

*How Is Your  
School District  
Performing?*



*A look at*  
**Plymouth**  
Public Schools

2004–2006



EDUCATIONAL MANAGEMENT AUDIT COUNCIL  
*Office of Educational Quality and Accountability*

## **EDUCATIONAL MANAGEMENT AUDIT COUNCIL**

Maryellen Donahue, Chairwoman

Irwin Blumer

Ethan d'Ablemont Burnes

Joseph Esposito

Alison Fraser

Joseph B. Rappa, Executive Director, Office of Educational Quality and Accountability

## **VISITING EXAMINATION TEAM**

Dolores Fitzgerald, Coordinating Examiner

Rena Shea, Senior Examiner

Herb Baker, Examiner

Joanne Grenier, Examiner

Linda Prystupa, Examiner

John Sheehan, Examiner

*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 Plymouth Public Schools, Barry E. Haskell; the school department staff; and the town officials of Plymouth.*

## CONTENTS

INTRODUCTION .....	2
HOW DID STUDENTS PERFORM?	
Massachusetts Comprehensive Assessment System (MCAS) Test Results .....	3
WHAT FACTORS DRIVE STUDENT PERFORMANCE?	
Overall District Management .....	7
Leadership, Governance, and Communication .....	8
Curriculum and Instruction .....	10
Assessment and Program Evaluation .....	12
Human Resource Management and Professional Development .....	14
Access, Participation, and Student Academic Support .....	16
Financial and Asset Management Effectiveness and Efficiency .....	18
CONCLUSION .....	20
APPENDIX A:	
EQA's District Examination Process .....	22
APPENDIX B:	
Glossary of Terms Used in EQA Technical Reports .....	23
APPENDIX C:	
State and Local Funding, 1998–2006 .....	24

## 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:

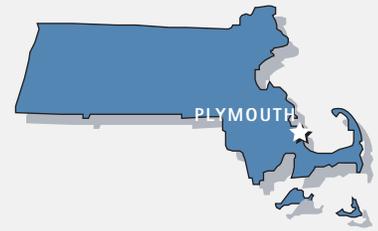
- Provide a comprehensive evaluation of each school district's performance;
- Publish annual reports on selected districts' performance;
- Monitor public education performance statewide to inform policy decisions; and
- Provide the public with information that helps the state hold districts and schools,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

In March 2007, the EQA conducted an independent examination of the Plymouth Public Schools for the period of 2004–2006. The EQA analyzed Plymouth students' performance on the Massachusetts Comprehensive Assessment System (MCAS) tests and identified how students in general and in subgroups were performing. 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 Plymouth Public Schools and the Massachusetts Department of Education; correspondence sent prior to the EQA team'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 provide more current information.

## Putting the Data in Perspective

*Plymouth, MA*



### DISTRICT

*Population:* 51,701

*Median family income:* \$63,266

*Largest sources of employment:*

Educational, health, and social services; and retail trade

*Local government:* Board of Selectmen, Town Manager, Representative Town Meeting

### SCHOOLS AND STUDENTS

*School committee:* 7 members

*Number of schools:* 14

*Student-teacher ratio:* 13.9 to 1

*Per Pupil Expenditures:* \$10,665

*Student enrollment:*

Total: 8,451

White: 92.5 percent

Hispanic: 2.2 percent

African-American: 2.9 percent

Asian-American: 0.9 percent

Native American: 0.3 percent

Limited English proficient:

0.5 percent

Low income: 21.0 percent

Special education: 16.6 percent

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

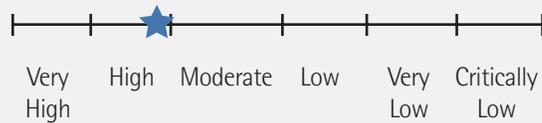
### EDUCATIONAL MANAGEMENT AUDIT COUNCIL ACTION

After reviewing this report, the Educational Management Audit Council voted to accept its findings at its meeting on October 24, 2007.

## MCAS Performance at a Glance, 2006

	DISTRICT	STATE
Average Proficiency Index	82	78
English Language Arts Proficiency Index	89	84
Math Proficiency Index	75	72

### 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 sub-groups 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:

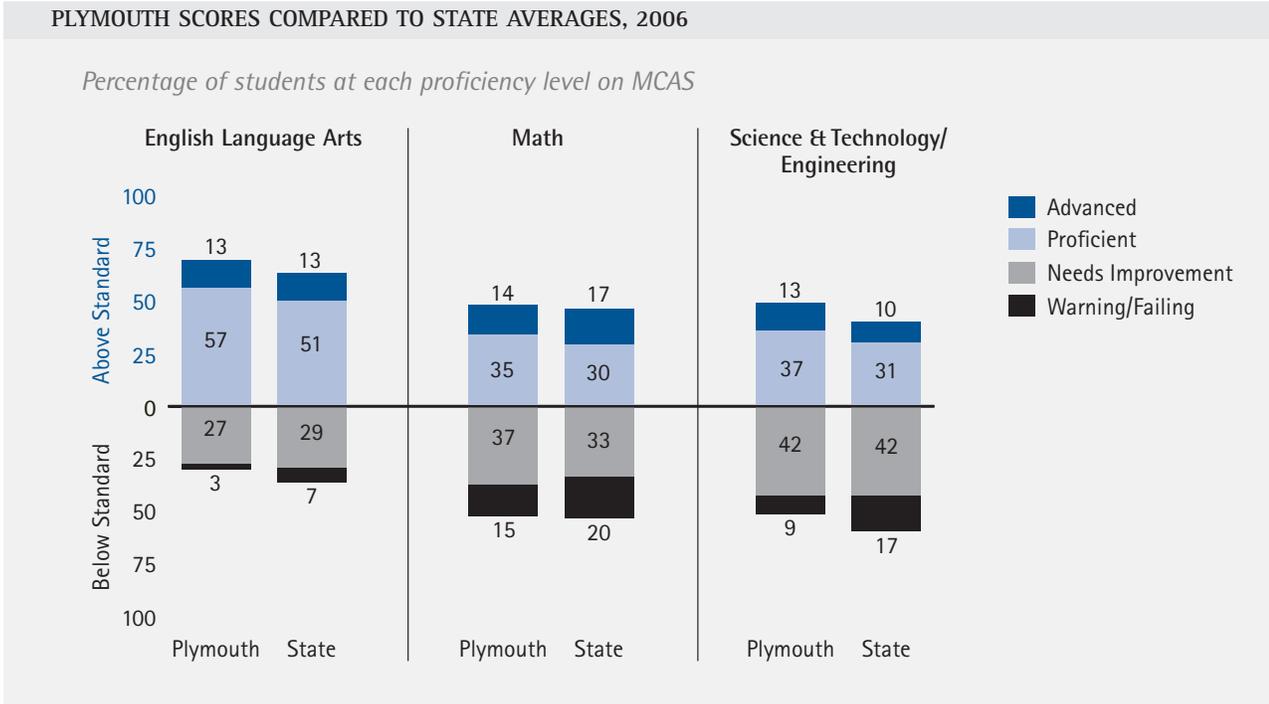
#### 1. Are all eligible students participating in required state assessments?

On the 2006 MCAS tests in ELA, math, and STE, eligible students in Plymouth 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, three-fifths of all students in Plymouth attained proficiency on the 2006 MCAS tests, more than that statewide. More than two-thirds of Plymouth students attained proficiency in English language arts (ELA), nearly half of Plymouth students attained proficiency in math, and half of Plymouth students attained proficiency in science and technology/engineering (STE). Ninety-seven percent of the Class of 2006 attained a Competency Determination.

- Plymouth's average proficiency index (API) on the MCAS tests in 2006 was 82 proficiency index (PI) points, four PI points greater than that statewide. Plymouth's average proficiency gap, the difference between its API and the target of 100, in 2006 was 18 PI points.
- In 2006, Plymouth's proficiency gap in ELA was 11 PI points, five PI points narrower than the state's average proficiency gap in ELA. This gap would require an average improvement in performance of more than one PI point annually to achieve adequate yearly

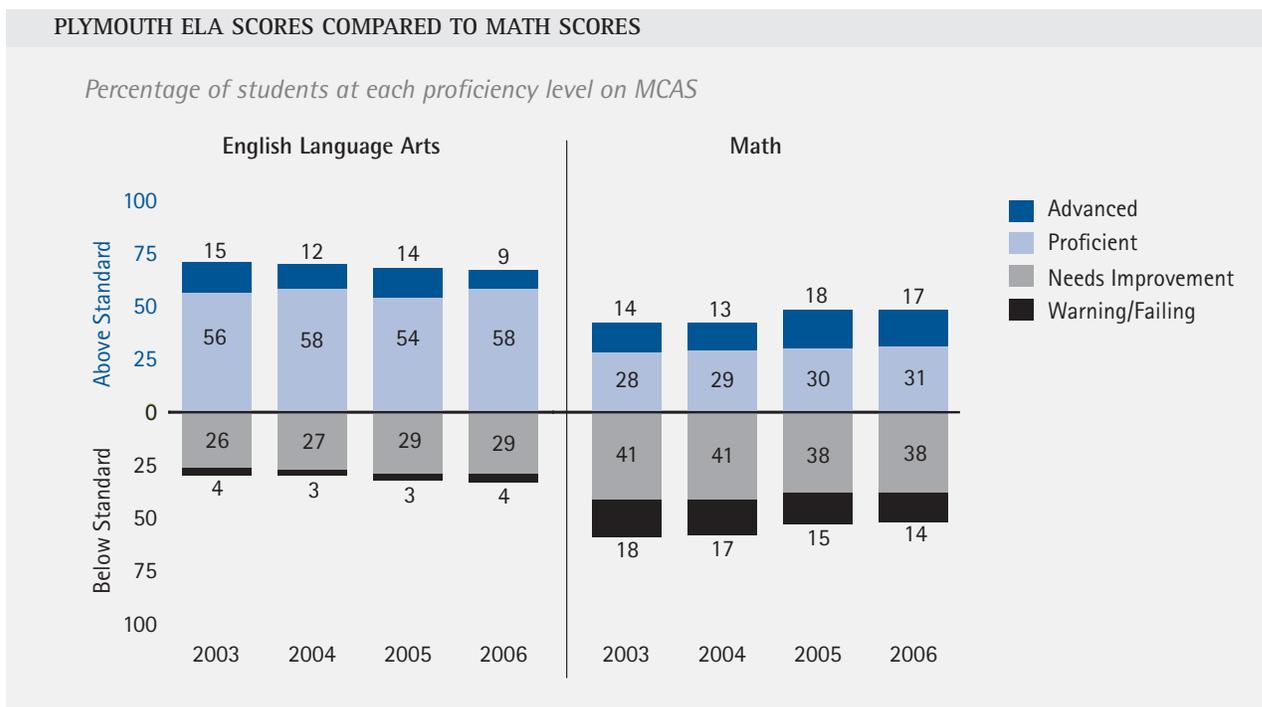


progress (AYP). Plymouth's proficiency gap in math was 25 PI points in 2006, three PI points narrower than the state's average proficiency gap in math. This gap would require an average improvement of three PI points per year to achieve AYP. Plymouth's proficiency gap in STE was 22 PI points, seven PI points narrower than that statewide.

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

Between 2003 and 2006, Plymouth's MCAS performance showed slight improvement overall, some improvement in math, and a slight decline in ELA and STE.

- The percentage of students scoring in the 'Advanced' and 'Proficient' categories rose by three percentage points between 2003 and 2006, while the percentage of students in the 'Warning/Failing' category decreased by two percentage points. The average proficiency gap in Plymouth narrowed from 21 PI points in 2003 to 19 PI points in 2006. This resulted in an improvement rate, or a closing of the proficiency gap, of nine percent.
- Over the three-year period 2003–2006, ELA performance in Plymouth remained flat at 88 PI points.
- Math performance in Plymouth showed improvement, at an average of more than one PI point annually. This resulted in an improvement rate of 13 percent, a rate lower than that required to meet AYP.
- Between 2004 and 2006, Plymouth had a slight decline in STE performance. The percentage of students



attaining proficiency decreased from 53 percent in 2003 to 50 percent in 2006, although the proficiency index remained the same at 78 PI points.

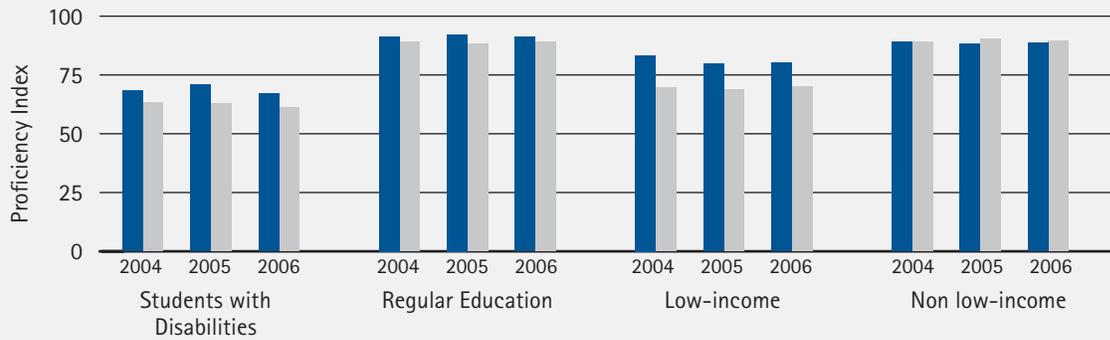
#### 4. Do MCAS test results vary among subgroups of students?

MCAS performance in 2006 varied substantially among subgroups of Plymouth students. Of the eight measurable subgroups in Plymouth in 2006, the gap in performance between the highest- and lowest-performing subgroups was 22 PI points in ELA and 26 PI points in math (regular education students, students with disabilities, respectively).

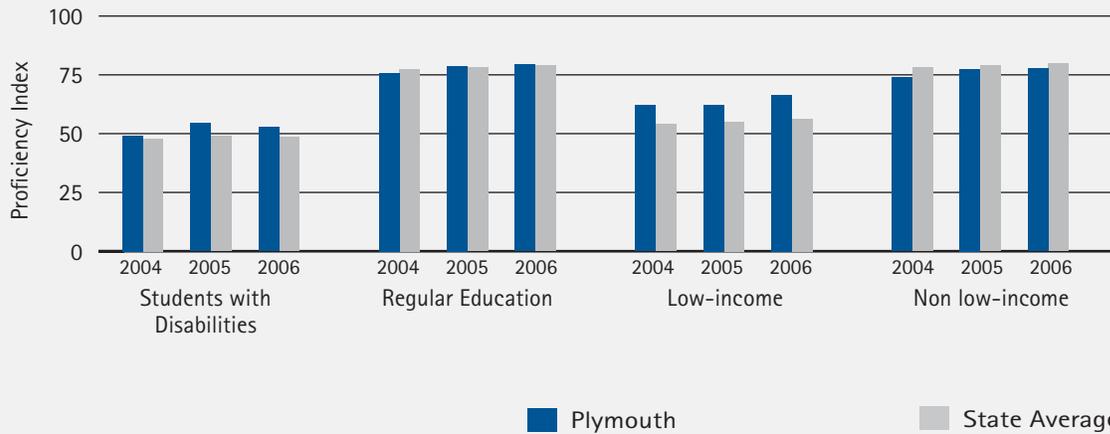
- The proficiency gaps in Plymouth in 2006 in both ELA and math were wider than the district average for students with disabilities, African-American students, and low-income students (those participating in the free or reduced-cost lunch program). Less than half the students in these subgroups attained proficiency.
- The proficiency gaps in ELA and math were narrower than the district average for regular education students, White students, and non low-income students. For each of these subgroups, more than three-fifths of the students attained proficiency.
- The proficiency gap for male students was wider than the district average in ELA but narrower in math, while the proficiency gap for female students was wider than the district average in math but narrower in ELA. Roughly three-fifths of the students in both subgroups attained proficiency.

PLYMOUTH STUDENTS' IMPROVEMENT OVER TIME, COMPARED TO STATE AVERAGES

English Language Arts



Math



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

In Plymouth, the performance gap between the highest- and lowest-performing subgroups in ELA was 24 PI points in both 2003 and 2006, and the performance gap between the highest- and lowest-performing subgroups in math narrowed from 29 to 27 PI points over this period.

- Only African-American students had improved performance in ELA between 2003 and 2006. The performance of the other student subgroups remained relatively flat over this period.
- In math, all subgroups in Plymouth with the exception of African-American students showed improved performance between 2003 and 2006. The most improved subgroups in math were low-income students and students with disabilities.

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. Plymouth received the following rating:

Performance Rating:



WHAT FACTORS DRIVE STUDENT PERFORMANCE?

Overall District Management

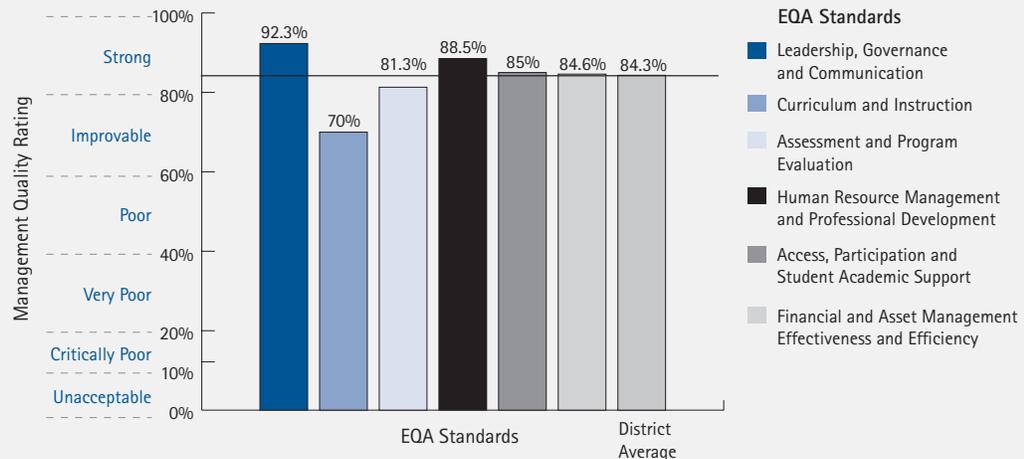
To better understand the factors affecting student scores on the MCAS tests, the EQA analyzes district performance on 67 indicators in six areas: leadership, governance, and communication; curriculum and instruction; assessment and program evaluation; human resource management and professional development; 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, Plymouth received an overall MQI score of 'Strong' (84.3 percent). The district performed best on the Leadership, Governance, and Communication standard, and scored in the 'Strong' category in all standards except Curriculum and Instruction, in which it was rated 'Improvable'. Given these ratings, the district performed as expected on the MCAS tests. During the review period, student performance declined slightly in ELA and improved in math. On the following pages, we take a closer look at the district's performance in each of the six standards.

A CLOSER LOOK AT MANAGEMENT QUALITY

Plymouth, 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, Plymouth 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 Plymouth Public Schools consisted of the superintendent and the seven-member school committee. During the latter part of the review period, the superintendent and the school committee made a concerted effort to enhance the communication between the district and all other town agencies that focused on district improvement. The superintendent met weekly with the town manager and other department heads to engage in conversations regarding the needs of the entire community.

The school committee members met with the finance committee and selectmen on a regular basis, again opening up the lines of communication in their role as student advocates. The result of this ongoing collaboration produced a better understanding of the needs of both the district and the town as a whole, and the town recently voted to allow the school district to pursue a total of \$199 million to upgrade the facilities of both high schools.

The school committee changed membership on four occasions during the review period. Micromanagement was not deemed a problem. The committee did not have a formal mentoring program, but the superintendent met with all new members prior to their first meeting to share all pertinent information and the contents of the policy manual. Veteran members also offered their support to new members via meetings, telephone conversations, and e-mail. The school committee had subcommittees in the areas of policy revision and communications,

## Performance at a Glance

### Ratings on Performance Indicators

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



### Areas of Strength

- The district had a strategic plan that served as the District Improvement Plan in place for the entire period under review as well as a School Improvement Plan for each building that aligned with the DIP.
- The district established action plans through the Performance Improvement Mapping process in both ELA and mathematics specifically directed toward improved MCAS scores for all students.
- A district data team and school-based data teams worked together to provide classroom teachers with needed information that would address areas of strength and weakness.

### Areas for Improvement

- The math textbooks at the elementary and middle school levels, which were used by teachers as the operational curriculum, did not align with the state frameworks. The district's request to include a math specialist at the elementary level was not funded by the town.

and it assigned a member to serve as liaison to each school. The local cable channel televised all meetings, affording community members the opportunity to share school information. Members of the press in attendance also reported the information in the two local newspapers. The school committee policy manual was not updated on a regular basis and included many policies with revision dates in the 1990s.

## Planning and Governance

The district began strategic planning in 2002 with the adoption of a three-year plan that included three basic goals along with objectives, timelines, financial implications, and expected outcomes in the areas of ELA, mathematics, and safe and secure schools. A steering committee developed the present plan covering the years 2006–2008 that contained the same three goals. In addition to the strategic plan, the district produced a District Improvement Plan (DIP) that mirrored the strategic plan and contained both mission and vision statements that were in evidence in the buildings as well as in many documents. Plans for ELA and mathematics created during the Performance Improvement Mapping (PIM) process supplemented the new DIP and addressed the needs of both the district and individual schools in need of improvement. The DIP appeared on the district's website and was made available in the form of a brochure.

The School Improvement Plan for each school contained the same goals as the DIP and addressed the needs specific to the school. The principals and school councils presented their respective SIPs to the school committee and also reported on the progress of attaining the goals included in their prior SIPs. Regular attendance occurred at school council meetings, and parents and other community members were interested in serving on the school councils, mostly at the elementary level.

The district regularly reviewed assessment data, and staff members had one full day and eight half days of professional development to work on areas such as curriculum, assessment, review of data, and differentiated instruction. The district, in accordance with the teachers' contract, provided, in addition to the professional development time, three after-school meeting dates per month to further work in areas deemed necessary by the teaching staff.

The district shared the analyzed MCAS data and district performance packets on a regular basis with the school committee and the community at large. The information contained within each packet included test results, item analysis trends, comparisons, and summary sheets outlining the strengths and weaknesses of each school. Principals met with staff regularly to use analyzed data to improve instruction, and schools made changes to programs based on the data.

## Curriculum and Instruction

The Plymouth Public Schools faced some challenges in the areas of curriculum development and instructional practice – essential elements of efforts to improve student performance.

### Aligned Curricula

The district had a process and practices in place for developing, reviewing, and revising the curriculum. This included analysis of the MCAS data at the district and building levels when they were first received from the Department of Education (DOE). The district trained all administrators in TestWiz, and they could access the MCAS test data through the DOE security portal as soon as they were available. In addition to a data team at the central office, each building had a data team that analyzed the school's data and then, along with the principal, shared the data at staff meetings for further analysis and interpretation. While other staff members were not trained in TestWiz, they were familiar with using the reports to identify trends and strengths and weaknesses to be addressed. A group then developed an action plan to make any curriculum modifications needed for the balance of the year. The district supported curriculum committees each summer that worked on revisions that became addenda to the curriculum until a major revision was undertaken. In 2005–2006, the district developed a formal curriculum review cycle to create consistency in the process. The cycle included steps for reviewing and revising the current curriculum, adopting new textbooks, providing professional development, and evaluating new programs.

Through the examination of the MCAS test scores and through the PIM process required by its AYP status for subgroups, the district identified mathematics as a districtwide issue needing attention in 2004–2005. The district developed an improvement plan for math in 2005–2006 and completed a major revision of the math curriculum in the summer of 2006. The math

## Performance at a Glance

### Ratings on Performance Indicators

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



### Areas of Strength

- The district developed extensive curriculum documents that aligned to the state frameworks, contained required components structured in a consistent user-friendly format, and were available in hard copy, on CD, and online.
- The district generated a great deal of comprehensive data and used them to inform modifications to the curriculum.

### Areas for Improvement

- Classroom observations by the EQA examiners yielded evidence of teacher instructional practices that reflected high expectations for students' work and mastery in only 48 percent of classrooms at the high school level.
- Study halls at the high school level reduced time on learning from the required 990 hours to 864.
- The district did not implement a formal writing program or a consistent model across buildings and grades, especially at the elementary level.

textbook used at grades K-5 was a 2000 edition that was not in alignment with the state curriculum frameworks. The textbook was not scheduled to be replaced until at least 2008-2009.

The district aligned its curricula to the Massachusetts curriculum frameworks using a format that contained measurable objectives, resources, instructional strategies, and timelines or pacing charts. The district provided curriculum documents to staff in several forms: hard copy, online through the district website, and on CD. Teachers were able to connect to the Internet resources included in the curriculum documents from the website or CD.

### Effective Instruction

The district provided multiple levels of professional development to develop and improve effective instruction. These included two years of professional development on differentiated instruction and a four-year effort on standards-based instruction and assessment strategies. In response to student need, as indicated by student achievement data, the district brought in a mathematics consultant to work with instructors on teaching techniques, adopted the Six Traits of Writing program, and focused attention on improved methods for teaching special education students, namely in reading and mathematics.

The EQA examiners saw a variety of instructional strategies such as differentiated instruction used in 37 percent of classrooms observed during the site visit. Recently, the district trained all high school staff in brain-based teaching, followed by training for middle school teachers in 2006-2007, with training for elementary teachers planned for 2007-2008. As part of that initiative, the district offered a summer course in brain-based learning that a large percentage of teachers attended.

The district organizational structure for curriculum consisted of subject-area coordinators for grades K-12, a curriculum council, and a curriculum coordinating council that ultimately approved all curricula. The K-12 coordinators worked most closely with the secondary level, while elementary principals monitored curriculum at their level. Administrators monitored teachers' instruction with walk-throughs and formal evaluations. The district did not have a formal protocol or consistent practice for walk-throughs. The district had a lesson plan template on its website that teachers were "strongly encouraged" but not mandated to use. Collection, review, and monitoring of plan books and lesson plans varied across buildings.

Assessments were used to monitor student mastery of subjects but not the effectiveness of teachers' instruction. Data were used to inform and drive instruction through the modification of programs and courses.

## 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

The district designed its assessment program to include the director of student support services as well as district and school assessment teams. The teams analyzed data and disseminated them to teachers and staff at building as well as team meetings. The teams were responsible for analyzing each respective school's data, presenting them to teachers, and working with teachers to identify student weaknesses and strengths. The data were disaggregated by subgroup, namely the special education subgroup. In addition, the teams provided the data analyses to the district's data director, who then produced a comprehensive report including all the MCAS test data and information related to Advanced Placement (AP) and SAT results.

The district trained all principals in TestWiz, and while teachers had not received such training, they said in interviews that they felt comfortable using data. However, interviewees told the EQA team that while there was a great deal of available data, not all teachers were using the data to impact their instruction. Teachers did extensively use data in reviewing and revising the curriculum on an ongoing, as well as an annual, basis.

While there was a lack of formative assessments in the district, district leaders planned to fully implement the Group Reading Assessment and Diagnostic Evaluation (GRADE) and the Group Math Assessment and Diagnostic Evaluation (GMADE) in the coming year. At the time of the review, teachers used the Dynamic Indicators of Basic Early Literacy Skills

## Performance at a Glance

### Ratings on Performance Indicators

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



### Areas of Strength

- A districtwide assessment team was in place and each school had a volunteer assessment team that analyzed the MCAS data and disseminated them to all staff.
- All teachers in grades K-3 were trained in the implementation of the DIBELS.
- The district produced a comprehensive assessment report that included MCAS data for all schools as well as SAT and AP data for the high schools.

### Areas for Improvement

- Middle and high schools administered end-of-year common exams, but the use of formative assessments was lacking in the district.
- The district did not have formal program evaluation procedures in place and relied on the MCAS data to judge the effectiveness of its programs.

(DIBELS) for diagnostic purposes at grades K-3, and they used the Stanford 9 for diagnostic purposes at grade 7 and also at grade 8 for students enrolled in the Reading for High School course, as well as to determine placement in grade 9 reading lab courses. The district used other assessments including Addison Wesley end-of-chapter tests, Houghton Mifflin themed tests, and common exams at the high school. Schools varied in their use of these assessments.

Student participation on the MCAS tests was near 100 percent for both regular and special education students. Schools had different motivating activities to encourage students to attend the MCAS testing sessions.

In addition to the extensive testing report, the district reported the MCAS test results to parents and to the community through televised school committee meetings. The town's annual report also contained a section devoted to the school district and its accomplishments.

### **Program Evaluation**

The district engaged in few voluntary external and internal audits, with the exception of a voluntary audit that was administered to students in grades 7-12 regarding their perceptions about the use of alcohol and drugs. The district invited The Education Alliance at Brown University to conduct a "Climate Review" of the North High School, which resulted in the creation of a Smaller Learning Community at that high school. This program spread to include grade 9 at both high schools and grade 10 at one high school.

Although the district did have a five-year cyclical curriculum plan in place, it had no formal evaluation procedures and rather depended upon the MCAS test results to judge the effectiveness of its programs. The MCAS data revealed districtwide student weaknesses in math and a significant gap between the performance of special education and regular education students. As a result, the district instituted new courses, adopted new instructional techniques, and reviewed the delivery of its special education program. The data also led the district to change the number of class periods at the middle school level to allow for increased instructional time in the core areas, and to move teachers to areas of need in special education and in middle school math.

## 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

The Plymouth Public Schools used a comprehensive process for the identification, recruitment, and selection of professional staff. The district posted new positions with print media outlets at the state and local levels. In addition, the district participated in eight job fairs including two that the Affirmative Action Recruitment Consortium of Eastern Massachusetts administered. Principals at the elementary level and principals and curriculum coordinators at the secondary level did the screening and interviewing of candidates and put together a comprehensive binder that included letters of reference, Criminal Offender Record Information (CORI) forms, and a checklist for interviews. The principal would then submit a final candidate to the assistant superintendent for human resources, who would review the personnel binder, interview the candidate, and make the final determination. Interviewees maintained that the district sought out the best candidate regardless of finances. The district announced administrative positions using the same media outlets and job fairs. The superintendent would screen all applicants for an administrative position and form a system-wide screening committee, which would interview the superintendent's semi-finalists. The screening committee in turn would make five or six recommendations to the superintendent, who would make the final selection.

### Performance at a Glance

#### Ratings on Performance Indicators

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



#### Areas of Strength

- The district had a comprehensive induction program, which included training and compensation for mentors and a 20-hour Beginning Teacher Institute for protégés that included a stipend.
- The three-tiered professional development plan consisted of mandatory in-service offerings, offerings based on building needs, and offerings based on individual teacher needs.
- The Plymouth Public Schools had an effective process for the recruitment, selection, and retention of professional staff; most administrators and teachers held appropriate licensure, and those who did not held waivers.
- The district embarked on a four-year in-service training program connected to the development of data analysis skills and the use of data; the program was implemented collaboratively by the districtwide professional development and data analysis teams.
- The district supported changes in programmatic offerings through professional development designed to provide teachers with the necessary skills to teach new and modified programs.

#### Areas for Improvement

- The evaluation process for teachers involved using an instrument that was a modification of the one that it used in 1987.

## Professional Development

The assistant superintendent for administration and instruction chaired the district professional development program. The district professional development team, consisting of administrators and teachers, and the curriculum coordinating council, consisting of administrators, collaborated on choosing professional development offerings. Improved student achievement was the top priority for professional development. Initially, teachers would complete a needs assessment and forward it to the professional development team to consider potential offerings. The districtwide data team and the curriculum coordinators also made recommendations in their respective areas for professional development. The district professional development team would make the final determination of courses to be offered.

The district delivered mandated professional development programs during the district's eight half-day and one full-day release days. Best Practices in Assessment and Instructional Strategies represented the theme of the mandated professional development during the period under review. A second layer of professional development offerings focused on building needs in the area of content and consisted of more than 40 in-service offerings that resulted in PDPs or college credit for teachers. The third layer of professional development offerings dealt with individual teacher needs and could be satisfied by matriculating in the in-service programs or by taking a course or attending a conference outside the district. The district reimbursed teachers up to \$1,000 per year for tuition for courses. The district also reimbursed teachers for fees and travel expenses related to out-of-district conferences. Administrators had a \$1,000 line item in their budget for personal professional development, which included dues and fees for professional organizations and conferences.

## Evaluation

The instrument used for the administrator evaluations complied with the Principles of Effective Administrative Leadership. The district's evaluation procedure for all administrators was not in compliance with Massachusetts General Laws because assistant principals were not evaluated due to stalled negotiations. The district's evaluation procedure for teachers complied with 603 CMR 35.00, and the instrument used for teacher evaluations complied with the Principles of Effecting Teaching. The instrument written in 1997, when the Principles of Effective Teaching became a state mandate, closely resembled the instrument the district used in 1987. The district used an effective induction program as part of its supervision and evaluation process. In addition, administrators used individual professional development plans and walk-throughs as part of the overall evaluation process.

## 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

The district provided an array of services for its special education and at-risk students, including early childhood education, the parent center, literacy toolkits, summer reading camp, and tutorials for at-risk students. The district was working toward placing these children in the least restrictive environment, but many were still pulled out of the regular classroom for services. Literacy instruction took various forms such as Reading First, the Three Tier model that included Soar to Success, Project Read, Title I services, and Lexia. Tutoring programs were offered at various times of the day and in the summer, and there was an after-school tutorial program at a local housing project staffed by students, adult volunteers, and certified teachers. The district offered a Chapter 74 vocational education program. Students enrolled in this program participated in the regular academic program on a daily basis. The district provided in-district life skills, autism, and support programs so that students with more intensive needs could remain with their peers. In addition, remedial math and reading classes were provided at the middle schools, and reading and math labs at the high schools.

Several AP and honors courses were offered at the high school. The middle school had an Advanced Readiness Learners (ARL) program that offered Spanish and robotics to students scoring in the 'Proficient' and 'Advanced' categories on the MCAS tests.

The differences in grant funding affected the variety and type of remediation that each school provided. One school, designated a complete Title I school, had a large assortment of materials and staffing. The district provided funding to open math and reading labs and offer the remediation courses at the middle and high schools.

## Performance at a Glance

### Ratings on Performance Indicators

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



### Areas of Strength

- The district instituted teaming at the middle schools, and with Brown University instituted teaming at grade 9 and one high school's grade 10 in order to reduce discipline referrals, suspensions, dropouts, and retentions.
- The district instituted attendance goals and gave no course credit for excessive student absences.
- The principals set a goal to reduce teacher absences by one percent per year.

### Areas for Improvement

- The district did not ensure, in all cases, that at-risk subgroups consistently received instruction in the regular classroom setting.
- The district had few mechanisms in place to help students make effective transitions between buildings.

The district attempted to teach students in an inclusionary, co-taught model, but this was not done on a consistent basis. All the schools had pre-referral teams to draw up accommodations for students to participate in the least restrictive environment. The middle school was piloting a model of mental health accommodations so that students could remain in their classes. Some students at the high school with more serious social/emotional problems remained in their classes with a teacher to monitor them, while others attended a substantially separate program until they earned their way out of it. All students, including those in vocational education, were encouraged to take high-level courses.

### Attendance

The schools included information urging good attendance in all student handbooks. Student attendance, tracked by Rediker software, exceeded 90 percent for all levels and all subgroups. The district had a policy for the loss of credit with excessive absences at the high school, and an administrator worked closely with the transient population to assure attendance and full participation. The district effectively tracked and monitored staff attendance. Principals had improvement of staff attendance as one of their goals.

### Discipline and Dropout Prevention

The district worked with Brown University and instituted academies at grade 9 in both high schools and at grade 10 in one high school to better personalize instruction, monitor student behavior, and prevent retentions and dropouts. Each academy had its own housemaster and counselor, as the middle school teams did, and teams of teachers met regularly with them to discuss student progress. The high school had one small, substantially separate program for behaviorally challenged students and was planning an afternoon/evening school for older students at risk for discipline problems and/or dropping out.

To assist students to become successful, the high schools had summer school for those who qualified and online and in-school credit recovery courses. They also had a Failure is Not an Option program for freshmen failing one or more courses, and work-study programs for older 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 district had a formal budget process with numerous benchmarks that encompassed a yearlong process, beginning in April of the current budget year with administrators discussing priorities and guidelines, and concluding the following April with a completed budget presentation at the annual town meeting. Examiners learned in interviews that the process was open and participatory with many stakeholders including the school committee members, central office administrators, school administrators, teachers, parent councils, and municipal boards and administrators having the opportunity to provide input and guidance.

The district developed three levels of budgets for consideration by the school committee and ultimately the town meeting. The first budget was a level service budget, which was the same services and staffing provided in the current budget year adjusted for the subsequent year's cost. The second budget was a program restoration or enhancement budget in which programs that had been reduced in previous budget years were reinstated or new programs were added. The third budget was the one the school committee approved.

The resultant budget document provided clear and accurate information and tables that could be understood by all levels of interest. It was comprehensive in that it contained all funding and expenditure categories by cost centers used in the district.

### Performance at a Glance

#### Ratings on Performance Indicators

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



#### Areas of Strength

- The district instituted an energy conservation program that during FY 2006 resulted in a reduction in utility costs of \$744,000.
- On September 6, 2006, Plymouth citizens voted a \$199 million building project to upgrade both high schools, resolving severe space needs and upgrading educational facilities and programs.
- After a NEASC report stated that North High School needed to address its routine cleaning and maintenance needs, the district developed a formal facilities services audit program and contracted with a vendor to improve its response to maintenance work order requests.

#### Areas for Improvement

- During the review period, the district had its Chapter 70 aid reduced one year by almost \$4 million and level funded the next year, and the community experienced declining revenues due to the deregulation of the power plant.

---

## Financial Support

During the review period, the district and municipality had experienced reductions in revenues such as reduction of their Chapter 70 aid one year by \$4 million and level funded the next year, and the community experienced revenue cuts due to the deregulation of the power plant. However, evidence showed that the community provided financial support to the district when the need was apparent. On September 6, 2006, the citizens voted for a \$199 million building project to upgrade both high schools. The district was experiencing serious overcrowding in its two high schools. Interviewees stated that South High School was built for 1,200 students and now housed 1,600 students; North High School was built for 800 students and now had 1,000 students. Another example was that one year the school committee did not include needed replacement textbooks in its final budget presented at the town meeting. The town finance committee recognized the need and recommended at a town meeting that the school committee budget request be increased to include these textbooks.

Although the expenditure per regular education student was below the state average during the review period, interviews with some staff members indicated the district had adequate supplies, materials, and technology. However, in other interviews staff members commented that Reading First textbooks were not available and requisite materials were not adequate.

## Facilities and Safety

The district, as stated above, had begun to address the problem of overcrowded, aging, and inappropriate facilities in its two high schools by the vote for a \$199 million override. The Massachusetts School Building Authority inspected all schools in the commonwealth in 2006, and in Plymouth found that two elementary schools, the Cold Spring School and the Nathaniel Morton School, were in moderate condition with some building systems that may need attention. The other buildings, with the exception of the high schools, were rated as in generally good condition with a few building systems that may need attention. The New England Association of Schools and Colleges (NEASC) report observed that routine cleaning and maintenance at the high schools was an area of concern, and school administrators developed a plan to reassign custodial labor in conjunction with the implementation of a vendor-furnished, computerized work order system to address the problem. The district also developed a formal facilities service audit program.

Most schools had systems to ensure student safety, including intrusion alarms, security receptionists, sign-in procedures, visitor badges, buzzers and phone systems, and exterior cameras. However, in at least two buildings the examiners encountered unlocked side or rear doors and entered the schools without being challenged.

## CONCLUSION

The Plymouth Public Schools was considered to be a 'High' performing district, marked by student achievement that was 'High' in ELA and 'Moderate' in math on the MCAS tests during the review period. Three-fifths of Plymouth's students scored at or above the proficiency standard on the 2006 administration of the MCAS tests. The EQA gave the district a Management Quality Index rating of 'Strong,' with the highest rating in Leadership, Governance, and Communication, and the lowest in Curriculum and Instruction.

The leadership of the Plymouth Public Schools during the past several years has been stable. The superintendent began his career in the district in 1993 as social studies coordinator, then in 1999 became assistant superintendent for human resources, and in 2004 became superintendent. The seven-member school committee has a mixture of both veteran and newly-elected members. Its chairperson has nine years of service, and the time of service for other members ranges from 21 years to 10 months. The superintendent met with all new members of the school committee prior to their first meeting to acquaint them with the district and policies.

Until the last few years, according to EQA interviews, there was very little cooperation among the various town departments, and the school committee and the selectmen did not always work together. The superintendent and the school committee have made a concerted and successful effort to open up the lines of communication between the school department and all other town departments.

The town supported the educational system, and in 2006 the citizens voted a \$199 million building project to upgrade both high schools. These schools are currently overcrowded, and the community has submitted its Statement of Interest in this building project to the Massachusetts School Building Authority. The town has always met net school spending obligations, though during the past seven years the funding level for the Plymouth Public Schools has been below the state average. A review of district population data shows that the population is declining, from an all time high of 9,133 students in 2002 to an enrollment of 8,451 in 2006. Interviewees said that the community is losing affordable housing and, according to some, its middle class.

The Plymouth Public Schools encompasses the largest land area of any town in the commonwealth. As a result, its site-based model of administration is due more to geography than to management. Because of the distances between buildings, convening grade-level meetings across the district is difficult. Unlike high and middle school principals, elementary principals find it challenging to meet as a group.

The district created a strategic plan for 2002-2005 and 2006-2008 and a District Improvement Plan that mirrored it. The main goals of the plans were to improve student achievement in ELA and math, and to provide safe and secure schools. MCAS data were regularly reviewed for the district, for individual schools, and for subgroups. The MCAS data provided the impetus for the development of the goals in the strategic plan/DIP and for curricular changes. Math was identified as a districtwide area of need, and Plymouth Public Schools completed an overhaul of the math curriculum during the review period in order to align it to the state curriculum frameworks.

The district aligned its curricula to the state curriculum frameworks using a format that contained measurable objectives, resources, instructional strategies, and timelines or pacing charts. In 2005-2006, the district developed a formal curriculum review cycle to create consistency in the process. The cycle included steps for reviewing and revising the current curriculum, adopting new textbooks, providing professional development, and evaluating new programs. While there was a lack of formative assessments in the district, district leaders planned to fully implement the GRADE and the GMADE in the coming year.

Professional development was focused on improved student achievement and included offerings on differentiated instruction, standards-based instruction, and assessment strategies. The district also made other efforts to improve student achievement, such as hiring a math consultant to work with teachers, adopting the Six Traits of Writing program, and having special education staff strategize on best practices for that subgroup.

The community houses Pilgrim Station, a nuclear power plant, and the district and town have developed a comprehensive Multi-Hazard Evacuation Plan that includes the guidelines and procedures should a problem arise at the nuclear power plant.

## 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.

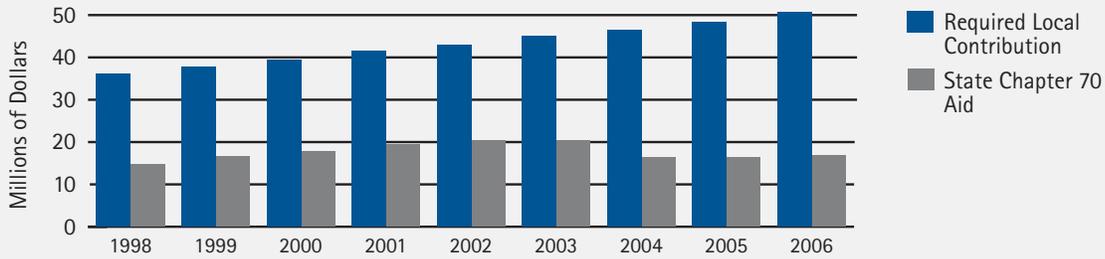
## APPENDIX B: EXPLANATION OF TERMS USED IN EQA REPORTS

<b>ABA:</b> Applied Behavioral Analysis	<b>FTE:</b> Full-Time Equivalent	<b>MQI:</b> Management Quality Index – an indicator of the relative strength and effectiveness of a district’s management system
<b>ADA:</b> Average Daily Attendance	<b>FY:</b> Fiscal Year	<b>MUNIS:</b> Municipal Information System
<b>ALT:</b> MCAS Alternative Assessment	<b>Gap Analysis:</b> A statistical method to analyze the relationships between and among district and subgroup performance and the standard of 100 percent proficiency	<b>NAEYC:</b> National Association for the Education of Young Children
<b>API:</b> Average Proficiency Index (of the English Language Arts Proficiency Index and Math Proficiency Index for all students)	<b>GASB:</b> Government Accounting Standards Board	<b>NCLB:</b> No Child Left Behind
<b>ATA:</b> Accountability and Targeted Assistance	<b>GMADE:</b> Group Math Assessment and Diagnostic Evaluation	<b>NEASC:</b> New England Association of Schools and Colleges
<b>AYP:</b> Adequate Yearly Progress	<b>GRADE:</b> Group Reading Assessment and Diagnostic Evaluation	<b>NRT:</b> Norm-Referenced Test
<b>CAP:</b> Corrective Action Plan	<b>GRADU:</b> The graduation yield rate for a class four years from entry	<b>NSBA:</b> National School Boards Association
<b>CBM:</b> Curriculum-Based Measures	<b>IEP:</b> Individualized Education Program	<b>NSS:</b> Net School Spending
<b>CD:</b> Competency Determination – the state’s interim Adequate Yearly Progress indicator for high schools based on grade 10 MCAS test passing rates	<b>Improvement Gap:</b> 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	<b>Performance Gap:</b> A measure of the range of the difference of performance between any subgroup’s Proficiency Index and another subgroup’s in a given district
<b>CMP:</b> Connected Math Program	<b>IPDP:</b> Individual Professional Development Plan	<b>PI:</b> Proficiency Index – a number between 0–100 representing the extent to which students are progressing toward proficiency
<b>CORI:</b> Criminal Offender Record Information	<b>IRIP:</b> Individual Reading Improvement Plan	<b>PIM:</b> Performance Improvement Management
<b>CPI:</b> Composite Proficiency Index – a 100-point index combining students’ scores on the standard MCAS and MCAS Alternative Assessment (ALT)	<b>ISSP:</b> Individual Student Success Plan	<b>POA:</b> Program Quality Assurance – a division of the DOE responsible for conducting the Coordinated Program Review process
<b>CPR:</b> Coordinated Program Review – conducted on Federal Education Acts by the DOE	<b>LASW:</b> Looking at Student Work	<b>Proficiency Gap:</b> A measure of a district or subgroup’s Proficiency Index and its distance from 100 percent proficiency
<b>CRT:</b> Criterion-Referenced Test	<b>LEP:</b> Limited English Proficient	<b>QRI:</b> Qualitative Reading Inventory
<b>CSR:</b> Comprehensive School Reform	<b>MASBO:</b> Massachusetts Association of School Business Officials	<b>Rate of Improvement:</b> The result of dividing the gain (improvement in achievement as measured by Proficiency Index points) by the proficiency gap
<b>DCAP:</b> District Curriculum Accommodation Plan	<b>MASC:</b> Massachusetts Association of School Committees	<b>SAT:</b> A test administered by the Educational Testing Service to 11th and 12th graders
<b>DIBELS:</b> Dynamic Indicators of Basic Early Literacy Skills	<b>MASS:</b> Massachusetts Association of School Superintendents	<b>SEI:</b> Sheltered English Immersion
<b>DIP:</b> District Improvement Plan	<b>MAVA:</b> Massachusetts Association of Vocational Administrators	<b>SIMS:</b> Student Information Management System
<b>DOE:</b> Department of Education	<b>MCAS:</b> Massachusetts Comprehensive Assessment System	<b>SIOP:</b> Sheltered Instruction Observation Protocol
<b>DPDP:</b> District Professional Development Plan	<b>MCAS-AIt:</b> Alternative Assessment – a portfolio option for special needs students to demonstrate proficiency	<b>SIP:</b> School Improvement Plan
<b>DRA:</b> Developmental Reading Assessment	<b>MCPPPO:</b> Massachusetts Certified Public Purchasing Official	<b>SPED:</b> Special Education
<b>ELA:</b> English Language Arts	<b>MELA-O:</b> Massachusetts English Language Assessment-Oral	<b>STE:</b> Science and Technology/Engineering
<b>ELL:</b> English Language Learners	<b>MEPA:</b> Massachusetts English Proficiency Assessment	<b>TerraNova:</b> K–12 norm-referenced test series published by CTB/McGraw-Hill
<b>EPI:</b> English Language Arts Proficiency Index	<b>MPI:</b> Math Proficiency Index	
<b>ESL:</b> English as a Second Language		
<b>FLNE:</b> First Language Not English		
<b>FRL/N:</b> Free and Reduced-Price Lunch/No		
<b>FRL/Y:</b> Free and Reduced-Price Lunch/Yes		

APPENDIX C: STATE AND LOCAL FUNDING, 1998-2006

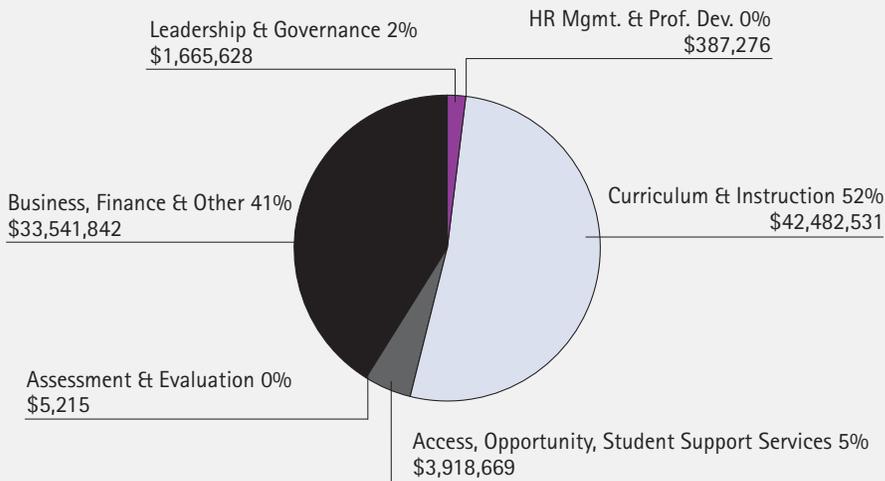
A school district's funding is determined in part by the Chapter 70 program – the major program of state aid to public elementary and secondary schools. In addition to supporting school operations, it also establishes minimum requirements for each municipality's share of school costs. The following chart shows the amount of Plymouth's funding that was derived from the state and the amount that the town was 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 \$69,815,133 to \$76,834,972; Chapter 70 aid increased from \$16,321,643 to \$16,749,443; the required local contribution increased from \$46,299,347 to \$50,709,654; and the foundation enrollment decreased from 8,789 to 8,556. Chapter 70 aid as a percentage of actual NSS decreased from 23 to 22 percent during this period. From FY 2004 to FY 2005, total curriculum and instruction expenditures as a percentage of total Schedule 1 NSS decreased from 63 to 62 percent.

WHERE DOES THE FUNDING FOR PLYMOUTH PUBLIC SCHOOLS COME FROM?



HOW IS THE FUNDING FOR PLYMOUTH PUBLIC SCHOOLS ALLOCATED?

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





EDUCATIONAL MANAGEMENT AUDIT COUNCIL  
*Office of Educational Quality and Accountability*

One Ashburton Place, Room 1403, Boston, MA 02108 ■ (617) 727-2398 ■ Fax: (617) 727-0049

65 South Street, Suite 104, Hopkinton, MA 01748 ■ (508) 435-5126 ■ Fax: (508) 435-5249