community and school involvement in both developing the indicators and tying them back into School Improvement Plans complete with actions assigned to individual teachers and administrators, place the goals of the district in everyday teaching and learning. The State of the School reporting system also creates measures that the community can use to monitor progress towards the indicators. The planning process has helped the district to ensure that all groups involved in affecting the ability of Greenfield students to learn are pulling in the same direction and have similar understandings of measuring the success or failure of initiatives.

However, many of the indicators identified and adopted by the district and the community are difficult to measure and quantify. Indicators that measure the perceptions of students and teachers of the quality of services they are receiving, while helpful in a qualitative sense, involve time-intensive data collection and result in data sets that are difficult or impossible to quantify. Greenfield’s reform efforts focus heavily on the continuous collection of data to be used to inform improvements in teaching practice or to improve organizational relationships. However, in reality how useful is the data, and at what point does its collection begin to overwhelm the system and interfere with implementation of reform? Greenfield is already beginning to see some grumblings from teachers and administrators concerning the new Baldridge in Education Initiative. At the classroom level, teachers have stated that the number of new initiatives are beginning to place pressure of teachers who are unable to cope with the quantity of projects initiated at the district level. The introduction of one more initiative, especially one that is strictly about data collection, is seen as detracting from the overall implementation of reform.

More importantly, even with the data-intensive focus of Greenfield’s reform effort, there have been few changes in student performance as measured by the MCAS. It is possible to explain the stagnant scores at the high school level on the district delay in implementing reform measures. However, even the scores for elementary students, where most districts have begun to see some improvement in test scores, have shown little improvement, and math scores for this same cohorts have declined. This may be the result of the district’s work on multiple indicators at the same time, rather than a strict focus on a single item like curriculum alignment. This raises the question of whether or not the district has spread itself too thinly, with a large number of excellence indicators that students and teachers must work on simultaneously. This diminishes the focus and dilutes the effect of reform.

It could be stated that many of the barriers that districts seem to be encountering are the result of implementation issues that have arisen because of problems that fall in the category of Hill and Celio’s Zone of Wishful Thinking. Hill and Celio note that standards-based reform assumes perfect relationships between people and organizations. It also assumes that all groups involved in education reform, legislators, educators, students, parents, all have the same goals, and that they have unlimited drive and perseverance. And finally, that there are professionals who are available to provide assistance to teachers trying to get students to meet the standards.

As noted in the case studies, these things are not always in place. While it is difficult to control relationships between people and organizations, it is critical to the reform effort that all groups involved in student learning have the same or similar goals in reform implementation. Greenfield seems to have attempted to begin this process with the development of the Indicators of Excellence. The district has paid close attention to the importance of including the community in the process of developing goals for reform and benchmarks to mark progress. In this way, the reform effort can be understood and supported at all levels of the education system. Springfield has begun the process of developing group goals, but has failed to create good ownership of the reform effort because the reform strategy was dictated from upper levels of management. This may be the result of district size; Springfield has a much larger system of schools and teachers to manage, making a more community-based and inclusive goal-setting process more difficult. And Woburn
seems to be benefiting from the effects of age. Over time, Wobum has managed to develop formalized
processes at the district level to transfer information about district goals and benchmarks directly to schools
and classrooms. There is evidence that their success is largely due to the persistence and hard work of key
individuals at the district level.

Greenfield and Springfield also seem to be suffering from a lack of clarity and focus to their reform efforts.
This creates issues for teachers in the field who are trying to acclimatize to new initiatives and to prioritize
new efforts. The sheer numbers of initiatives in Springfield and Greenfield classrooms make it difficult to
focus on one long-term reform strategy. Springfield’s constant observation of classrooms is not centered on
just literacy or just math, the district is trying to attack all fronts at once. The same is true for Greenfield.
The desire to collect data and to monitor all aspects of school operations interferes with the ability to focus
on just literacy or math skills across all grades in the district. Wobum has attempted to solve this problem
with district-led efforts to focus reform on such topics as English Language/Arts and open-ended questions.
However, there is a single-mindedness of effort that is so intent on the outcomes of MCAS, that there are
questions of whether or not students are truly learning the curriculum, or learning to take the test. Ironically,
it is Wobum’s success with the MCAS that continues to drive students, teachers and parents to support the
district’s reform efforts. There is nothing like success to generate positive energy. However, it will be
unfortunate to create a positive response to an effort that may not be achieving the underlying goal of
children learning.

And finally, standards-based reform assumes that professional assistance is available to assist districts in the
reform effort. While on the surface for all three districts there seems to be technical assistance available to
support reform, there are still questions as to how deeply this assistance reaches into the schools, particularly
in the areas of data and professional development. Districts are still using data very differently, with districts
like Springfield choosing to deliver data and conclusions to schools rather than encourage them to
manipulate their own data sources. In contrast, Greenfield and Woburn have extremely data-intensive
programs that require teachers to understand and use classroom data. Professional development is delivered
to districts somewhat randomly. Greenfield makes distinctions between teachers that can really adopt
professional development techniques, and teachers that must receive professional development in order to
better understand the underlying reform strategy. While Greenfield has made good distinctions as to how to
best spend its teachers’ time and district resources, there are still questions of how professional development
skills are monitored following workshops and training. This appears to be the problem in all districts – is
technical assistance available on a continual basis following training, and how do districts identify teachers
that need additional help.

While districts seem to have recognized that they are not working in a perfect situation with all of the pieces
in place to allow for good implementation of standards-based reform, it is interesting to note that each
district has attempted to make the items on Hill and Celio’s list happen. Not surprisingly, however, the
districts are encountering a number of roadblocks. There is hope that with time, many of these issues of
organizational relationships, district focus, resource and curriculum alignment, depth of technical assistance,
etc., will be resolved.
Chapter 8 - Conclusion

The stories of the Woburn, Springfield and Greenfield Public School districts illustrate remarkably similar approaches to instructional practices in response to changes outlined by the Massachusetts Education Reform Act of 1993. More importantly, all districts included in this study overwhelmingly attribute the MCAS test and the accountability portion of the Education Reform Act with providing the incentives to teachers, students and administrators to address reform in Massachusetts seriously. The use of the MCAS has been described as akin to a revolution in education reform in Massachusetts; it has raised the bar for public educators and has galvanized the state into action. While districts interviewed for this study are admittedly a self-selected group that are not necessarily representative of all districts in the state, they are significant in that they are all districts that support standards-based reform and the MCAS. As such, it should be expected that these would be the districts working the hardest to improve student performance. Therefore, the difficulties that they encounter and the barriers to their success may be severely magnified in other districts that lack this commitment to reform.

While all districts interviewed were equally dedicated to and passionate about their work, there still remain questions as to why student performance outcomes are resulting in little or negative change as measured by the MCAS. If these districts are all aligning their curricula to meet with the state standards from which the MCAS questions are drawn, and if the MCAS is supposed to be a test of student mastery of these standards, why has little changed? The answers to this are purely speculative given the short time period for which data is available, however, there seem to be some similarities in the districts that give hints as to the barriers to reform. The barriers fall into a few different categories including, resources and capacity, leadership and organization, goals, accountability and the test.

Resources and Capacity
All Massachusetts districts, particularly those in less affluent communities, suffered greatly in the 1970’s with the enactment of Proposition 2 1/2 which affected the level of local tax assessment and the allocation of these taxes towards public services. Proposition 2 1/2 decimated public school budgets, forcing districts to lay-off numerous teachers, increase class sizes, and cut back on programs. In February 2000, the Education Management Audit Board released the first report of initial findings concerning district expenditure of reform to funds to date. The report concluded, like so many others, that the total additional funding committed to reform efforts has not yet significantly impacted student performance as measured by the MCAS. However, the report and subsequent conference highlighted numerous districts including Everett, Auburn and Worcester, that have benefited from reform funds by being able to add additional staff and resources that were depleted as a result of Proposition 2 1/2. It is very possible that EMAB may not have noted significant changes yet due to the need for districts to ramp up staffing first before being able to implement wholesale instructional improvement measures. As a result, it is very possible that we are not seeing immediate improvements in student performance because schools have only recently received additional funding to reduce class sizes, hire additional staff, increase teacher salaries, purchase books and equipment and make accommodations for more intense on-site teacher training. As these resources are absorbed and folded into the systems we should expect to see more concentration of student improvement.

In addition, smaller districts in particular will continue to struggle with capacity issues by the nature of their size. The teacher shortage in Massachusetts combined with limitations on funding for staff and the need for additional hours of instruction for remedial or supplemental education will continue to be a problem for many districts. In many ways the desire for more programs and the ability of teachers to meet the demands

---

of new programs are diametrically opposed; there are neither enough staff members nor time in the day to get everything accomplished.

Leadership and Organization
At the same time, district approaches differ slightly in their underlying intent based upon district culture that is generated and perpetuated by district leadership. It is difficult to say whether or not district leadership and culture will affect the efficacy of reform efforts in the long-run, given that many of the reform practices are the same across the three districts evaluated. However, it is clear that good results for all of these programs can only be seen following sustained progress of the reform initiatives. In the past two years that data has been released for the MCAS, there have been no statistically significant changes in test scores making it difficult to assume that there have been significant changes in instructional practices. However, it is believed that continued support and refinement of existing reform efforts should result in long-term changes to the performance of Massachusetts’s students.

Of more of an issue will be how districts address sustainability of the reform effort. It is impossible to separate the importance of strong leadership and vision in the reform process and the need for the continuity of both in order to sustain the charge. As mentioned above, it is difficult to say if leadership and culture are the critical factors in the reform movement, however, as we move into 2000, it is important to further explore the issue.

The district leadership in Woburn, Springfield and Greenfield have been extremely important especially in the initial stages of reform which involved evaluation and identification of the problems, potential resources, and the plans of action. However, at the conclusion of this research, it came to light that two of the three superintendents interviewed had made arrangements to move on to other positions in the field of education. They each felt that they had contributed all that they could to their respective districts and that it was time to move on.

This raises some questions concerning the continuity of the reform effort and sustainability in the middle and late-stages of implementation. Other administrators interviewed stated that it is not unusual for superintendents to have an average tenure of three years. In addition, many of the superintendents who are making sweeping changes in light of the Education Reform Act are change agents, who do their best work in the beginning stages of reform, with large ideas and crafting visions. These are not always the same leaders for the implementation process that requires much more detail and fine management. As a result, it may be safe to say that as we enter the seventh year of Massachusetts’ reform movement, we may begin to see an acceleration in vacancies at the upper levels of management. As a result, it becomes even more important in evaluating districts for ‘depth of culture’ as a measurement of the success of reform efforts. Success or failure of the reform efforts as outlined in this study may only be able to be gauged by the depth at which they have taken hold in the organization of the district. District leadership that have made strong efforts to ensure that the vision of reform has been adopted at all levels of the district, from the superintendent down to the students and communities, have a better chance at sustaining reform and seeing good reform outcomes.

Goals
Strong leadership and district vision or culture directly affect a district’s goals. District goals in all cases were not extremely focused. It seemed that districts were trying so hard to ensure that students would succeed that there were too many initiatives which created conflicting priorities. Districts need to specify clear, strong and specific goals upon which all schools can concentrate their efforts. Teachers, community members and students should understand the reform priorities and all resources, human and financial, should be pulling in the same direction at the same time. The district should make every effort to ensure that everyone understands the goals as well as the prioritization. Without this type of focus, resources and energies are diffused and it becomes impossible to measure progress.
Accountability
While the districts interviewed are all notably dedicated to reform, and district administrators agree that the MCAS and accountability have been a boon to jump-starting reform efforts in the state, there are some discrepancies in incentive and penalty structure. Accountability in Massachusetts means that MCAS test results for all schools and districts are now broadcasted to the public, and that schools that fail to perform leave themselves vulnerable to reconstitution by the state. This creates a great deal of public and political pressure for teachers and administrators. In the short run this may be ideal, in that school administrators are incentivized to change their way of working. However, in the long-run, if the accountability measures continue to hang over the heads of schools, teachers may be tempted to begin to teach to the test-increasingly structure all class work to deal with preparation for the test. This could be seen as a variation of the drill and kill method, with students spending more time in school dealing with the test rather than learning the lessons outlined in the curriculum frameworks.

The Test
The MCAS test itself may create a number of barriers for schools. Again, the MCAS test has been seen as both a blessing and a curse for the state. On the positive side it has provided the incentive for districts and schools to begin to change practices to meet the new state standards for education. On the flip side, it has created controversy as a single measurement of student performance that does not apply to all students and as a hurdle that all students must clear in order to graduate.

It is possible that the test results that have been published for the test are not really indicative of what is happening in the classroom. To reference again the study that was released by Mass Insight Education in April 2000, large percentages of students falling into the Failing category are in fact special needs students, or students who are on different curriculum alignments due to their special status or things beyond their control. The report stated that the percentages of students Failing the exam were misleading. Many of the students are in fact special education and limited English proficient students who are required to take the MCAS, but do not have the curriculum background to succeed. In addition, many urban school districts reported that their schools were so far behind in curriculum alignment that many students had not even taken Algebra I prior to taking the MCAS. It is difficult to expect students who are ill-prepared by the nature of curriculum alignment issues or special needs to be successful.

What this means for Massachusetts as the reform effort moves forward is three-fold:

Leadership at the district and school level is critical to any progress. Inherent in this leadership is an understanding and commitment to clear, focused goals that can be attacked head-on with strategically focused resources, and that can be measured using good data sources. Changes in the stages of reform implementation should be noted and leaders selected accordingly. As leadership turnover occurs, districts should hold firm to the underlying mission and goals, while attending to the details of daily operations and reflecting on policy and practice to be constantly refining and improving. Districts need to move quickly to align curriculum with state standards and to provide teachers with as many resources as possible to help them in their work. This means more direct training, peer coaching and time to network. The goal should be to concentrate on digging down as deep as possible to really establish reforms at the classroom level.

Districts and schools should think about the role of accountability and how it affects daily operations and the path that schools are taking to address teaching and learning. While the state has mandated that schools be monitored by progress measured by student MCAS test scores, districts and schools need to resolve the conflicting issues of this single measurement and true student learning. While the test has become the one indicator that the public is watching, it is not the only measurement of student progress. There is a real danger that the preoccupation with the test can adversely affect learning in the classroom, by becoming the sole focus of classroom activities. Better explanations by the state of what it means by accountability and
reinforcement at the district level that test data can be used to assist teachers in doing their jobs would be extremely useful.

And finally, there needs to be a public acknowledgment that a large percentage of students will not meet the MCAS graduation requirements in 2003. This is not necessarily because Massachusetts districts are not working hard or changing their operations, or that the new initiatives and additional funds spent have not been effective. This is a larger discussion of the length of time it takes to see results, the effectiveness of the test to measure performance and student knowledge, and greater social problems that cannot be addressed solely by schools.

Students in the first years that the graduation requirements are enforced will not have had full the benefit of reform initiatives and therefore do not have as strong a foundation to work from to succeed on a test that measures cumulative knowledge and skills. Many of the individuals interviewed for this study suggested that the scores for passing in the exam in the first couple years need to be slightly lowered in order to compensate. In addition, the high-stakes characteristic of the test, while targeted at educational equity, is simply one measurement of student progress. While the test is credited with making reform happen in Massachusetts, it may not truly be reflective of what students are learning. And finally, districts that are already struggling with the test are plagued by numerous external factors that further impede progress. Districts that suffered budget cuts in the 1970's are attempting to reinstate programs and ramp-up as quickly as possible while still dealing with larger proportions of special needs students. These districts are struggling to catch up and tend to contain the largest percentages of students with the least community and family support systems. These are students that may have to be addressed through alternative programs such as those provided by community colleges.

This is not to say that education reform in Massachusetts is not working. Rather, as we approach the benchmark year of 2003, it is time to take note of changes to date and begin to create safety nets for students who will not meet the requirements of graduation. It is important to understand that there still has not been adequate time for students at the upper grade levels to see substantial progress. However, if the successes seen at the elementary and middle school grades are any indication of future student performance, Massachusetts has in fact begun to deliver world-class education to public education students.
Figure 1 - Statewide MCAS Data

1998 and 1999 Statewide MCAS Performance Level Results: Grade 4

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>1998 230</td>
<td>1%</td>
<td>19%</td>
<td>66%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>1999 231</td>
<td>0%</td>
<td>21%</td>
<td>67%</td>
<td>12%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 234</td>
<td>11%</td>
<td>23%</td>
<td>44%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>1999 235</td>
<td>12%</td>
<td>24%</td>
<td>44%</td>
<td>19%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 238</td>
<td>6%</td>
<td>42%</td>
<td>40%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>1999 240</td>
<td>10%</td>
<td>46%</td>
<td>36%</td>
<td>9%</td>
</tr>
</tbody>
</table>

1998 and 1999 Statewide MCAS Performance Level Results: Grade 8

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>1998 237</td>
<td>3%</td>
<td>52%</td>
<td>31%</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>1999 238</td>
<td>3%</td>
<td>53%</td>
<td>31%</td>
<td>13%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 227</td>
<td>8%</td>
<td>23%</td>
<td>26%</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>1999 226</td>
<td>6%</td>
<td>22%</td>
<td>31%</td>
<td>40%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 225</td>
<td>2%</td>
<td>26%</td>
<td>31%</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>1999 224</td>
<td>5%</td>
<td>23%</td>
<td>27%</td>
<td>45%</td>
</tr>
<tr>
<td>History and Social Science</td>
<td>1998  -</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1999 221</td>
<td>1%</td>
<td>10%</td>
<td>40%</td>
<td>49%</td>
</tr>
</tbody>
</table>

1998 and 1999 Statewide MCAS Performance Level Results: Grade 10

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>1998 230</td>
<td>5%</td>
<td>33%</td>
<td>34%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>1999 229</td>
<td>4%</td>
<td>30%</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 222</td>
<td>7%</td>
<td>17%</td>
<td>24%</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>1999 222</td>
<td>9%</td>
<td>15%</td>
<td>23%</td>
<td>53%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 225</td>
<td>1%</td>
<td>21%</td>
<td>42%</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>1999 226</td>
<td>3%</td>
<td>21%</td>
<td>39%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Source: Massachusetts Department of Education website.
**Figure 2 - Woburn MCAS Data**

### 1998 and 1999 Woburn MCAS Performance Level Results: Grade 4

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/ Language Arts</td>
<td>1998 237</td>
<td>2%</td>
<td>34%</td>
<td>61%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>1999 238</td>
<td>1%</td>
<td>38%</td>
<td>59%</td>
<td>1%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 240</td>
<td>15%</td>
<td>31%</td>
<td>44%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>1999 244</td>
<td>22%</td>
<td>33%</td>
<td>40%</td>
<td>5%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 244</td>
<td>11%</td>
<td>55%</td>
<td>31%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>1999 249</td>
<td>23%</td>
<td>57%</td>
<td>19%</td>
<td>1%</td>
</tr>
</tbody>
</table>

### 1998 and 1999 Woburn MCAS Performance Level Results: Grade 8

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/ Language Arts</td>
<td>1998 243</td>
<td>3%</td>
<td>69%</td>
<td>25%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>1999 245</td>
<td>5%</td>
<td>70%</td>
<td>24%</td>
<td>1%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 234</td>
<td>8%</td>
<td>33%</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>1999 230</td>
<td>3%</td>
<td>25%</td>
<td>46%</td>
<td>25%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 232</td>
<td>1%</td>
<td>36%</td>
<td>41%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>1999 230</td>
<td>6%</td>
<td>28%</td>
<td>36%</td>
<td>30%</td>
</tr>
<tr>
<td>History and Social Science</td>
<td>1998 -</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1999 227</td>
<td>0%</td>
<td>18%</td>
<td>52%</td>
<td>30%</td>
</tr>
</tbody>
</table>

### 1998 and 1999 Woburn MCAS Performance Level Results: Grade 10

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/ Language Arts</td>
<td>1998 238</td>
<td>5%</td>
<td>48%</td>
<td>38%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>1999 232</td>
<td>5%</td>
<td>35%</td>
<td>35%</td>
<td>24%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1998 222</td>
<td>4%</td>
<td>20%</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>1999 226</td>
<td>14%</td>
<td>13%</td>
<td>27%</td>
<td>45%</td>
</tr>
<tr>
<td>Science &amp; Technology</td>
<td>1998 232</td>
<td>1%</td>
<td>31%</td>
<td>52%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>1999 228</td>
<td>1%</td>
<td>25%</td>
<td>44%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: Massachusetts Department of Education website.
Figure 3 - Springfield MCAS Data

1998 and 1999 Springfield MCAS Performance Level Results: Grade 4

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td>1998</td>
<td>224</td>
<td>0%</td>
<td>7%</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>226</td>
<td>0%</td>
<td>7%</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>1998</td>
<td>224</td>
<td>3%</td>
<td>12%</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>225</td>
<td>4%</td>
<td>12%</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td>1998</td>
<td>229</td>
<td>2%</td>
<td>21%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>230</td>
<td>3%</td>
<td>26%</td>
<td>50%</td>
</tr>
</tbody>
</table>

1998 and 1999 Springfield MCAS Performance Level Results: Grade 8

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td>1998</td>
<td>226</td>
<td>0%</td>
<td>24%</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>226</td>
<td>0%</td>
<td>22%</td>
<td>42%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>1998</td>
<td>211</td>
<td>1%</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>210</td>
<td>0%</td>
<td>5%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td>1998</td>
<td>212</td>
<td>0%</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>209</td>
<td>0%</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>History and Social Science</strong></td>
<td>1998</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>208</td>
<td>0%</td>
<td>1%</td>
<td>12%</td>
</tr>
</tbody>
</table>

1998 and 1999 Springfield MCAS Performance Level Results: Grade 10

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td>1998</td>
<td>215</td>
<td>1%</td>
<td>10%</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>216</td>
<td>0%</td>
<td>12%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>1998</td>
<td>208</td>
<td>1%</td>
<td>4%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>208</td>
<td>1%</td>
<td>4%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td>1998</td>
<td>213</td>
<td>0%</td>
<td>6%</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>214</td>
<td>0%</td>
<td>7%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: Massachusetts Department of Education website.
### Figure 4 - Greenfield MCAS Data

#### 1998 and 1999 Greenfield MCAS Performance Level Results: Grade 4

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>227</td>
<td>0%</td>
<td>11%</td>
<td>71%</td>
<td>18%</td>
</tr>
<tr>
<td>1999</td>
<td>230</td>
<td>0%</td>
<td>15%</td>
<td>72%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>231</td>
<td>5%</td>
<td>17%</td>
<td>51%</td>
<td>19%</td>
</tr>
<tr>
<td>1999</td>
<td>231</td>
<td>7%</td>
<td>18%</td>
<td>54%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>235</td>
<td>2%</td>
<td>35%</td>
<td>54%</td>
<td>9%</td>
</tr>
<tr>
<td>1999</td>
<td>237</td>
<td>5%</td>
<td>46%</td>
<td>42%</td>
<td>7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History and Social Science</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 1998 and 1999 Greenfield MCAS Performance Level Results: Grade 8

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>232</td>
<td>2%</td>
<td>40%</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>1999</td>
<td>231</td>
<td>0%</td>
<td>38%</td>
<td>38%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>224</td>
<td>0%</td>
<td>21%</td>
<td>29%</td>
<td>41%</td>
</tr>
<tr>
<td>1999</td>
<td>224</td>
<td>1%</td>
<td>21%</td>
<td>37%</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>224</td>
<td>0%</td>
<td>23%</td>
<td>29%</td>
<td>45%</td>
</tr>
<tr>
<td>1999</td>
<td>222</td>
<td>3%</td>
<td>17%</td>
<td>29%</td>
<td>49%</td>
</tr>
<tr>
<td><strong>History and Social Science</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1999</td>
<td>214</td>
<td>0%</td>
<td>1%</td>
<td>33%</td>
<td>62%</td>
</tr>
</tbody>
</table>

#### 1998 and 1999 Greenfield MCAS Performance Level Results: Grade 10

<table>
<thead>
<tr>
<th></th>
<th>Scaled Score</th>
<th>Advanced</th>
<th>Proficient</th>
<th>Needs Improvement</th>
<th>Failing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English/Language Arts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>228</td>
<td>4%</td>
<td>29%</td>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>1999</td>
<td>224</td>
<td>1%</td>
<td>21%</td>
<td>39%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>224</td>
<td>6%</td>
<td>22%</td>
<td>23%</td>
<td>45%</td>
</tr>
<tr>
<td>1999</td>
<td>221</td>
<td>6%</td>
<td>16%</td>
<td>24%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Science &amp; Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>225</td>
<td>1%</td>
<td>19%</td>
<td>46%</td>
<td>31%</td>
</tr>
<tr>
<td>1999</td>
<td>223</td>
<td>0%</td>
<td>18%</td>
<td>42%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Source: Massachusetts Department of Education website.

51.
Appendix A

Preliminary Questions: General Information and Governance

1) At what level are decisions about new program implementation and administrative or managerial decisions made?

2) How much leeway do individual districts/schools have to make changes in their services delivery systems?

3) Are these new freedoms/restrictions implemented as a result of the Education Reform Act?

4) Are you aware of “effective” programs or changes that other districts/schools have used to boost test scores and are these applicable to Massachusetts?

5) Can you recommend districts that seem to be implementing reform effectively? Ineffectively?

Secondary Questions

1) How have your district operations changed since the Education Reform Act was initiated? Are there new programs that you have implemented? Have you changed your practices?

2) How are you addressing curriculum alignment and professional development?

3) How does your district and individual schools use MCAS test score results?

4) What specific measures are you taking to address the large numbers of students failing the MCAS?

5) What do you see as the critical barriers to succeeding and how can the state/community/district/schools provide more assistance?

6) What is the nature of the relationships with the district and the teachers union? The community? Parents?

Tertiary Questions

1) How have your school operations changed since the Education Reform Act was initiated? Are there new programs that you have implemented? Have you changed your practices? Are these initiatives that are school or district-driven?

2) How are you addressing curriculum alignment and professional development? Is this with assistance from the district?

3) How does your school and individual teachers use MCAS test score results?

4) What specific measures are you taking to address the large numbers of students failing the MCAS?

5) What do you see as the critical barriers to succeeding and how can the state/community/district/schools provide more assistance?
6) What is the nature of the relationships with the district and the teachers union? The community? Parents?
Bibliography


Ehrenberg, Ronald G. Do School and Teacher Characteristics Matter?


Massachusetts Department of Education. Education Reform/MCAS. Website: http://www.doe.mass.edu/mcas/1098facts.html


