How Is Your School District Performing?

A look at

Minuteman

Regional Vocational
Technical School District

2004–2006

EDUCATIONAL MANAGEMENT AUDIT COUNCIL

Office of Educational Quality and Accountability

The five-member Educational Management Audit Council (EMAC) and its agency, the Office of Educational Quality and Accountability (EQA), were established by the Massachusetts Legislature in July 2000 to examine public school districts in the commonwealth. The mission of the EMAC and EQA is to provide independent verification of schools' and districts' efforts to promote higher levels of academic achievement among their students, as measured by the Massachusetts Comprehensive Assessment System (MCAS) tests.

The Office of Educational Quality and Accountability would like to acknowledge the professional cooperation extended to the audit team by the Massachusetts Department of Education; the superintendent of the Minuteman Regional Vocational Technical School District, William F. Callahan; the school department staff; and the member town officials.

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INTRODUCTION

Test scores provide one method of assessing student achievement, but a variety of factors affect student performance. The Office of Educational Quality and Accountability (EQA) was created to examine many of these additional factors by conducting independent audits of schools and districts across the commonwealth. The agency uses these audits to:

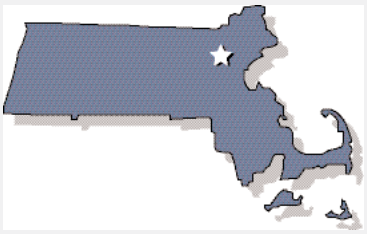
- Provide a comprehensive evaluation of each school district's performance;
- Publish annual reports on selected districts' performance;
- Monitor public education performance statewide to inform policy decisions; and
- Provide the public with information that helps the state hold districts and schools, including charter schools, accountable.

In January 2007, the EQA conducted an independent examination of the Minuteman Regional Vocational Technical School District for the period of 2004–2006. Minuteman serves the towns of Acton, Arlington, Belmont, Bolton, Boxborough, Carlisle, Concord, Dover, Lancaster, Lexington, Lincoln, Needham, Stow, Sudbury, Wayland, and Weston. The EQA identified how students in general and in subgroups were performing on the Massachusetts Comprehensive Assessment System (MCAS) tests. The EQA then examined critical factors that affected student performance in six major areas: leadership, governance, and communication; curriculum and instruction; assessment and evaluation; human resource management and professional development; access, participation, and student academic support; and financial and asset management effectiveness and efficiency.

The review was based on documents supplied by the Minuteman school district and the Massachusetts Department of Education; correspondence sent prior to the EQA's site visit; interviews with representatives from the school committee, the district leadership team, school administrators, and teachers; numerous classroom observations; and additional documents submitted while the EQA team visited the district. The report does not take into account documents, revised data, or events that may have occurred after June 2006. However, district leaders were invited to pr ovide more current information.

Putting the Data in Perspective

Lexington, MA



DISTRICT

Median family income: Range from $66,490 to $181,041
Largest sources of employment: Educational, health, and social services; professional, scientific, and management services

SCHOOLS AND STUDENTS

School committee: 17 members
Number of schools: 1
Student-teacher ratio: 6.4 to 1
Per Pupil Expenditures: $25,563
Student enrollment:
Total: 703
White: 84.6 percent
Hispanic: 4.1 percent
African-American: 8.5 percent
Asian-American: 1.7 percent
Native American: 0.3 percent
Limited English proficient: 0.0 percent
Low income: 15.1 percent
Special education: 50.8 percent

Sources: 2000 U.S. Census and Massachusetts Department of Education.

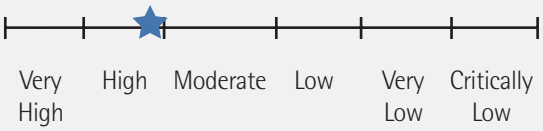
EDUCATIONAL MANAGEMENT AUDIT COUNCIL ACTION

After reviewing this report, the Educational Management Audit Council voted to accept its findings at its meeting on October 1, 2007.

MCAS Performance at a Glance, 2006

	DISTRICT	STATE VOC.
Average Proficiency Index	82	78
English Language Arts Proficiency Index	85	80
Math Proficiency Index	78	77

Performance Rating



The Average Proficiency Index is another way to look at MCAS scores. It is a weighted average of student performance that shows whether students have attained or are making progress toward proficiency, which means they have met the state's standards. A score of 100 indicates that all students are proficient. The Massachusetts DOE developed the categories presented to identify performance levels.

HOW DID STUDENTS PERFORM?

Massachusetts Comprehensive Assessment System (MCAS) Test Results

Students in grades 3–8 and grade 10 are required to take the MCAS tests each year in one or more specified subject areas, including English language arts (ELA), math, and science and technology/engineering (STE). Beginning with the class of 2003, students must pass the grade 10 math and ELA tests to graduate. Those who do not pass on the first try may retake the tests several more times.

The EQA analyzed current state and district MCAS results to determine how well district students as a whole and subgroups of students performed compared to students throughout the commonwealth, and to the state goal of proficiency. The EQA analysis sought to answer the following five questions:

1. Are all eligible students participating in required state assessments?

On the 2006 MCAS tests in ELA and math, eligible students in Minuteman participated at levels that met or exceeded the state's 95 percent requirement.

2. Are the district's students reaching proficiency levels on the MCAS examination?

On average, slightly more than three-fifths of all students in Minuteman attained proficiency on the 2006 MCAS tests, eight percentage points less than the grade 10 statewide average and nine percentage points more than the statewide vocational school district average. More than three-fifths of Minuteman students attained proficiency in English language arts (ELA), and nearly three-fifths of Minuteman students attained proficiency in math.

- Minuteman's average proficiency index (API) on the MCAS tests in 2006 was 82 proficiency index (PI) points, three PI points lower than that of grade 10 students statewide and four PI points higher than that of vocational districts statewide. Minuteman's average proficiency gap, the difference between its API and the target of 100 percent, in 2006 was 18 PI points.
- In 2006, Minuteman's proficiency gap in ELA was 15 PI points, two PI points wider than

MINUTEMAN SCORES COMPARED TO STATE AVERAGES, 2006

Percentage of students at each proficiency level on MCAS

the state's average proficiency gap in grade 10 ELA and five PI points narrower than the gap for vocational school districts statewide. This gap would require an average improvement in performance of nearly two PI points annually to achieve adequate yearly progress (AYP).

- Minuteman's proficiency gap in math was 22 PI points in 2006, five PI points wider than the state's average proficiency gap in grade 10 math and one PI point narrower than the gap for vocational school districts statewide. This gap would require an average improvement of nearly three PI points per year to achieve AYP.

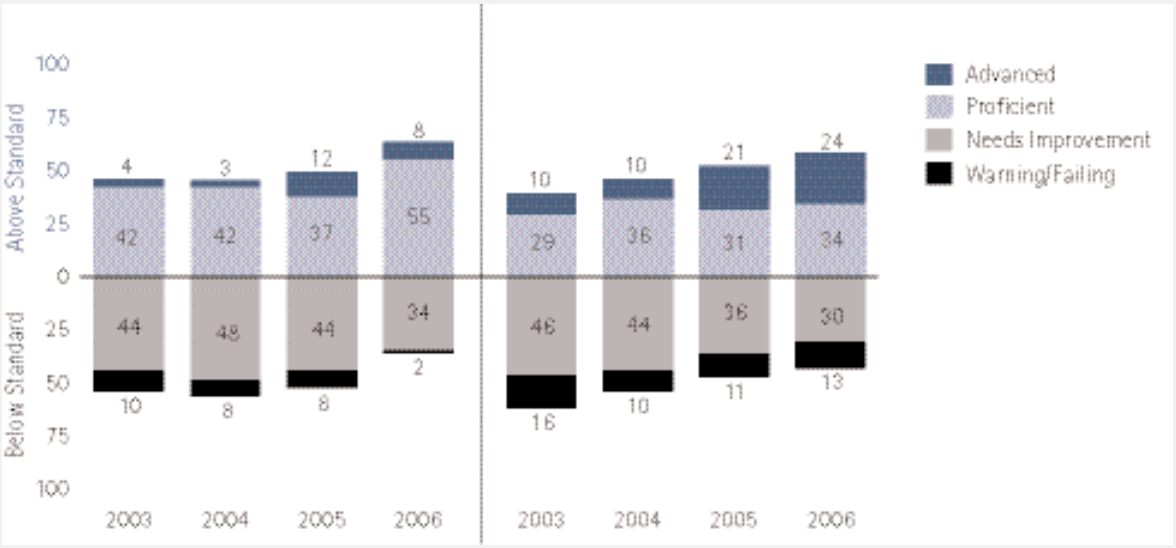
3. Has the district's MCAS test performance improved over time?

Between 2003 and 2006, Minuteman's MCAS performance showed considerable improvement overall, in ELA, and in math.

- The percentage of students scoring in the 'Advanced' and 'Proficient' categories rose by 19 percentage points between 2003 and 2006, while the percentage of students in the 'Warning/Failing' category decreased by six percentage points. The average proficiency gap in Minuteman narrowed from 27 PI points in 2003 to 18 PI points in 2006. This resulted in an improvement rate, or a closing of the proficiency gap, of 31 percent.
- Over the three-year period 2003-2006, Minuteman had strong improvement in ELA, improving at an average of three PI points annually. This resulted in an improvement rate of 39 percent, a rate higher than that required to meet AYP.

MINUTEMAN ELA SCORES COMPARED TO MATH SCORES

Percentage of students at each proficiency level on MCAS

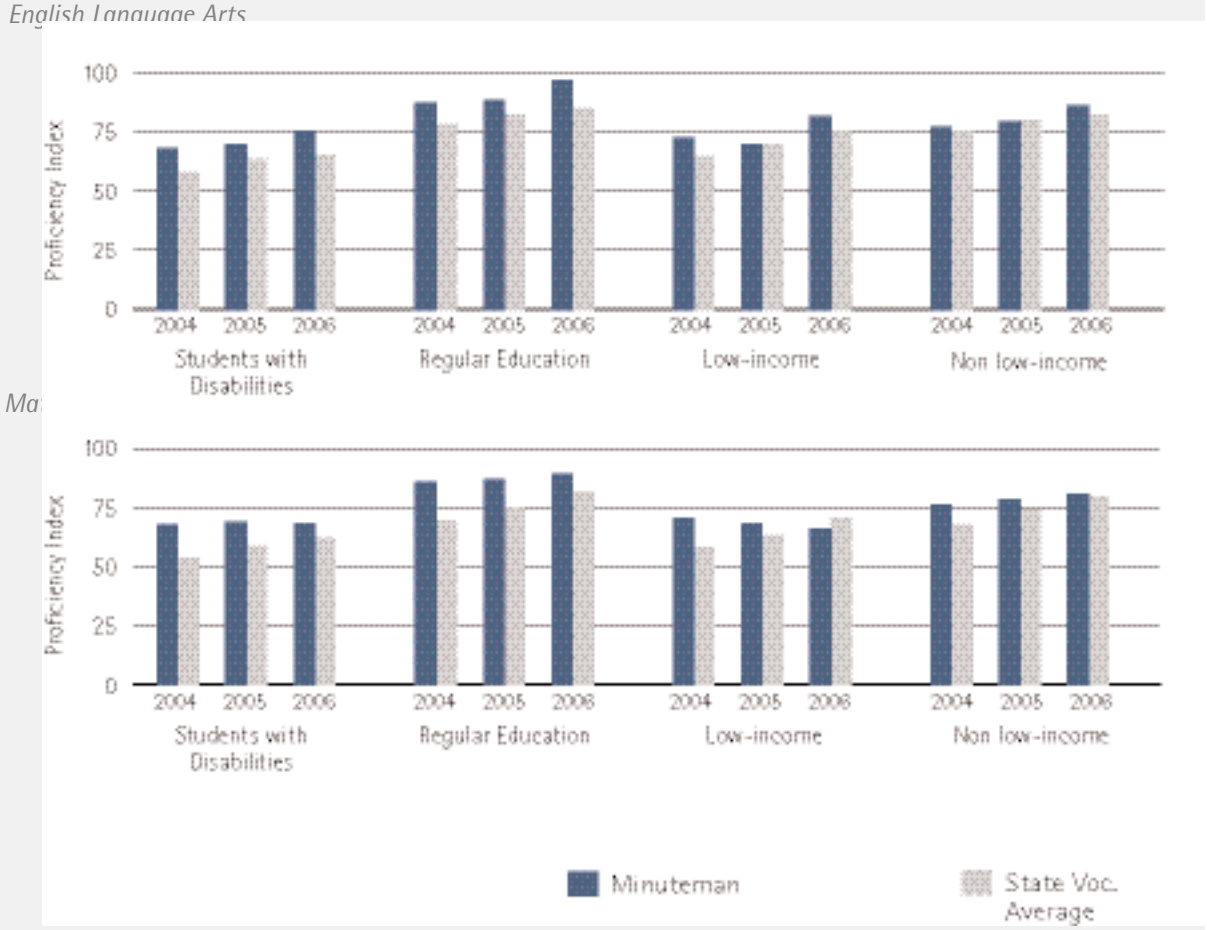


- Math performance in Minuteman also showed improvement during this period, improving at an average of nearly two and one-half PI points annually. This resulted in an improvement rate of 25 percent, a rate slightly lower than that required to meet AYP.

4. Do MCAS test results vary among subgroups of students?

- MCAS performance in 2006 varied substantially among subgroups of Minuteman students. Of the six measurable subgroups in Minuteman in 2006, the gap in performance between the highest- and lowest-performing subgroups was 21 PI points in ELA (regular education students, students with disabilities, respectively) and 23 PI points in math (regular education students, low-income students, respectively).
- The proficiency gaps in Minuteman in 2006 in both ELA and math were wider than the district average for students with disabilities, low-income students (those participating in the free or reduced-cost lunch program), and female students. Two-fifths of students with disabilities attained proficiency, and slightly more than half of the low-income and female students attained proficiency.
- The proficiency gaps in ELA and math were narrower than the district average for regular education students, non low-income students, and male students. For the regular education subgroup, more than four-fifths of the students attained proficiency. For non low-income and male students, slightly more than three-fifths of the students attained proficiency.

MINUTEMAN STUDENTS' IMPROVEMENT OVER TIME, COMPARED TO STATE AVERAGES



5. *Has the MCAS test performance of the district's student subgroups improved over time?*

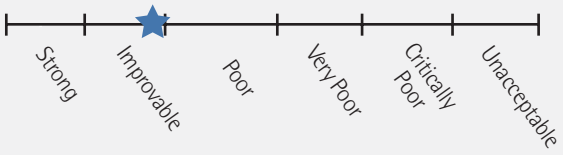
- The performance gap between the highest- and lowest-performing subgroups in ELA widened from 10 PI points in 2003 to 21 PI points in 2006, and the performance gap between the highest- and lowest-performing subgroups in math widened from nine PI points in 2003 to 23 PI points in 2006.
- All student subgroups in Minuteman had improved performance in ELA between 2003 and 2006. The most improved subgroup in ELA was regular education students.
- All student subgroups, with the exception of low-income students, in Minuteman had improved performance in math between 2003 and 2006. The most improved subgroup in math was regular education students.

Performance at a Glance

Management Quality Index

The Management Quality Index is a weighted average of the district's performance on 67 indicators that measure the effectiveness of a district's management system. Minuteman received the following rating:

Performance Rating:



WHAT FACTORS DRIVE STUDENT PERFORMANCE?

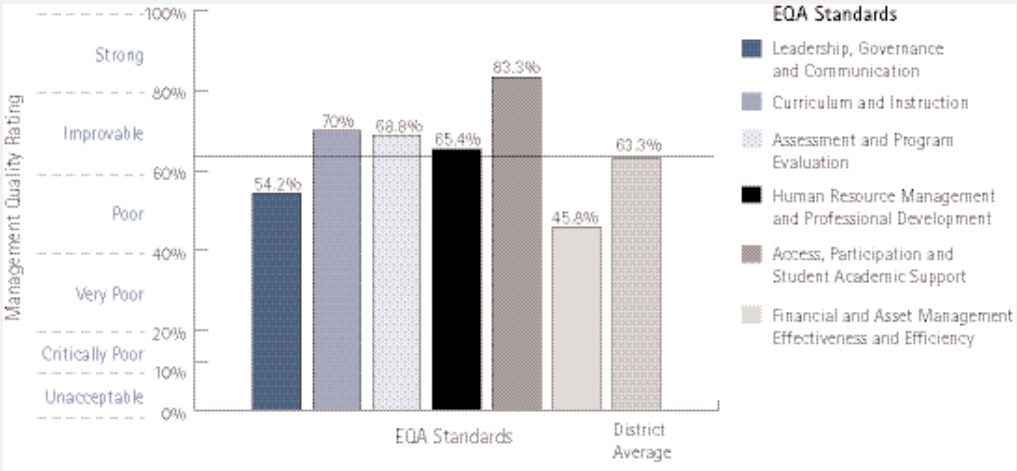
Overall District Management

To better understand the factors affecting student scores on the MCAS tests, the EQA analyzes district performance on 67 indicators in six areas: leadership, governance, and communication; curriculum and instruction; assessment and program evaluation; human resource management and professional development; access, participation, and student academic support; and financial and asset management effectiveness and efficiency. Taken together, these factors are a measure of the effectiveness – or quality – of a district's management system. A score of 100 percent on the Management Quality Index (MQI) means that the district meets the standard and performed at a satisfactory level on all indicators. However, it does not mean the district was perfect.

In 2006, Minuteman received an overall MQI score of 'Improvable' (63.3 percent). The district performed best on the Access, Participation, and Student Academic Support standard, scoring 'Strong.' It was rated 'Poor' on the Leadership, Governance and Communication and Financial Management standards. Given these ratings, the district performed better than expected on the MCAS tests, and during the review period student performance improved in ELA and math. On the following pages, we take a closer look at the district's performance on each of the six standards.

A CLOSER LOOK AT MANAGEMENT QUALITY

Minuteman, 2004–2006



Leadership, Governance, and Communication

Ultimately, the success or failure of district leadership was determined by how well all students performed. As measured by MCAS test performance, Minuteman ranked among the 'High' performing school districts in the commonwealth, with scores that were 'High' in ELA and 'Moderate' in math.

Leadership and Communication

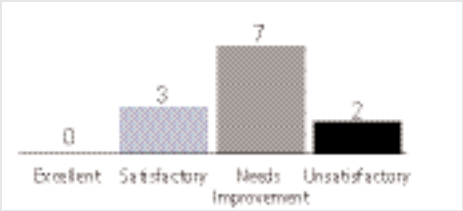
The leadership of the Minuteman school district consisted of the superintendent and the 17-member school committee. The school committee was aware of its responsibilities under the Education Reform Act of 1993, and did not micromanage the operation of the district. The committee exhibited knowledge of student achievement and other relevant data, and used them to make decisions. The school experienced less controversy and urgency during the review period regarding funding than it had in the past; however, high per pupil cost and declining enrollment remained major concerns with the communities and the school committee. The school committee was developing a strategic plan to address the issue of enrollment. Town officials expressed confidence and trust in the assistant superintendent to communicate information and to provide a transparent budget presentation, but some town officials did not have much acquaintance with the superintendent.

A collaborative relationship existed between the school committee and the superintendent; however, the committee, in its evaluation, was critical of the superintendent in some areas. Examples included the superintendent's uneven communications with the school committee, ineffectiveness in delegating responsibilities, and the timeliness of evaluations. The school committee also cited the lack of the development of a capital improvement plan and a vision plan for the school.

Performance at a Glance

Ratings on Performance Indicators

In this area, vocational districts are rated on 12 indicators. Minuteman received the following ratings:



Areas of Strength

- Administration and faculty teamwork supported improvement in student achievement, despite the perception by some staff of a divided administrative leadership.

Areas for Improvement

- The district had no strategic plan, the School Improvement Plan (SIP) was not standards based, and the school did not use student achievement data to measure SIP goals.
- No district policy or systematic practice existed that ensured a consistent use of data to inform decision-making related to improving student achievement or developing the school budget.
- Administrators in the district, including the superintendent, did not receive annual evaluations, and the superintendent did not hold administrators accountable for student achievement results in their evaluations.
- The school did not have a capital improvement plan, and the superintendent estimated that the school needed $8 million to update and repair the facility.

Planning and Governance

The delegation of educational and operational leadership at the senior administrative team level was ineffective. A divided administration existed between the superintendent and senior administrators, according to interviewees. The senior administrative team experienced a loss of credibility and confidence among some staff. Unclear senior administrator authority restricted the leadership's ability to respond to issues, communicate effectively, and share information. According to interviewees, administrators had responsibility without financial authority, and had an ineffective performance evaluation process that did not allow for a timely response to evaluation comments.

The district consisted of one school, which had a School Improvement Plan (SIP). Many interviewees did not see the SIP as the driving force for improvement in educational programs. A staff-driven process of task forces and committees to address school improvement initiatives and in-service development was the primary method used to promote school improvement. The generation, collection, and analysis of student achievement data occurred within the district. The use of the results of the analysis of student achievement data influenced decision-making regarding the need for programs and services, although the decision-making process was decentralized and no district policy or systematic practice was in place that ensured consistent data-driven decisions. The school did not use student achievement data to develop the budget.

Curriculum and Instruction

The Minuteman school district faced some challenges in the areas of effective curriculum development and instructional practice — essential elements of efforts to improve student performance.

Aligned Curricula

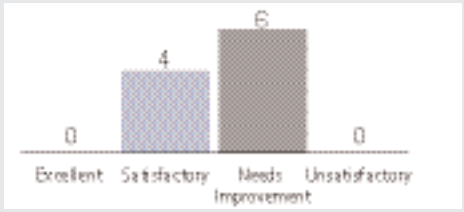
There was wide variation within the school regarding the extent of academic curriculum alignment to the state frameworks and the extent of horizontal and vertical curriculum alignment in academic areas. The school aligned vocational curricula with state and industry standards, and formative and summative assessments measured student achievement against those standards. In math and science, there was some alignment with state standards, but alignment was limited in English language arts (ELA). In science, two-year course sequences helped achieve vertical, but not horizontal, alignment. In math, there were common course outlines, final examinations, and common textbooks. However, in ELA there was minimal vertical alignment, and teachers designed their own assessments. Courses had limited alignment with other courses in a content area, and multiple sections of individual courses seldom used common assessments to measure student achievement of course objectives. Only in math did academic area teachers and the senior teacher/department head have the opportunity to establish the extent to which individual students had achieved the course objectives.

The school made limited use of formative and summative assessments to measure the effectiveness of curriculum delivery. The school did not have a systematic and institutionalized process of curriculum revision, and revised the curriculum when achievement data indicated the need.

Performance at a Glance

Ratings on Performance Indicators

In this area, districts are rated on 10 performance indicators. Minuteman received the following ratings:



Areas of Strength

- In the vocational areas, the school had a vertically and horizontally aligned standards-based curriculum, complete with objectives and formative and summative assessments to measure student progress.
- The school had in place many practices that demonstrated high expectations for regular education students, including encouraging them to obtain national certification, enter Skills USA competitions, and complete senior projects.
- The school revised the curriculum content in academic content areas to provide instructional support to prepare students to pass MCAS tests.

Areas for Improvement

- In academic areas, teachers had limited access to formative and summative assessments.
- The school did not implement a regular process for review and revision of curricula, reviewing curricula only when data suggested the need.
- Curriculum alignment was problematic in academic areas, as individual teachers developed curriculum for specific courses with little reference to courses that preceded or followed them.

The variations in alignment of curricula in academic areas reflected informal and unstructured curriculum leadership at the school. In vocational areas, division coordinators monitored delivery of the curriculum, but in academic areas curriculum leadership was a collaborative process among the principal, lead teachers, senior teachers, and department heads. A review of a random sample of teacher evaluations showed that the district did not hold teachers accountable for student achievement.

Effective Instruction

The school recognized the need to improve student performance on the MCAS tests and designed courses and promoted classroom instruction that addressed the needs of lower level students. The school placed special education students with content-certified teachers for the first time, but expectations for the achievement of some special education students were limited given that they received their instruction in separate rather than regular education settings. Interviewees indicated they expected special education students' flat performance to persist.

The school implemented a number of instructional strategies and made many changes in the allocation of instructional time as a result of analysis of student data. Strategies included the Collins Writing Program to assist with open-response questions, use of Focus Correction Area charts, and professional development in reading across the curriculum and the development of rubrics for writing. The school established the mathematics integration lab for grade 9-10 students needing MCAS support, combined Algebra and Geometry for lower performing students, and created a two-year sequence of Biology and Chemistry courses. Instructional technology, while widely available and used especially in the vocational areas, was not state of the art and needed updating.

The EQA team conducted 28 random classroom observations and noted that teachers generally displayed effective instructional practices. The senior teachers/department heads and division coordinators provided instructional leadership and used professional development as a method to implement instructional changes in the classrooms.

Assessment and Program Evaluation

Student assessment data include a wealth of information for district and school leaders on strengths and weaknesses in the local system, providing valuable input on where they should target their efforts to improve achievement.

Student Assessment

In the academic programs, school leaders and teachers made use of MCAS tests, the Metropolitan Achievement Test (MAT), the Learning Styles Inventory (LSI), and informal analyses of formative and summative classroom assessments to understand student achievement. The school used data from the MAT to understand the strengths and weaknesses of incoming students, to place students in grade 9 English, mathematics, and science classes and levels, and to assess grade-level progress in grades 9 and 11.

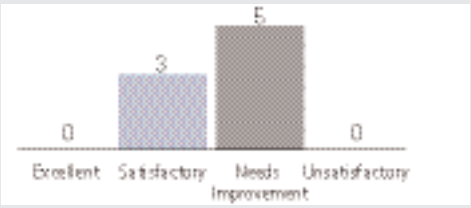
The Data Analysis and Strategic Planning Project's (DASPP) Educational Research, Testing and Evaluation Consultants (ERTEC) also analyzed special education students' MCAS test results as part of its examination and report, MAT and MCAS Results for the Class of 2009. The consultants' report included a detailed item analysis for MCAS test results in ELA and math with accompanying major challenges, suggested strategies, and possible teacher resources and professional development to improve special education students' achievement.

All teachers received a student profile sheet that categorized LSI ratings, standardized test results, and special education accommodations, as needed, and administrators used the classroom-based composite bar graph indicating the learning style profile of the whole class to facilitate planning and decision-making in curriculum, pedagogy, and assessment. Using these data, senior teachers/department heads and teachers identified weaknesses and made modifications to curriculum, adjusted staff assignments, planned and implemented professional development, and allocated time and resources.

Performance at a Glance

Ratings on Performance Indicators

In this area, districts are rated on 8 performance indicators. Minuteman received the following ratings:



Areas of Strength

- The school targeted increased participation in senior portfolios before the review period, and since the 1999-2000 academic year district "benchmark" reports indicated that the percentage of seniors in vocational areas completing portfolios increased from 61 to 100.
- The school consistently used benchmarks in the form of competencies in the vocational technical majors to assess students' progress and success in meeting industry-based vocational and technical standards.

Areas for Improvement

- The school lacked a regular, coordinated, documented, internal process to examine academic programs. External audits included a Title I review and a Coordinated Program Review.
- In the academic programs, school leaders developed percentage benchmarks to improve MCAS scores, but did not develop or use local academic benchmarks to measure student achievement and progress.

Although students took mid-year and final exams, only the mathematics department used common final exams. Other than the use of state frameworks, academic programs did not establish benchmarks to define learning expectations and to measure progress. In the vocational technical majors, division coordinators, senior teacher/department heads, and teachers consistently monitored student progress toward meeting competency expectations defined by Master Performance Objectives (MPOs), which were determined by external industry-based standards.

Program Evaluation

The district had no policies or procedures to conduct regular and systematic internal audits of academic programs. The distinction between data analysis and program analysis was consistently unclear in the district, and the analysis of MCAS and MAT data substituted for program evaluation. Informally, academic departments examined their programs by relying on analyses of MCAS test results, by looking at grade-level movement conveyed by MAT retests, and by unstructured reviews of limited formative and summative classroom-based assessments. These informal program reviews informed priority setting, program changes, teaching practice, and resource allocation.

The school committee requested an internal report of the technical program, which the department submitted in 2005. That report detailed the program's attributes and accomplishments, but did not contain any analysis of student progress or achievement other than enrollments and placements. The school committee requested a similar internal review of the vocational program in the final year of the review period and that review is ongoing.

External audits occurred when the state or federal government required them, and the school's last New England Association of Schools and Colleges (NEASC) accreditation occurred in 2001. For the vocational technical divisions, advisory committees comprised of experienced professionals in the fields, parents, and students informally reviewed and made recommendations to improve curriculum, equipment purchases, and instruction.

Human Resource Management and Professional Development

To improve student academic performance, school districts must recruit certified teaching staff, offer teacher mentoring programs and professional development opportunities, and evaluate instructional effectiveness on a regular basis in accordance with the provisions of the Education Reform Act of 1993.

Hiring Practices and Certification

Minuteman had hiring practices during the review period, including a detailed human resources handbook and a written personnel policy. The superintendent had to approve all new positions, and administrators had to submit job descriptions for them. The personnel policy stated that unless a special need existed, the school should not hire teachers above a specific step level.

Interviewees indicated that the school attracted teachers with its supportive environment, professional development opportunities, tuition reimbursement, good benefits, and promotional advancement, including the opportunity to progress from teacher to senior teacher to division coordinator.

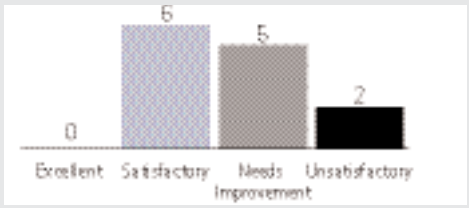
A review of licensing information provided by the school showed that the district did not file waivers when it hired unlicensed teachers. Teacher licensure information provided by the school showed that 100 of 106 professional educators and six of eight administrators held current Massachusetts licenses. The assistant superintendent had obtained licensure in December 2006, after the review period.

The school did not have a mentoring plan during the review period, but implemented one for the 2006-2007 school year because of the number of new employees the school hired due to retirements; 17 personnel retired in 2006. The district compensated five teachers $2,500 each to mentor 12 new teachers.

Performance at a Glance

Ratings on Performance Indicators

In this area, districts are rated on 13 performance indicators. Minuteman received the following ratings:



Areas of Strength

- The professional development program was informed by the instructional program content; student, teacher, and administrator needs as indicated by teacher surveys; research-based practices; and student achievement data primarily from the MCAS tests and the MAT.

Areas for Improvement

- Personnel policy requirements put financial limitations on hiring teachers, unless a special need existed.
- Minuteman hired some unlicensed teachers and did not file waivers with the Department of Education. The district provided unlicensed personnel access to professional development and mentoring services.

Professional Development

The school provided professional development during the review period, and determined professional development needs based on student achievement, teacher surveys, and research-based practices. The school used a brain-based learning model and provided professional development offerings for teachers to learn how to develop higher order thinking skills. The school also provided professional development on improving data analysis skills so teachers could understand achievement test results and improve teaching skills. Senior teachers and directors monitored implementation of professional development programs in the classroom for the John Collins Writing Program, SmartBoard training through the Perkins grant, and Literacy Across the Curriculum. Professional development in the integration of technology into the classroom trained teachers to use SmartBoards and digital cameras and videos, and gain expertise in a number of educational software programs such as SuccessMaker and WebQuest. In addition, teachers worked to develop content lessons and strategies that would reinforce knowledge and skills across curricular areas and across the academic and vocational and technical divisions of the school.

Professional development received substantial funding during the review period, and the number of teachers remained stable in spite of declining enrollment. Minuteman expended approximately $171,000 for professional development in 2004, approximately $94,000 in 2005, and approximately $138,000 in 2006, including Perkins grant funds. A review of the teacher contract showed that the school provided graduate course reimbursement.

Evaluation

Minuteman did not conduct either teacher or administrator evaluations in compliance with M.G.L. Chapter 71, Section 38, and did not hold staff accountable for student achievement results. The superintendent did not evaluate administrators annually. A review of six personnel files of district administrators revealed that during the review period one administrator received an annual performance evaluation for each year of employment.

A review of the evaluations of a random sample of 34 professional and non-professional status teachers showed inconsistent alignment with M.G.L. Chapter 71, Section 38, in that some evaluators did not perform a summative evaluation every two years for a teacher with professional status or every year for a teacher with non-professional status. Members of the same bargaining unit conducted teacher evaluations, and teachers could conduct self-evaluations. EQA examiners found some classroom observation evaluations to be detailed and prescriptive.

Access, Participation, and Student Academic Support

Students who are at risk of failing or dropping out need additional support to ensure that they stay in school and achieve proficiency.

Services

Minuteman offered a panoply of support services for students at risk. The school developed student support teams to identify students who may need services and support and to focus on early at-risk indicators, such as chronic absenteeism or discipline problems. The school provided academic support programs such as MCAS remediation courses and special education services. The school regularly reviewed and disaggregated achievement data to make program modifications, but this was a decentralized process, conducted at the department, division, or teacher level, encouraged by the school through the Total Quality Management process.

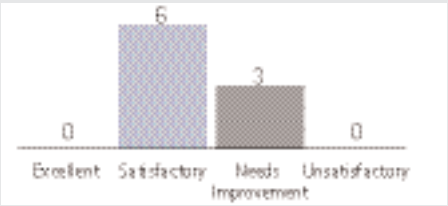
Minuteman also provided Title I services, and DOE data indicated that approximately 15 percent of the students met the low-income standard required for eligibility. The district developed Individual Student Success Plans (ISSPs) for students who had not passed the MCAS tests and developed Individualized Education Programs (IEPs) for special education students. The school had a curriculum accommodation plan to help teachers develop strategies to assist regular education students before the students required referrals for special education services. Although the percentage of Minuteman students who attained proficiency on the MCAS tests improved from 42 percent in 2003 to 61 percent in 2006, in 2006 the school did not meet adequate yearly progress (AYP) for special education students in ELA or mathematics.

The school had four course levels noted in the program of studies: Level 1-honors, Level 2-college preparation, Level 3-standard, and Level 4-support. Approximately 51 percent of the school enrollment consisted of special education students, many determined to be below grade level according to test results. During the review period, some special education stu-

Performance at a Glance

Ratings on Performance Indicators

In this area, vocational districts are rated on 9 indicators. Minuteman received the following ratings:



Areas of Strength

- Minuteman offered honors courses and enrolled approximately 20 percent of students with disabilities in those courses.
- Minuteman created a safety net of staff, including counselors, teachers, administrators, the school social worker, nurse, and psychologist, to prevent and minimize dropouts.

Areas for Improvement

- In 2006, the school did not meet AYP for special education students in ELA or math, and males substantially outperformed females in ELA and math.
- The school did not have an in-school suspension room staffed on a full-time basis, so students were unsupervised at times, and the school had difficulty providing trade and technology work for vocational students suspended in school.

dents who had tested well below grade level received substantially separate services in Level 4 courses from a certified special education teacher; however, the teacher did not have certification to teach in the content areas, such as ELA, math, and science. The school changed this model so that, beginning in 2006-2007, these students would receive services in a co-taught classroom. Special education students populated many Level 3 courses. The school did not offer Advanced Placement (AP) courses, but special education students comprised almost a quarter of the honors enrollment and participated in the school's vocational co-op program.

Attendance and Dropout Services

The school had an attendance rate of 92.8 percent in 2005-2006, which was below the statewide rate of 93.8 percent. The school had a high chronic absenteeism rate, averaging 21.1 percent in 2006. Each student missed 11.9 days of school in 2006, on average, and female students had a chronic absenteeism rate of 28.4 percent. The male student chronic absenteeism rate was 17.6 percent. Interviewees indicated the school needed a more consistent application of the consequences associated with absence from school. The teacher absenteeism rate was relatively low, at 7.1 days on average.

DOE data showed that the school had a four-year graduation rate of 91.8 percent, and in that cohort of 158 students, 2.5 percent dropped out. The school provided the EQA with examples of specific practices used to prevent or minimize dropping out, including allowing failing students to make up credit, working with sending towns to set up alternative educational settings, allowing a student a second chance after temporarily dropping out, having a student speak to his or her individual town's district administrators about graduation requirements, which might differ from those at Minuteman, and creating early graduation plans for students due to factors such as age, pregnancy, and family situations.

Discipline

During the review period, the school had out-of-school suspension rates that were almost double those of the state. However, the school had limited in-school suspension resources and could not ensure that the in-school suspension room had full-time staffing. In addition, interviewees indicated that the school found it difficult to provide vocational work for students suspended in school during vocational week. During the three-year review period, the school had almost 500 incidents of in- or out-of-school suspension. The school had a school resource officer, and the assistant principal or the dean of students had responsibility for discipline issues. The school also had a late detention process and implemented "Walk About Staff Duty" to diffuse potential problems among students.

Financial and Asset Management Effectiveness and Efficiency

Effective districts develop budgets based on student needs, submit financial documentation in a timely fashion, employ staff with MCPPO credentials, and ensure that their facilities are well maintained.

Budget Process

The superintendent created the budget with minimal input and follow-up from stakeholders, based on a review of previous years' actual expenditures, projected program enrollment, and a percentage increase acceptable to the school committee and the member towns. Minuteman enrolled a significant number of out-of-district students, and approximately 50 percent of the enrollment consisted of special needs students. The district relied heavily on out-of-district Chapter 74 tuitions. The assistant superintendent prepared the assessments to the district towns based on the requirements of net school spending (NSS) and the district agreement. The school assessed the communities an additional charge of $4,250 for special needs students.

During the review period, the district did not conduct formal evaluations of programs and practices to determine cost effectiveness. Minuteman's accounting system did not provide adequate forecast mechanisms and control procedures, the district did not competitively procure an independent financial auditing service every five years, and it had not prepared and submitted external audit reports in a timely manner. The business manager's MCPPO certification lapsed in 2006; the business manager stated that she received a one-year verbal extension from the Office of the Inspector General.

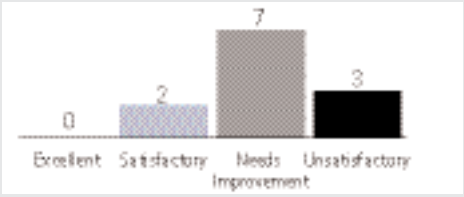
Financial Support

According to the superintendent and town officials, the member towns provided sufficient financial resources for a quality educational system. The district exceeded the required NSS for each of the years under review. The communities paid an average of 67.7, 63.8, and 71.5 percent above the required minimum contribution during fiscal years 2004, 2005, and 2006,

Performance at a Glance

Ratings on Performance Indicators

In this area, vocational districts are rated on 13 indicators. Minuteman received the following ratings:



Areas of Strength

- Minuteman exceeded net school spending (NSS) requirements during the review period. The school maintained a low student-teacher ratio and small class sizes, which contributed to the high per pupil cost of $21,364 in FY 2006.

Areas for Improvement

- Minuteman did not have a five-year capital equipment and maintenance plan that met the needs of the school and the students, and the most recent budgets included funding for minimum maintenance activities.
- The district did not have a formal process for analyzing formative and summative assessment data to ensure that adequate resources were budgeted for improving student achievement.
- Minuteman used an outdated financial accounting software package that could not provide all required financial reports.

respectively. In interviews, school administrators and faculty stated that the annual budget was adequate for the educational needs of the students. Advisory committee members stated that recommendations for program enhancement did not receive approval and that funding in several shop areas was inadequate. The budget contained a modest increase of 2.3 percent in FY 2006, while the assessment to towns increased substantially.

The district's FY 2005 per pupil cost of $21,364 exceeded the state average by $12,268. The school attributed high per pupil costs to low student-teacher ratios, small class sizes, and administrative costs, in addition to substantial increases in fixed costs such as utilities, health insurance, and contractual obligations. The superintendent reported that the assessments reflected a drop in non-resident tuition, a drop in excess and deficiency funds, and level funding of transportation. In a report to the school committee on the FY 2006 budget, the superintendent noted a 7.7 percent increase in overall enrollment, a 7.5 percent increase in special needs students requiring services, and an increase of 7.0 percent in in-district enrollment during the years under review. Information from the DOE showed a decline in total enrollment from 727 students in FY 2005 to 703 in FY 2006; town officials indicated concern regarding the decline in enrollment. According to the FY 2005 audit report, actual district expenditures were $183,000 less than the final budget approved by the school committee.

Facilities

The school, which opened in 1976, was reconfigured from an open room concept to a traditional layout. This change reduced the effectiveness of the HVAC system. The district had not updated the energy management plan in over 20 years. The district did not have an acceptable facility maintenance program due to a lack of adequate capital building improvement funds. Funding for capital maintenance in FY 2006 was $150,000. Interviews with town officials, advisory committee members, teachers, and administrators revealed a need to renovate or build a new facility conducive to student achievement. The superintendent estimated the school needed over $8 million for modernization and upgrades. A walk-through of the school revealed an ongoing need for roof repairs and a lack of adequate storage space; however, examiners found the school well maintained and clean.

Safety

Although the district had a crisis management policy that ensured the safety of the students during emergencies, the school lacked adequate electronic monitoring and safety procedures for entering the building. The school also lacked an adequate identification badge system. It did have a crisis plan which the school committee approved in 2006.

CONCLUSION

The Minuteman Regional Vocational Technical School District was marked by student achievement that was 'High' in ELA and 'Moderate' in math on the MCAS tests. On average, slightly more than three-fifths of all students in Minuteman attained proficiency on the 2006 MCAS tests. The EQA gave the district a Management Quality Index rating of 'Improvable,' with the highest score on the Access, Participation, and Student Academic Support standard, and the lowest on the Financial Management standard.

Minuteman faces many challenges and changes. Although many factors affect per pupil costs, Minuteman's are the highest in the state and among vocational schools, averaging over $20,000. The school attributed the costs to low student-teacher ratios, small class sizes, increased administrative and fixed costs, and high special education enrollment. EQA examiners toured the school during the site visit, and determined that it will need major renovations, including roof and other repairs, and an adequate security system, but the superintendent estimated that the cost of the renovations would total $8 million. At the same time, Department of Education data indicated that enrollment decreased from 715 students in 2003-2004 to 653 students in 2006-2007. Town officials expressed concern about the convergence of these issues. The school committee was developing a strategic plan to address enrollment, but increasing it will require the school to aggressively market services to students and their parents in surrounding towns.

The superintendent will leave the district at the end of the 2006-2007 school year. In its evaluation of the superintendent, the school committee cited inconsistent communication, ineffective delegation of administrative duties, and the lack of progress in developing a capital improvement plan. Administrators and faculty members described the operational management of the district as divided. Minuteman had no strategic plan, and the School Improvement Plan did not include a mission statement or set goals and timelines based on student achievement results. After the review period, the district developed departmental improvement plans, complete with goals based on data, to facilitate monitoring of instructional progress.

The district provided more coordinated curriculum alignment and leadership in vocational than in academic areas. In vocational areas, the school aligned curricula with state and industry standards, and formative and summative assessments measured student achievement against those standards. In academic areas, there was some alignment with state standards in math and science, but not much in ELA. Division coordinators monitored delivery of the vocational curriculum, but academic curriculum leadership was a collaborative process among the principal, lead teachers, senior teachers, and department heads.

In 2006, Minuteman did not meet AYP for special education students in ELA or math. Overall, for all students tested during 2003-2006, test scores improved. In 2003, 42 percent of all students attained proficiency, while in 2006, 61 percent had attained proficiency. The district recognized the need to improve MCAS performance, and generated student achievement data from such assessments as the Metropolitan Achievement Tests, Learning Styles Inventory, and MCAS tests. It also hired a consultant, the Data Analysis and Strategic Planning Project, to provide item analysis of 2001-2005 MCAS test results, both aggregated and disaggregated for the special education subgroup. District administrators cited the implementation of the Collins Writing Program, reading strategies, and the review of career programs in science and technology as examples of data-driven decision-making.

The EQA team conducted 28 random classroom observations and noted that teachers generally displayed effective instructional practices. The district provided extensive professional development training and graduate course reimbursement. However, it did not conduct teacher or administrator evaluations in compliance with the education reform law, and did not hold teachers or administrators explicitly accountable for student achievement results. Principals and senior teachers/department heads did not visit classrooms to monitor curriculum delivery, and the principal did not participate in the teacher evaluation process.

DOE data indicated that 15 percent of the enrollment met the Title I low-income standard. Approximately 51 percent of the school enrollment consisted of special education students, many performing below grade level on MCAS tests. As of 2006-2007, these students received services in a co-taught classroom. Special education students formed almost a quarter of the honors enrollment and participated in the school's vocational co-op program.

Interviewees indicated the school needed a more consistent application of the consequences associated with absence from school. During the review period, the school had a high chronic absenteeism rate, averaging 21.1 percent in 2006. Additionally, the school reported a rate of out-of-school suspension that was almost double the state rate, with almost 500 incidents of in- or out-of-school suspension in three years. Minuteman offered limited in-school suspension resources, though it did offer many support services to minimize the dropout rate. The school also provided academic support programs such as MCAS remediation courses and special education services, Title I services, Individual Student Success Plans, IEPs, and a curriculum accommodation plan to help teachers develop instructional strategies.

APPENDIX A: EQA'S DISTRICT EXAMINATION PROCESS

EQA's examination process provides successively deeper levels of information about student performance. All school districts receive an MCAS data review annually, but they do not all receive the full examination every year.

Based on the MCAS results, Educational Management Audit Council (EMAC) policy, and random sampling, approximately 60 districts statewide received a site review. Still other districts — those that do not meet certain performance criteria set by the state Department of Education — received an even more detailed review.

Data-Driven Assessment

Annually, the DOE and EQA's staff assess each public school district's results on the Massachusetts Comprehensive Assessment System (MCAS) tests to find out how students are performing. This review seeks to answer five basic questions:

1. Are the district's students reaching proficiency levels on MCAS?
2. Do MCAS test results vary among subgroups of students (such as minority and low-income students and students with disabilities)?
3. Has the district's MCAS test performance improved over time?
4. Has the MCAS test performance of the district's student subgroups improved over time?
5. Are all eligible students participating in required state assessments?

Standards-Based Examination

Districts with MCAS results that fall within certain thresholds of performance, particularly districts that score below average, may be selected to receive a site review. This review seeks to provide a more complete picture of why the district is performing at that level, examining district management, planning, and actions and how they are implemented at the building level. It focuses in particular on whether the district uses data to inform its efforts.

The report analyzes district performance in six major areas: leadership, governance, and communication; curriculum and instruction; assessment and program evaluation; human resource management and professional development; access, participation, and student academic support; and financial and asset management effectiveness and efficiency. EQA examines a total of 67 indicators to assess whether the district is meeting the standards and provides a rating for each indicator.

APPENDIX B: EXPLANATION OF TERMS USED IN EQA REPORTS

ABA: Applied Behavioral Analysis

ADA: Average Daily Attendance

ALT: MCAS Alternative Assessment

API: Average Proficiency Index (of the English Language Arts Proficiency Index and Math Proficiency Index for all students)

ATA: Accountability and Targeted Assistance

AYP: Adequate Yearly Progress

CAP: Corrective Action Plan

CBM: Curriculum-Based Measures

CD: Competency Determination — the state's interim Adequate Yearly Progress indicator for high schools based on grade 10 MCAS test passing rates

CMP: Connected Math Program

CORI: Criminal Offender Record Information

CPI: Composite Proficiency Index — a 100-point index combining students' scores on the standard MCAS and MCAS Alternative Assessment (ALT)

CPR: Coordinated Program Review — conducted on Federal Education Acts by the DOE

CRT: Criterion-Referenced Test

CSR: Comprehensive School Reform

DCAP: District Curriculum Accommodation Plan

DIBELS: Dynamic Indicators of Basic Early Literacy Skills

DIP: District Improvement Plan

DOE: Department of Education

DPDP: District Professional Development Plan

DRA: Developmental Reading Assessment

ELA: English Language Arts

ELL: English Language Learners

EPI: English Language Arts Proficiency Index

ESL: English as a Second Language

FLNE: First Language Not English

FRL/N: Free and Reduced-Price Lunch/No

FRL/Y: Free and Reduced-Price Lunch/Yes

FTE: Full-Time Equivalent

FY: Fiscal Year

Gap Analysis: A statistical method to analyze the relationships between and among district and subgroup performance and the standard of 100 percent proficiency

GASB: Government Accounting Standards Board

GMADE: Group Math Assessment and Diagnostic Evaluation

GRADE: Group Reading Assessment and Diagnostic Evaluation

GRADU: The graduation yield rate for a class four years from entry

IEP: Individualized Education Program

Improvement Gap: A measure of change in a combination of the proficiency gap and performance gap between two points in time; a positive improvement gap will show improvement and convergence between subgroups' performance over time

IPDP: Individual Professional Development Plan

IRIP: Individual Reading Improvement Plan

ISSP: Individual Student Success Plan

LASW: Looking at Student Work

LEP: Limited English Proficient

MASBO: Massachusetts Association of School Business Officials

MASC: Massachusetts Association of School Committees

MASS: Massachusetts Association of School Superintendents

MAVA: Massachusetts Association of Vocational Administrators

MCAS: Massachusetts Comprehensive Assessment System

MCAS-Alt: Alternative Assessment — a portfolio option for special needs students to demonstrate proficiency

MCPPO: Massachusetts Certified Public Purchasing Official

MELA-O: Massachusetts English Language Assessment-Oral

MEPA: Massachusetts English Proficiency Assessment

MPI: Math Proficiency Index

MQI: Management Quality Index — an indicator of the relative strength and effectiveness of a district's management system

MUNIS: Municipal Information System

NAEYC: National Association for the Education of Young Children

NCLB: No Child Left Behind

NEASC: New England Association of Schools and Colleges

NRT: Norm-Referenced Test

NSBA: National School Boards Association

NSS: Net School Spending

Performance Gap: A measure of the range of the difference of performance between any subgroup's Proficiency Index and another subgroup's in a given district

PI: Proficiency Index — a number between 0–100 representing the extent to which students are progressing toward proficiency

PIM: Performance Improvement Management

PQA: Program Quality Assurance — a division of the DOE responsible for conducting the Coordinated Program Review process

Proficiency Gap: A measure of a district or subgroup's Proficiency Index and its distance from 100 percent proficiency

QRI: Qualitative Reading Inventory

Rate of Improvement: The result of dividing the gain (improvement in achievement as measured by Proficiency Index points) by the proficiency gap

SAT: A test administered by the Educational Testing Service to 11th and 12th graders

SEI: Sheltered English Immersion

SIMS: Student Information Management System

SIOP: Sheltered Instruction Observation Protocol

SIP: School Improvement Plan

SPED: Special Education

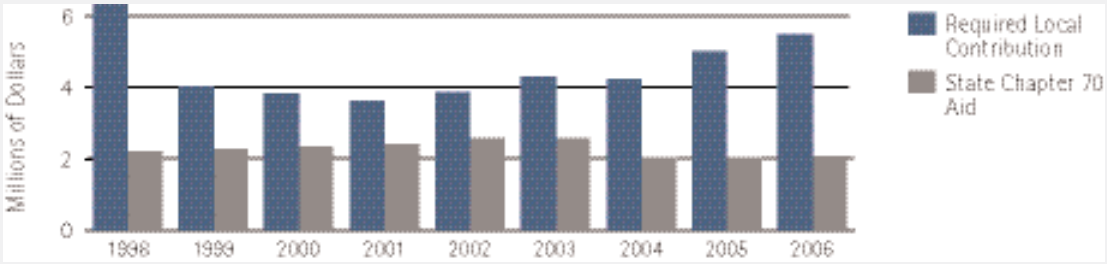
STE: Science and Technology/Engineering

TerraNova: K–12 norm-referenced test series published by CTB/McGraw-Hill

APPENDIX C: STATE AND LOCAL FUNDING, 1998–2006

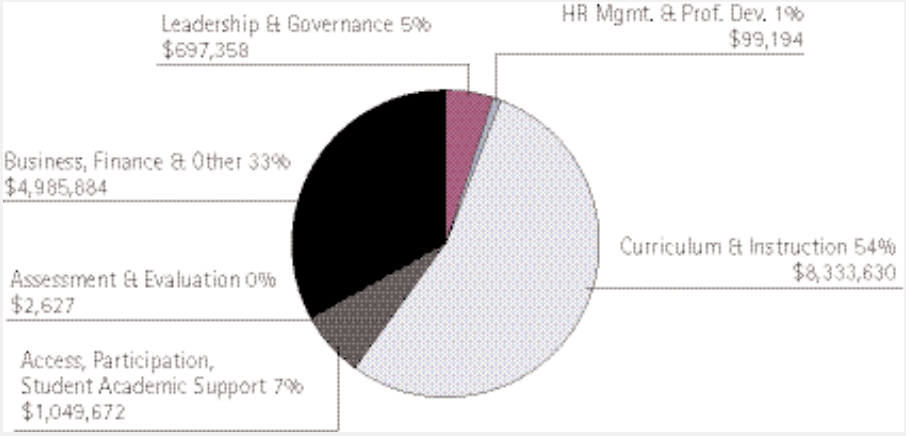
A school district's funding is determined in part by the Chapter 70 program — the major program of state aid to public elementary and secondary schools. In addition to supporting school operations, it also establishes minimum requirements for each municipality's share of school costs. The following chart shows the amount of Minuteman's funding that was derived from the state and the amount that the towns were required to contribute. The district exceeded the state net school spending (NSS) requirement in each year of the review period. From FY 2004 to FY 2006, NSS increased from $10,025,105 to $11,291,162; Chapter 70 aid increased from $2,052,550 to $2,078,300; the required local contribution increased from $4,236,432 to $5,495,202; and the foundation enrollment increased from 443 to 515. Chapter 70 aid as a percentage of actual NSS decreased from 21 to 18 percent over this period. From FY 2004 to FY 2005, total curriculum and instruction expenditures as a percentage of total Schedule 1 NSS reported in the End of Year Pupil and Financial Report decreased from 64 to 63 percent.

WHERE DOES THE FUNDING FOR MINUTEMAN SCHOOL DISTRICT COME FROM?



HOW IS THE FUNDING FOR MINUTEMAN SCHOOL DISTRICT ALLOCATED?

FY05 Expenditures By EQA Standards (With City/Town Charges)



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