Massachusetts Department of Revenue Division of Local Services Frederick A. Laskey, Commissioner Joseph J. Chessey, Jr., Deputy Commissioner



# Braintree Public Schools Review Executive Order 393

Education Management Accountability Board Report March 1999

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# I. Introduction

The Massachusetts Education Reform Act (MERA) of 1993 has three major goals: to increase student achievement; to achieve adequate funding for all local and regional school districts over a seven-year period; and to bring equity to local taxation efforts based on a community's ability to pay. In February 1997, the Governor issued Executive Order 393 to evaluate the education reform program that was nearing the end of its fourth year. In FY98, Massachusetts General Laws (M.G.L.) Ch. 70 state aid for education reached \$2.3 billion. With an investment of this magnitude in the Commonwealth's schools, it is critical to "review, investigate and report on the expenditures of funds by school districts, including regional school districts, consistent with the goals of improving student achievement." To that end, Executive Order 393 established the Education Management Accountability Board (EMAB).

The Secretary of Administration and Finance, serving as chief of staff to the EMAB, selected a team of auditors from the Department of Revenue's (DOR) Division of Local Services (DLS) to conduct the school district reviews. DOR's Director of Accounts is the chief investigator with authority to examine municipal and school department accounts and transactions pursuant to M.G.L. Ch. 44, §§45 and 46A. The reviews are conducted in consultation with the State Auditor and the Commissioner of Education.

The Braintree Public Schools (BPS) is the seventh school district reviewed under Executive Order 393. The audit team began the review of BPS in October 1998, and completed it in November 1998. As part of this review, the audit team conducted a confidential survey of employees of the school district and included the results in this report. School officials cooperated fully with the audit team.

The Executive Summary includes some of the more significant observations and findings of the review of BPS's operations. When possible, the audit team has identified and presented best practices which may be adapted by other school districts. The report discusses all results, best practices and deficiencies, if any, in greater detail in the "General Conditions and Findings" section.

# II. Executive Summary

# **Findings**

The findings are grouped into several broad categories addressed in the Education Reform Act: the Foundation Budget, Student Achievement, Governance and Management Powers, Student/Full Time Equivalent (FTE) Teacher Staffing, Teacher Compensation, Professional Development, Time and Learning, District Issues and Best Practices.

#### SUMMARY

BPS increased its combined municipal and school committee school district spending by \$4.9 million from FY93 through FY97, from \$24.8 million to \$29.7 million. Increased funding has been utilized for the hiring of teachers and rising special needs program costs. This has enabled BPS to achieve an overall low 14:1 student to teacher ratio. However, foundation budget spending in four key areas is significantly below foundation targets and professional development spending does not meet minimum per student spending requirements established by law.

School improvement plans appear to be used as a management tool and include systemwide goals geared toward student achievement. From an employee survey it is evident that teachers are generally clear about education reform related goals and objectives set by the administration. Principals are all under three year individual contracts. Performance evaluations are used but salary increases do not appear to be tied to performance. BPS appears to be making a reasonable effort to align its curriculum to the state curriculum frameworks.

BPS test scores generally exceed the state averages. In 1996, grades 4, 8 and 10 MEAP scores exceeded the state averages significantly in reading and social studies. The recently released MCAS scores show that the district scored above the state average scaled scores for all grades in all areas.

### THE FOUNDATION BUDGET

- BPS has exceeded the net school spending requirements as determined by the Department of Education (DOE) for FY94 through FY98. In FY98, the district's local and state percentages of actual net school spending were 89.5 percent and 10.5 percent respectively. FY97 salaries accounted for 75.2 percent of the school operating budget. [See Section 5 and Appendix A-1]
- FY97 SPED costs on a program basis accounted for \$4 million or 15.6 percent of the school budget excluding transportation and increased to \$4.7 million or 17.5 percent in FY98. [See Section 6]
- The foundation budget does not mandate spending in any specific category. However, to encourage appropriate levels of spending, M.G.L. Ch. 70, §9 requires that a school district report to the Commissioner of Education when it has failed to meet foundation budget spending levels for professional development, books, instructional equipment, extended/expanded programs and extraordinary maintenance. Although BPS did not meet these levels from FY94 to FY97, it did not file a report as required by law nor did DOE direct it to do so. Total spending exceeded the total foundation budget for FY94 to FY97. [See Section 7 and Appendix B1]

## STUDENT ACHIEVEMENT

BPS test scores are generally above the state average. Recently released MCAS scores show that BPS scored above the state average scaled scores for all grades in all areas. SAT scores for 1997 exceeded the state average by 10 points. MEAP scores for 1996 exceeded state averages by more than 50 points in reading and social studies. The 1997 statewide lowa tests indicated that 86 percent of BPS grade 3 students scored at the higher reading skill levels of "proficient" and "advanced" versus the state average of 75 percent. BPS grade 10 students scored at the 68th percentile in the lowa achievement test when compared to a representative national sample of students. [See Section 16 and Appendices C and D]

#### **GOVERNANCE AND MANAGEMENT POWERS**

- The Superintendent conducts monthly meetings with administrators, principals, curriculum directors and department heads. Issues discussed in these meetings include test scores, school safety, professional development, school improvements and systemwide objectives. Principals and curriculum directors follow-up with teachers to continue the flow of information encouraging feedback and new ideas. [See Section 17]
- Administrators and principals work under individual three year contracts. Contracts are similar in structure and content. They include general language for performance goals and annual evaluations. Specific goals and evaluation criteria are not part of contracts but are agreed to by the principals and the Superintendent annually. Evaluation procedures are utilized by the Superintendent. Principals have had individual three year contracts since 1995 with stated annual increases usually tied to union contract percentage increases for teachers and other staff. The Superintendent is not taking advantage of the management tools granted to him by the Education Reform Act since salary increases are not tied to performance. [See Section 17]

#### STUDENT/FTE TEACHER STAFFING

Between FY93 and FY97, the total number of FTE teachers increased by 36.1, or 12.2 percent, from 296.9 to 333.0. As a result, the all students/all FTE teachers ratio declined from 15.3:1 in FY93 to 14.3:1 in FY97, a positive trend for educational achievement. This ratio is significantly lower than the state average of 18.1:1. [See Section 8]

#### TEACHER COMPENSATION

- Between FY93 and FY97, expenditures for salaries rose \$4.6 million or 26.6 percent. Total teaching salaries rose \$3.1 million or 24.8 percent, reflecting additional spending for new staff as well as pay raises in teachers' contracts. Union contract annual increases plus step increases for teachers have increased by 44.5 percent for the five year period
- 1993 to 1997. The district FY97 average teacher salary reported to DOE of \$45,694 was \$2,820 or 6.6 percent higher than the state average of \$42,874. [See Section 9]

### PROFESSIONAL DEVELOPMENT

• BPS has not met the professional development legal minimum spending requirements for FY95 to FY97 nor the foundation budget targets for FY94 to FY97. Expenditures in FY94 represented only 4.7 percent of the foundation budget for professional development and 27.1 percent in FY97. [See Sections 7 and 10]

#### TIME AND LEARNING

• BPS met DOE's high school time requirement of 990 hours per year for the 1997/98 school year with a schedule of 994 hours. The middle school standard of 900 hours was exceeded by between 23 hours and 99 hours and the elementary school standard of 900 hours was exceeded by between 15 hours and 60 hours. [See Section 12]

#### **DISTRICT ISSUES**

- In verifying the accuracy of the enrollment numbers, the audit team noted a variance between the numbers maintained by BPS enrollment system and those reported to DOE on the October 1st foundation enrollment report. Specifically, the review of the data revealed that reports for FY95, FY96 and FY97 were understated by a combined total of 215 students due mostly to a failure to include tuitioned-out students. This reduced BPS state aid by an estimated \$13,825 total for these three fiscal years.
- In verifying the accuracy of budget records to expenditure reports submitted to DOE, the audit team noted that school related capital budget expenditures appropriated in the town budget were not reported correctly in the end-of-year report from FY89 through FY98. The audit team determined that certain unreported expenditures should have been reported as net school spending and suggested that the town accountant and school director of computer services convene to correct the FY98 submission using DOE's reporting requirements. The BPS director of computer services has been completing this report in lieu of the business manager. BPS has recently hired a business manager and preparation of future reports will be his responsibility.

### **BEST PRACTICES**

- Communication and coordination efforts play a key role in developing and implementing BPS instructional programs. The Superintendent meets three times per year with all school administrators as a group to address the following criteria: first to develop, next to review and finally to recommend new systemwide objectives. The school committee reviews and approves these objectives. Both principals and curriculum directors must submit a plan to the Superintendent to achieve their goals. Administrators encourage feedback from staff during the implementation process. The Superintendent follows-up on implementation by conducting monthly meetings with administrators in smaller groups. [See Section 17]
- BPS has developed programs for students with substantial learning difficulties that offer to educate students in their home community rather than tuitioning them out to a collaborative or private school setting. These programs provide students with a less restrictive environment, as well as, account for considerable cost-containment. [See Section 22]
- BPS has a homework policy which includes objectives and timeframes for expected homework at the elementary, middle and high school levels. It also includes guidelines for parents, teachers and administrators. The policy has been in use for over a decade and has been revised periodically. Administrators meet during the school year to review student adherence to the policy. Parents are sent a copy of the policy at the beginning of the school year and it is discussed on parents night and in monthly newsletters. Parental feedback is encouraged by the Superintendent and is used to reinforce the policy.
- In April 1998, BPS instituted a strict student policy concerning use or possession of tobacco products. According to the policy, students found smoking or in possession of tobacco products on school grounds are suspended and fined for the first offense. The fine for the first offense may be waived if the student participates in a smoking cessation program run by an accredited school nurse. The suspension time and mandatory dollar fine increases with successive offenses. This school year, there have been only four smoking related offenses reported as compared to over 70 in the last two school years. It is noteworthy that the BPS student council made the request for a strong anti-smoking policy.

# Auditee's Response

The audit team held an exit conference with the Superintendent and the assistant superintendent on December 21, 1998. The team invited BPS to suggest specific technical corrections and make a formal written response. Comments were received, changes were made as a result of these comments, and a revised report was provided to

the Superintendent. The Superintendent provided further comments which are contained in Appendix H.

# Review Scope

In preparation for the school district reviews, the audit team held meetings with officials from DOE, the State Auditor's Office and other statewide organizations such as the Massachusetts Taxpayers Foundation, the Massachusetts Municipal Association and the Massachusetts Association of School Superintendents. The audit team also read published reports on educational and financial issues to prepare for the school district reviews.

The audit team met with the private audit firm that conducts financial audits of BPS. In addition, DOE provided data including the end-of-year reports, foundation budgets, evaluations of test results for BPS students, as well as statewide comparative data. The DOR's Division of Local Services Municipal Data Bank provided demographic information, community profiles and overall state aid data. While on site, the audit team interviewed officials including, but not limited to, the school committee chair, the school Superintendent, the assistant superintendent, the director of computer services, curriculum directors and principals. Documents reviewed included both vendor and personnel contracts, invoices, payroll data, statistics on students and teachers as well as test results and reports submitted to DOE.

In keeping with the goals set out by the EMAB, the school district review was designed to determine whether or not basic financial goals related to education reform have been met. The audit team gathered data related to performance such as test scores, student to teacher ratios and class sizes to show results and operational trends. However, this report does not intend to present a definitive opinion regarding the quality of education in BPS, or its successes or failures in meeting particular education reform goals. Rather, it is intended to present a relevant summary of data to the EMAB for evaluation and comparison purposes.

The focus of this review was on operational issues. It did not encompass all of the tests that are normally part of a year-end financial audit such as: review of internal controls; cash reconciliation of accounts; testing compliance with purchasing and expenditure laws and regulations; and generally accepted accounting practices. The audit team tested financial transactions on a limited basis only. The audit team also excluded federal grants, revolving accounts and student activity accounts. The audit team did not test statistical data relating to enrollment, test scores and other measures of achievement. This report is intended for the information and use of EMAB and BPS. However, this report is a matter of public record and its distribution is not limited.

# **III.** General Conditions and Findings

# 1. Braintree Overview

The town of Braintree is classified as an economically developed suburb by DOE. Its 1996 population was 34,708, up 2.6 percent from 1990 but down 4.5 percent from 1980. It is located approximately 12 miles south of Boston and is governed by a five member board of selectmen, an executive secretary and a representative town meeting. The town owns and operates a self supporting water supply and distribution system and a self supporting electric generating and distribution facility. Health South/Braintree Hospital, Braintree's largest employer, employs 1,400 people. The town's largest taxpayer and owner of the South Shore Plaza, Braintree Properties, was valued in FY98 at \$127.6 million, or 5.5 percent of the town's taxable value.

Like many Massachusetts school districts, Braintree faced budgetary pressures in the early 1990's as a result of an economic recession and the associated decline in municipal state aid for education and in financial contributions to schools. Consequently, Braintree experienced a budget reduction in FY93 and found it necessary to reduce the number of total FTEs.

Charts 1-1 and 1-2 show some key demographic and economic statistics for Braintree.

Chart 1-1

#### Town of Braintree Demographic Data

1996 Population	34,708
FY98 Residential Tax Rate	\$12.87
FY98 Average Single Family Tax	\$2,055
FY98 Avg. Assessed Value Per Single Family	\$159,656
FY98 Tax Levy	\$40,420,594
FY98 State Aid	\$10,601,788
FY98 State Aid as % of Revenue	14.6%
1989 Per Capita Income	\$18,624
1996 Average Unemployment Rate	3.9%

Note: Data provided by DLS

BPS has participated in the Metropolitan Council for Education Opportunities, or METCO program, since 1966. METCO, established in 1963, is a voluntary program that offers minority children from Boston an opportunity to attend suburban schools. Braintree was reimbursed \$237,000 in FY98 state aid for its participation in METCO.

As of our audit date, the Superintendent has been in this position for 8 years, the assistant superintendent has worked for BPS for 35 years and the business manager was hired this school year. BPS informed the audit team that the assistant superintendent had been performing the duties of business manager since that person's retirement 14 years ago. However, increased responsibilities upon the assistant superintendent generated the need to separate this responsibility and reappoint a business manager.

The assistant superintendent reports directly to the Superintendent as do the business manager and principals. The director of computer services and curriculum directors report directly to the assistant superintendent. This line of reporting is understood by those involved even though the organization chart does not clearly reflect this structure. The audit team recommended to BPS that its organization chart be reviewed and adjusted accordingly.

As of our audit date, BPS consists of 1 high school, 2 middle schools, 7 elementary schools and 1 kindergarten satellite school. The town belongs to the Blue Hills regional vocational school for grades 9 through 12. The central administration offices will move in early 1999 from the Hollis elementary school to the Colbert school to allow for more classroom space at the Hollis elementary. A BPS space needs study committee reported the need for additional classroom space to accommodate student enrollment projections.

The school department does not charge for busing of students in grades K through 6. If they choose to be bused, students in grades 7 through 12 must pay \$180 per student per year with a maximum fee of \$250 per family. Families with a financial hardship may have their fee reduced or waived. Beginning in FY99, school buses are on a 3 year lease to BPS. The school bus drivers are employees of BPS. Prior to this, school bus transportation was contracted out. BPS has indicated to the audit team that leasing the buses is projected to save the system over \$200,000 per year. This savings includes \$108,000 in projected school bus fees that will be paid directly to the district.

BPS high school graduating class of 1997 indicated that 79.1 percent intended to go on to a 2 or 4 year college, a rate higher than the 71.9 percent state average. The percent of graduates planning to go to work was 11.9 percent, a rate lower than the state average of 16.8 percent. In 1997, the high school dropout rate was 1.5 percent, less than half the state average of 3.4 percent.

#### Chart 1-2

Braintree Public Schools Demographic Data 1997/98

#### Braintree Public Schools Demographic Data 1997/98

	BPS	State Average
Enrollment: Race / Ethnicity		
White	93.5%	77.5%
Minority	6.5%	22.5%
Limited English Proficiency	0.6%	4.8%
Special Education	16.8%	16.6%
Percentage Attending Private School -1997	7.0%	10.6%
High School Drop-Out Rate 1997	1.5%	3.4%
Plan of Graduates Class of '97		
4 Year College	62.1%	53.4%
2 Year College	17.0%	18.5%
2 or 4 Year College	79.1%	71.9%
Work	11.9%	16.8%

Note: Data provided by DOE. Special Education data as of June 1998.

*Chart 1-3* illustrates BPS enrollment trend from October 1988, the 1988/89 school year to October 1997, the 1997/98 school year. Enrollments projected by the district are shown from October 1998 to October 2003. The October 1998 enrollment is considered a projection because it is not considered final at the time of this audit. All enrollments are as of October 1 of each year.

#### Chart 1-3

Braintree Public Schools Actual and Projected Student Enrollment School Years 1988/89 to 2002/03



Note: Enrollment as of October 1st. Data obtained from BPS. A solid line represents actual enrollment; a dotted line represents projected enrollmer

As shown in *Chart 1-3a*, enrollment has increased from 4,449 in October of the 1988/89 school year, to 4,925 in October of the 1997/98 school year. Total BPS enrollment increased by 10.7 percent during this time period, a lower rate of increase than the state increase of 15.1 percent. The chart shows a total enrollment increase in each year except for the 1989/90 school year. Enrollment projections show increasing enrollments, especially at the elementary and high school levels.

BPS officials are aware of these projections and the impending pressure at the middle school level where extra classroom space is not available and at the elementary level where classroom space is very limited. Based on these projections, a recent space study committee suggested certain space options and recommended continued monitoring of the situation.

#### Chart 1-3a

	Elementary		Middle	High	Tuitioned	
	School		School	School	Out	Total
School Year	Pre K & K	1 - 5	6 - 8	9 - 12		Enrollment
88-89	368	1,718	985	1,330	48	
89-90	389	1,782	980	1,235	38	4,424
90-91	393	1,784	1,036	1,180	47	4,440
91-92	360	1,887	1,021	1,224	45	4,537
92-93	365	1,934	1,058	1,189	46	4,592
93-94	439	1,944	1,042	1,218	41	4,684
94-95	346	2,007	1,112	1,222		4,687
95-96	408	1,973	1,171	1,218		4,770
96-97	436	1,979	1,136	1,250		4,801
97-98	405	2,035	1,205	1,280		4,925
98-99	420	2,045	1,178	1,387		5,030
99-00		2,474	1,192	1,391	47	5,104
00-01		2,543	1,189	1,397	47	5,176
01-02		2,658	1,191	1,396	47	5,292
02-03		2,658	1,180	1,411	47	5,296
BPS 89-98						
% Change	10.1%	18.5%	22.3%	-3.8%		10.7%
State 89-98						
% Change	20.7%	22.1%	21.8%	2.8%		15.1%
BPS 98-03						
% Change		8.9%	-2.1%	10.2%		7.5%

# Braintree Public Schools Actual and Projected Student Enrollment

Note: Data obtained from BPS. Projections for grades 1-5 include Pre K & K. Tuitioned out ungraded students shown as reported by district.

The following *chart 1-4* illustrates the relative growth in the elementary schools in contrast to the middle and high school levels expressed in terms of percentage of total enrollment.

Chart 1-4

	Elementary		Middle	High	Tuitioned		
	School		School	School	Out	Total	
School Year	Pre K & K	1 - 5	6 - 8	9 - 12	Ungraded	Enrollment	
88-89	8.3%	38.6%	22.1%	29.9%	1.1%	100.0%	
89-90	8.8%	40.3%	22.2%	27.9%	0.9%	100.0%	
90-91	8.9%	40.2%	23.3%	26.6%	1.1%	100.0%	
91-92	7.9%	41.6%	22.5%	27.0%	1.0%	100.0%	
92-93	7.9%	42.1%	23.0%	25.9%	1.0%	100.0%	
93-94	9.4%	41.5%	22.2%	26.0%	0.9%	100.0%	
94-95	7.4%	42.8%	23.7%	26.1%	0.0%	100.0%	
95-96	8.6%	41.4%	24.5%	25.5%	0.0%	100.0%	
96-97	9.1%	41.2%	23.7%	26.0%	0.0%	100.0%	
97-98	8.2%	41.3%	24.5%	26.0%	0.0%	100.0%	
98-99	8.3%	40.7%	23.4%	27.6%	0.0%	100.0%	
99-00	0.0%	48.5%	23.4%	27.3%	0.9%	100.0%	
00-01	0.0%	49.1%	23.0%	27.0%	0.9%	100.0%	
01-02	0.0%	50.2%	22.5%	26.4%	0.9%	100.0%	
02-03	0.0%	50.2%	22.3%	26.6%	0.9%	100.0%	
Percentage Point							
Change 88/8	9 to						
02/03		11.6	0.2	-3.3	N/A		

# Braintree Public Schools Distribution of Enrollment by Type of School

Note: Data obtained from BPS. Projections for grades 1-5 include pre K and K. Tuitioned out ungraded students shown as reported by district

In verifying the accuracy of the enrollment numbers, the audit team noted a variance between the numbers maintained by BPS enrollment system and those reported to DOE on the October 1 foundation enrollment report. Specifically, our review of the data revealed that reports for FY95, FY96 and FY97 were understated by a combined total of 217 students due generally to a failure to include tuitioned out students. The undercounting reduced BPS state aid by an estimated \$13,975 total for these three fiscal years.

# 2. School Finances

Overall, BPS has benefited from additional funds available due to education reform. As state aid increased from \$1.9 million in FY94 to \$3.0 million in FY98, the combination of state education aid and the local share allowed the district to hire more teachers, to fund

additional SPED costs, to increase salaries and to spend for new academic initiatives.

School district funding and financial reporting requirements are generally complex and become especially complicated in the context of education reform. A district annually determines how much money it will spend on education. However, DOE considers only certain expenditures and funding when determining whether or not a district meets education reform requirements.

This audit examines school funding primarily from three perspectives: the school committee budget; net school spending; and the foundation budget.

The audit team examined the school committee budget in some detail as a matter of practice because it reflects basic financial and educational decisions, provides an overview of financial operations and indicates how the community expects to meet the goals and objectives of education reform.

Net school spending, the sum of the required minimum contribution from local revenues plus state chapter 70 education aid, is a figure issued annually by DOE that must be met by school districts under education reform.

The foundation budget is a school spending target under education reform which the school district should meet. Calculated on the basis of pupil characteristics and community demographics, it is designed to insure that a minimum level of educational resources is available per student in each school district. Under education reform, all school districts are expected to meet their foundation budget targets by the year 2000

#### 3. School Committee Budget Trend

*Chart 3-1* illustrates the school committee budget trend from FY89 to FY98. For this purpose, the budget includes annual and special town meeting appropriations for support of the schools as well as capital improvement and equipment appropriations voted as separate articles. Separate appropriations for the vocational school assessment and for employee benefits (included as part of all town employee benefits in the town budget) are not included.

The total school committee budget as defined above increased by \$106,000, or 0.5 percent between FY89 and FY93. The FY92 budget of \$21.9 million decreased to \$20.9 million in FY93 due to town budget constraints. With education reform aid, the budget increased between FY93 and FY97 by \$6.2 million or 29.7 percent. The FY98 budget further increased over FY97 by \$1.7 million or 6.3 percent.

In constant dollars, where FY92 is set at 100, the chart illustrates how the school committee budget fared with respect to inflation over time. From FY89 to FY97, the school committee budget as defined above increased from \$23 million to \$24 million, a 4.3 percent increase in constant dollars. From FY93 to FY97, it increased \$3.6 million or 17.6

percent in constant dollars, from \$20.4 million to \$24.0 million. In constant dollars, BPS experienced net budget decreases in 5 of the last 9 years.

Chart 3-1

#### Braintree Public Schools School Committee Budgets in Actual and Constant Dollars FY89 - FY98



Note: Data obtained from BPS and town of Braintree. Years are in fiscal years.

In the town budget process, departments may request a reserve fund transfer from the finance committee and/or further request, through subsequent town meeting action, an article to pay for bills of the prior fiscal year. The school department, because of extraordinary SPED related expenses, has requested and has received extra funds in the past for this purpose. For FY99, however, the finance committee has indicated to the school department that extraordinary SPED costs must be funded from within the school committee's budget.

# 4. Total School District Expenditures

Total school district expenditures includes expenditures by the school committee and expenditures by the town for school purposes as reported in the DOE end-of-year report. FY93 includes state per pupil aid. Total school district expenditures increased between FY89 and FY93 by \$1.8 million or 7.8 percent. Expenditures increased between FY93 and FY97 by \$4.9 million or 19.8 percent.

Expenditures paid for by the town for school purposes were \$3.4 million in FY93 and decreased to \$3.1 million in FY97. In FY97, the major components were \$1.2 million for employee insurance, \$653,000 for the regional school assessment and \$671,000 for retirement contributions.

From FY95 to FY96, town costs decreased by \$300,000 due to health insurance expenditures and from FY96 to FY97 increased by \$400,000 due to health insurance

expenditures. Town expenditures for FY97 are adjusted due to certain technology expenditures not reported in previous years. *Chart 4-1* illustrates Braintree's total school district expenditures from FY89 to FY98.

Chart 4-1

#### Braintree Public Schools Total School District Expenditures (in millions of dollars)

	FY89	FY93	FY94	FY95	FY96	FY97	FY98
School Committee	\$20.1	\$21.4	\$22.6	\$24.1	\$24.8	\$26.6	\$28.3
Town	\$2.9	\$3.4	\$2.9	\$3.0	\$2.7	\$3.1	\$2.8
Total	\$23.0	\$24.8	\$25.5	\$27.1	\$27.5	\$29.7	\$31.1

Note: Data obtained from BPS

*Chart 4-2* shows the FY94 to FY98 trend in net school spending per student. It indicates that actual net school spending per student has increased from \$5,131 in FY94 to \$5,728 in FY97, or 11.6 percent. The inflation adjusted figures have also increased from \$4,891 in FY94 to \$5,069 in FY97, or 3.6 percent in 1992 dollars.

#### Chart 4-2

Braintree Public Schools Net School Spending Per Student Actual and Constant (1992=100) Dollars

	FY94	FY95	FY96	FY97	FY94-FY97 Change	FY98
Expenditures / Student in Actual \$	\$5,131	\$5,419	\$5,367	\$5,728	11.6%	\$5,827
Expenditures / Student in 1992 \$	\$4,891	\$5,013	\$4,857	\$5,069	3.6%	\$5,112

Note: Data obtained from BPS

#### 5. Net School Spending Requirements

Pursuant to the education reform law, DOE develops annual spending requirements and budget targets for each school district. The requirements are based on a formula which is

used to set specific minimum spending requirements and in combination with other factors is also used to set "foundation" budget targets as well as determining the amount of state aid for each district.

Each school district must meet a net school spending requirement. Expenditures which count towards a district's "net school spending" generally include all education related expenditures paid for with state aid under Chapter 70 and municipal appropriations used for that purpose. Excluded from the net school spending definition are expenditures for school transportation, school lunch, school construction and certain capital expenditures. Expenditures from federal funds and from school revolving accounts are also excluded.

As indicated in *Chart 5-1*, the recommended foundation budget target which is the ultimate spending goal for the district, has been increased from \$23.0 million in FY94 to \$26.9 million in FY98, a 17 percent increase. During this same time period, required net school spending, the amount the district must spend to move towards the foundation budget target, increased by 16.5 percent, from \$23.6 million to \$27.5 million. Actual net school spending increased by 19.6 percent, from \$24.0 million to \$28.7 million. Both required and actual net school spending amounts exceed the foundation for each fiscal year shown. Actual net school spending also exceeds the required amount for each fiscal year shown.

#### Chart 5-1

#### Braintree Public Schools Foundation Budget and Net School Spending (NSS) (in millions of dollars)

	FY94	FY95	FY96	FY97	FY98
Foundation Budget Target	\$23.0	\$23.8	\$25.2	\$26.0	\$26.9
Required NSS as % of Foundation	102.6%	104.6%	101.3%	100.2%	102.2%
Required Net School Spending	\$23.6	\$24.9	\$25.5	\$26.1	\$27.5
Actual Net School Spending	\$24.0	\$25.4	\$25.6	\$27.5	\$28.7
Variance \$	\$0.4	\$0.5	\$0.1	\$1.4	\$1.2
Variance %	۵.4 1.7%	2.0%	0.4%	φ1. <del>4</del> 5.4%	φ1.2 4.4%
Actual NSS as % of Foundation	104.3%	106.7%	101.7%	105.6%	106.7%
Note: Data obtained from DOE					

Note: Data obtained from DOE

*Chart 5-2* indicates that state aid, as a percent of actual net school spending, has increased from 7.9 percent in FY94 to 10.5 percent in FY98, while the local share has decreased from 92.1 percent in FY94 to 89.5 percent in FY98.

## Chart 5-2

#### **Braintree Public Schools Net School Spending** (in millions of dollars)

	FY94	FY95	FY96	FY97	FY98
Required Local Contribution	\$21.7	\$22.9	\$23.1	\$23.4	\$24.5
Actual Local Contribution	\$22.1	\$23.4	\$23.3	\$24.8	\$25.7
Variance \$	\$0.4	\$0.5	\$0.2	\$1.4	\$1.2
Variance %	1.8%	2.2%	0.9%	6.0%	4.9%
Required Net School Spending	\$23.6	\$24.9	\$25.5	\$26.1	\$27.5
Actual Net School Spending	\$24.0	\$25.4	\$25.6	\$27.5	\$28.7
Local Share \$	\$22.1	\$23.4	\$23.3	\$24.8	\$25.7
State Aid \$	\$1.9	\$2.0	\$2.3	\$2.7	\$3.0
Local Share %	92.1%	92.1%	91.0%	90.2%	89.5%
State Aid %	7.9%	7.9%	9.0%	9.8%	10.5%

Note: Data obtained from DOE

#### 6. School Committee Program Budget

Within the context of education reform and improving student achievement, the audit team tries to establish what a school district budgets and spends on academic courses such as English and science versus other subjects or programs. Program budgets are generally intended to show the total financial resources for a particular program or activity. Well developed program budgets include goal statements, planned actions and expected outcomes along with the total amount of resources required to achieve the objectives. In the school environment, a program budget for mathematics, for example, would show salaries for mathematics teachers and related costs such as supplies, textbooks, etc. It would also indicate the expected outcomes for the budget year.

For public review, BPS produces a budget with three budget categories (Personnel, Materials, Supportive) and line items which follow DOE's spending categories (1000 series for administration, 2000 series for instruction, etc.). For internal purposes, BPS produces a program based expenditure report that was developed in FY92. The charts in this section summarize the program report while Appendix A-1 summarizes the line item budget by the three budget categories.

*Chart 6-1* summarizes the school committee budget for FY93, FY95, FY97 and FY98. The school transportation budget has been excluded from this data to approximate net school spending.

According to *Chart 6-1*, budgeted amounts for SPED, kindergarten through elementary education and certain core subjects increased most in dollars between FY93 and FY97. SPED increased by \$1.18 million or 42.2 percent during this time period. SPED costs increased by another 16.9 percent from FY97 to FY98.

Chart 6-1

#### Braintree Public Schools School Committee Program Budget - Key Areas (in thousands of dollars)

				FY93 - FY97		
	FY93	FY95	FY97	\$ Diff	% Diff	FY98
Certain Core Subjects	\$4,269	\$4,722	\$5,104	\$835	19.6%	\$5,373
Central Office Admin.	\$427	\$475	\$485	\$58	13.6%	\$512
School Admin.	\$1,095	\$1,279	\$1,374	\$279	25.5%	\$1,451
Computer Services	\$180	\$286	\$329	\$149	82.8%	\$321
Maint. And Custodial	\$1,676	\$1,896	\$2,098	\$422	25.2%	\$1,982
K - Elementary	\$4,151	\$4,802	\$5,103	\$952	22.9%	\$5,115
SPED	\$2,799	\$3,436	\$3,979	\$1,180	42.2%	\$4,650
Utilities	\$646	\$527	\$578	(\$68)	-10.5%	\$951
All Other	\$5,035	\$5,847	\$6,502	\$1,467	29.1%	\$6,149
Total	\$20,278	\$23,270	\$25,552	\$5,274	26.0%	\$26,504

Note: Data obtained from BPS. School transportation and employee benefits are not included. Core subjects included here are English, mathematics, science and social studies. All other includes various subjects not included as core.

Personnel, materials and supportive services budgets for FY89, FY93, FY97 and FY98 are shown in *Appendix A-1*. This appendix shows budget increases in personnel and SPED tuition costs from FY93 to FY97. The Appendix includes budgeted transportation.

*Chart 6-1a* shows the same program budget data on a percentage distribution basis to illustrate how particular budget items have changed since FY93 in certain areas.

#### Chart 6-1a

#### Braintree Public Schools School Committee Program Budget - Key Areas Percentage Distribution

				% Point Incr / Decr.	
	FY93	FY95	FY97	FY93 - FY97	FY98
Certain Core Subjects	21.1%	20.3%	20.0%	-1.1%	20.3%
Central Office Admin.	2.1%	2.0%	1.9%	-0.2%	1.9%
School Admin.	5.4%	5.5%	5.4%	0.0%	5.5%
Computer Services	0.9%	1.2%	1.3%	0.4%	1.2%
Maint. And Custodial	8.3%	8.1%	8.2%	-0.1%	7.5%
K - Elementary	20.5%	20.6%	20.0%	-0.5%	19.3%
SPED	13.8%	14.8%	15.6%	1.8%	17.5%
Utilities	3.2%	2.3%	2.3%	-0.9%	3.6%
All Other	24.8%	25.1%	25.4%	0.6%	23.2%
Total	100.0%	100.0%	100.0%	0.0%	100.0%

Note: Data obtained from BPS. School transportation and employee benefits are not included. Core subjects included here are English, mathematics, science and social studies. Percentages may not add due to rounding. All other includes various subjects not included as core.

*Chart 6-2* provides a further look at teachers' salaries by selected disciplines. This chart indicates that the certain core subjects, SPED and elementary teachers' salary budgets increased the most in dollar terms of the disciplines shown from FY93 to FY97. Their increase also extended into FY98.

#### Chart 6-2

#### Braintree Public Schools Budgeted Teaching Salaries - Selected Disciplines (in thousands of dollars)

				FY93	- FY97	
Discipline	FY93	FY95	FY97	\$ Incr / Decr	% Incr / Decr	FY98
Certain Core Subjects	\$3,911	\$4,304	\$4,585	\$674	17.2%	\$4,719
Art and Music	\$790	\$930	\$970	\$180	22.8%	\$995
Kindergarten	\$378	\$413	\$500	\$122	32.3%	\$467
Physical Education	\$631	\$697	\$724	\$93	14.7%	\$721
SPED	\$1,618	\$1,994	\$2,168	\$550	34.0%	\$2,570
Elementary	\$3,773	\$4,389	\$4,603	\$830	22.0%	\$4,648
Reading	\$181	\$175	\$218	\$37	20.4%	\$193
Foreign Language	\$531	\$585	\$618	\$87	16.4%	\$675
Total Selected	\$11,813	\$13,487	\$14,386	\$2,573	21.8%	\$14,988

Note: Data obtained from BPS. Core subjects included here are English, math, science and social studies.

*Chart 6-2a* shows the same program budget data on a percentage distribution basis to illustrate how budgeted teaching salaries in selected disciplines have changed since FY93.

#### *Chart 6-2a* Braintree Public Schools Distribution of Teachers' Salaries - Selected Disciplines

Discipline	FY93	FY95	FY97	FY93 - FY97	FY98
Certain Core Subjects	33.1%	31.9%	31.9%	-1.2%	31.5%
Art and Music	6.7%	6.9%	6.7%	0.1%	6.6%
Kindergarten	3.2%	3.1%	3.5%	0.3%	3.1%
Physical Education	5.3%	5.2%	5.0%	-0.3%	4.8%
SPED	13.7%	14.8%	15.1%	1.4%	17.1%
Elementary	31.9%	32.5%	32.0%	0.1%	31.0%
Reading	1.5%	1.3%	1.5%	0.0%	1.3%
Foreign Language	4.5%	4.3%	4.3%	-0.2%	4.5%
Total All Selected	100%	100%	100%		100%

Note: Data obtained from BPS. Core subjects included here are English, math, science and social studies. Percentages may not add due to rounding

Budgeted teachers salaries are detailed by selected disciplines in Appendix A-2.

# 7. Foundation Budget

The foundation budget is a target level of spending developed to insure that a minimum level of education resources is available per student in each school district. The foundation budget shown in *Appendix B* is determined by a number of factors including enrollment, staffing and salary levels. The key items in the foundation budget include: payroll; non-salary expenses; professional development; expanded programs; extraordinary maintenance; and books and instructional equipment. DOE calculates each of these budget items using the previous year's end-of-year pupil enrollment with adjustments for special education, bilingual and low-income students. Certain salary levels and full time equivalent (FTE) standards are used to calculate salary budgets which also include annual adjustments for inflation.

The foundation budget establishes spending targets by grade (pre-school, kindergarten, elementary, junior high and high school) and program (special education, bilingual, vocational and expanded or after-school activities). Grade and program spending targets are intended to serve as guidelines only and are not binding on local school districts. However, to encourage appropriate levels of spending, M.G.L. Ch.70, §9 requires that a school district report to the Commissioner of Education when it has failed to meet foundation budget spending levels for professional development, books and instructional

equipment, extended/expanded programs and extraordinary maintenance. According to *Chart 7-1,* expenditures did not reach foundation budget in any of these categories for the fiscal years shown as well as for FY95. BPS did not file a report with the Commissioner's office as required by Ch.70, §9 for these fiscal years nor did DOE direct BPS to submit such report.

#### Chart 7-1

#### Braintree Public Schools Net School Spending According to Foundation Budget (in thousands of dollars)

	FY94		FY	′96	FY97	
-	Actual	Budget	Actual	Budget	Actual	Budget
Professional Development	\$17	\$364	\$100	\$399	\$112	\$413
Books and Equipment	\$492	\$1,311	\$683	\$1,408	\$612	\$1,453
Expanded Program	\$0	\$87	\$0	\$167	\$0	\$178
Extraordinary Maintenance	\$0	\$687	\$0	\$749	\$0	\$777

#### Expenditures As Percentage of Foundation Budget

	FY94	FY96	FY97
	NSS/FND	NSS/FND	NSS/FND
Professional Development	4.7%	25.0%	27.1%
Books and Equipment	37.5%	48.5%	42.1%
Expanded Program	0.0%	0.0%	0.0%
Extraordinary Maintenance	0.0%	0.0%	0.0%

Note: Data obtained from DOE

Appendix B shows the BPS foundation budget for FY94, FY96 and FY97. For each year, the chart shows expenditures and variances from the foundation budgets as well as how expenditures compare with the foundation budgets. Although specific spending levels were not met, total spending exceeded the total foundation budget for FY94 to FY97. For FY97, spending was greater than the foundation budget target for teaching salaries by \$5.6 million, but was less than the foundation budget target for support salaries by \$2.1 million.

# 8. Staffing – Full Time Equivalent (FTE) Trends

Since salaries comprise approximately 73.7 percent of FY97 total school district expenditures, budget changes closely reflect changes in staffing or FTEs. One of BPS's major priorities is to keep the student/teacher ratio as low as possible within fiscal constraints. It appears that BPS is successful in this area.

According to *Chart 8-1*, BPS had a total of 523 FTEs including 320 teachers in FY89. By FY93, these numbers had dipped to 472 and 297 respectively, as fiscal pressures forced reductions in staff. With the assistance of education reform, staffing has increased each year and by FY97, total FTEs reached 517 with 333 teaching FTEs. In this context, teachers exclude instructional assistants. Para-professionals, guidance counselors, psychologists, occupational and physical therapists, cafeteria, custodians and maintenance personnel are included as all others in the chart.

As *Chart 8-1* indicates, BPS went through a period of staff reductions between FY89 and FY93, reducing FTEs by 51 including 23 teaching positions. Due to increased state aid, staffing increased by 9.4 percent between FY93 to FY97, as 45 FTEs including 36 teaching FTEs were added during this period. This addition of 36 teaching FTEs represented an increase of 12.2 percent from FY93 to FY97. This compares to a total student enrollment increase of 4.6 percent from FY93 to FY97.

Over the FY89 to FY97 period, schools in the district experienced a decline in staff of 1.2 percent while teachers rose by 4.1 percent, lower than the enrollment increase of 7.9 percent from FY89 to FY97.

#### Chart 8-1

#### Braintree Public Schools Staffing Trends Full Time Equivalents (FTE)

			Teachers as	% Instruct.		All
	Total FTEs	Teachers	of FTEs	Assists.	Administrators	Others
FY89	523.0	320.0	61.2%	6.0	28.7	174.3
FY93	472.1	296.9	62.9%	6.0	22.7	152.5
FY97	516.7	333.0	64.4%	7.4	23.6	160.1
FY89-93	-50.9	-23.1		0.0	-6.0	-21.8
Incr./ Decr.	-9.7%	-7.2%		0.0%	-20.9%	-12.5%
FY93-97	44.6	36.1		1.4	0.9	7.6
Incr. / Decr.	9.4%	12.2%		23.3%	4.0%	5.0%
FY89-97	-6.3	13.0		1.4	-5.1	-14.2
Incr. / Decr.	-1.2%	4.1%		23.3%	-17.8%	-8.1%

Note: Data obtained from BPS. FTEs are budgeted.

*Chart 8-2* shows changes in teaching FTEs by type of school or program. The largest increase in teachers occurred at the middle school level between FY93 and FY97, when

18.6 FTEs were added, a 30 percent increase. High school and elementary school teacher FTEs increased by only 3.3 and 6.2 FTEs respectively, or 4.4 and 5.5 percent.

#### Chart 8-2

#### Braintree Public Schools Teachers By Program Full Time Equivalents (excluding teaching aides)

				FY9	3 - FY97
	FY89	FY93	FY97	Increase	% Incr / Decr
Early Childhood	9.0	8.0	10.0	2.0	25.0%
Elementary	115.2	112.0	118.2	6.2	5.5%
Middle	68.0	61.1	79.7	18.6	30.4%
High School	82.4	74.2	77.5	3.3	4.4%
Systemwide	3.0	2.0	1.0	-1.0	-50.0%
Subtotal	277.6	257.3	286.4	29.1	11.3%
Bilingual	0.0	0.0	0.0	0.0	N/A
ESL	0.0	0.0	2.0	2.0	N/A
Special Education	42.4	39.6	44.6	5.0	12.6%
Subtotal	42.4	39.6	46.6	7.0	17.7%
Total	320.0	296.9	333.0	36.1	12.2%

Note: Data obtained from BPS. FTEs are budgeted.

Student/teacher ratios increased slightly between FY89 and FY93 and then decreased between FY93 and FY97 as shown in *Chart 8-3*. The overall ratio for students and teachers was 13.8:1 in FY89. It increased slightly to 15.3:1 in FY93 and declined to 14.3:1 by FY97. The FY97 ratio, however, is still higher than the FY89 ratio. When adjusted for the number of SPED and ESL teachers, using the same total student population for illustration purposes, the resulting all student ratios would be somewhat higher as illustrated in *Chart 8-3*.

Chart 8-3

#### Braintree Public Schools Students Per Teacher

	FY89	FY93	FY97
All Students / All Teachers - Braintree All Students / All Teachers - State Average	13.8 <b>13.8</b>	15.3 <b>15.1</b>	14.3 <b>14.5</b>
All Students / Non-SPED, ESL & Bilingual - Braintree All Students / Non-SPED, ESL & Bilingual - State Average	16.2 <b>17.2</b>	17.7 <b>19.2</b>	16.8 <b>18.4</b>
All Students / All Teachers			
Kindergarten	20.4	22.8	21.8
Elementary Schools	14.9	17.3	16.7
Middle Schools	14.5	17.3	14.3
High School	16.1	16.0	16.1

Note: Data obtained from BPS, state average data obtained from DOE

Teaching staff increased in most core subject areas such as English, science and social studies with a slight decrease in mathematics as shown in *Chart 8-4*. These increases are generally in line with enrollments. The increase has offset positions lost due to cutbacks in prior years. FY97 staffing levels are higher than they were in FY89 in most subjects shown.

#### Chart 8-4

#### Braintree Public Schools Teachers - Core Subjects High and Middle School FTEs

				FY93 - FY97			
	FY89	FY93	FY97	Increase	% Incr / Decr		
English	27.3	24.1	29.8	5.7	23.7%		
Mathematics	24.7	24.8	24.3	-0.5	-2.0%		
Science	23.7	21.2	23.8	2.6	12.3%		
Social Studies	22.8	21.0	23.6	2.6	12.4%		
Total	98.3	91.1	101.5	10.4	11.4%		

Note: Data obtained from BPS

#### 9. Payroll – Salary Levels, Union Contracts

Expenditures for salaries are reviewed to determine how the school district has increased expenditures for teachers and how teaching salaries have increased as a result of union contract agreements.

Chart 9-1 indicates how school salaries have increased in comparison to total school district expenditures. BPS increased its expenditures for salaries by \$4.6 million between FY93 and FY97, an increase of 26.6 percent. This increase is 6.8 percentage points above the 19.8 percent increase in total school district expenditures during the same period. Total salaries made up 69.8 percent of these expenditures in FY93 and increased to 73.7 percent in FY97. This chart includes fringe benefits.

Of the \$4.9 million total school expenditure increase from FY93 to FY97, \$4.6 million is attributable to salaries. Of this \$4.6 million salary increase, \$3.1 million, or 67.4 percent, applied to teaching salaries and \$1.5 million, or 32.6 percent, applied to non-teaching salaries. The latter group includes administrators, para-professionals, clerical staff, custodial staff, etc.

#### Chart 9-1 **Braintree Public Schools** Salary Expenditures Compared to Total District Expenditures (in millions of dollars)

							FY93 - FY9	97
	FY89	FY93	FY94	FY95	FY96	FY97	\$ Incr. / Decr. % In	cr. / Decr.
Total School District Expenditures	\$23.0	\$24.8	\$25.5	\$27.1	\$27.5	\$29.7	\$4.9	19.8%
Total Salaries	\$16.2	\$17.3	\$18.9	\$20.2	\$20.5	\$21.9	\$4.6	26.6%
as % of Total Expenditures	70.4%	69.8%	74.1%	74.5%	74.5%	73.7%	93.9%	
Teaching Salaries	\$11.2	\$12.5	\$13.5	\$14.6	\$14.5	\$15.6	\$3.1	24.8%
as % of Total Salaries	69.1%	72.3%	71.4%	72.3%	70.7%	71.2%	67.4%	
Non-Teaching Salaries	\$5.0	\$4.8	\$5.4	\$5.6	\$6.0	\$6.3	\$1.5	31.3%
as % of Total Salaries	30.9%	27.7%	28.6%	27.7%	29.3%	28.8%	32.6%	

Note: Data obtained from BPS

Chart 9-2 shows that the average teacher's salary increased from \$40,532 to \$45,694 between FY93 and FY97. The FY97 average teacher's salary of \$45,697 is above the state average salary of \$42,874 reported by DOE.

Chart 9-2

#### Braintree Public Schools Teaching Salaries and Teachers (FTE) Average Salary Comparison

	FY89	FY93	FY94	FY95	FY96	FY97
Teaching Salaries ( \$ in mil )	\$11.2	\$12.5	\$13.5	\$14.6	\$14.5	\$15.6
FTE - Teachers	320.5	308.4	306.9	318.6	314.9	341.4
FTE Incr. / Decr. from Previous Year	N/A	2.4	-1.5	11.7	-3.7	26.5
Average Salary per FTE	\$34,945	\$40,532	\$43,988	\$45,825	\$46,046	\$45,694
DOE Reported State Average	N/A	\$38,681	\$39,012	\$40,718	\$41,760	\$42,874

Note: FTE excludes adult education teachers. Average salary per FTE consists of all salaries (i.e. assistant principals, advisors, coaches etc.), step increases, longevity and differentials. Data obtained from BPS and DOE end-of-year reports

Of the additional \$3.1 million spent for teaching salaries between FY93 and FY97 as shown in *Chart 9-2a*, \$1.3 million or 41.9 percent represents the cost of new positions and \$1.8 million or 58.1 percent represents salary increases for existing teaching staff. According to BPS officials, approximately 80 percent of BPS teachers are at the top step.

#### Chart 9-2a

#### Braintree Public Schools Salary Expenditures Cost of New Positions and Salary Increases (in millions of dollars)

			% of
	FY93	FY97	Cum. Incr.
Total Teaching Salary Exp.	\$12.5	\$15.6	
Cumulative Increase from FY93		\$3.1	100%
Cost of 3% Inflationary Increase		\$1.6	51.6%
FY93-FY97 Cost of New Positions		\$1.3	41.9%
Subtotal		\$2.9	93.5%
Amount above 3% Annual Increas	е	\$0.2	6.5%
Note: Analysis based on data obtained f	rom RP	\$	

Note: Analysis based on data obtained from BPS

Chart 9-2b indicates that increases due to annual contracts and steps ranged between 6 percent and 11 percent per year from the 1993 to 1997 time period.

Chart 9-2b

#### **Braintree Public Schools Teachers Salaries - Step and Contract Percent Increases**

Period	1993	1994	1995	1996	1997	Total
Annual Contract Increase	0.0%	4.5%	5.0%	2.0%	3.0%	14.5%
Step Increase	6.0%	6.0%	6.0%	6.0%	6.0%	30.0%
Total	6.0%	10.5%	11.0%	8.0%	9.0%	44.5%

Note: Data obtained from BPS

As shown in Chart 9-3, a review of salary changes over the FY93 to FY97 period indicates that the step 11 salary level increased by 15.3 percent without including step increases or lane changes. This represents the minimum increase a full time teacher would receive exclusive of raises due to step changes or obtaining an advanced academic degree. In contrast, the state and local government implicit price deflator indicates about a 10.2 percent inflationary trend for the FY93 to FY97 period.

Chart 9-3 shows how BPS salary schedules might apply to a particular teacher for the period of FY93 to FY97 depending on the step and academic degree. Various examples outline different situations. The chart illustrates so-called lane changes due to credit hours taken or degree earned such as BA to MA and an MA to MA+30.

For example, as of FY93, teacher A was on the maximum step 11 and had a BA. By FY97, this teacher, on step 11 has received salary increases totaling to 15.3 percent. If this teacher had earned an MA or 30 additional credits and changed salary lane to MA during this period, the increase would have amounted to 27.5 percent.

Teacher B had a BA, step 7, in FY93. In FY97, this teacher is on step 11 and has received a salary increase of 38.7 percent. Had this teacher earned an MA or an additional 30 credits and changed salary lane during this period, the increase would have amounted to 53.3 percent.

Teacher C entered BPS with a BA at step 1 in FY93. By FY97, this teacher had reached step 5 and had received 48.9 percent increase in pay. By earning the next contract salary lane of an MA, the percent increase in salary would have reached 62.3 percent.

Chart 9-3

#### Braintree Public Schools Teaching Staff Step/Degree Summary - Selected Years

	FY93 Base Pay		FY97 Base Pay			FY93-97 % Change	
	Step	Base Pay	Step	Base Pay			
		BA		BA	MA	BA	MA
Teacher A	11	\$38,066	11	\$43,881	\$48,518	15.3%	27.5%
Teacher B	7	\$31,643	11	\$43,881	\$48,518	38.7%	53.3%
Teacher C	1	\$22,008	5	\$32,776	\$35,720	48.9%	62.3%
		MA		MA	MA + 30	MA	MA + 30
Teacher A	11	\$42,088	11	\$48,518	\$53,318	15.3%	26.7%
Teacher B	7	\$34,668	11	\$48,518	\$53,318	39.8%	53.7%
Teacher C	1	\$23,587	5	\$35,720	\$38,752	51.4%	64.3%

Note: BPS has 3 salary lanes: BA - Bachelor degree; MA - Master degree; MA + 30. BA + 30 additional credits but without a Master degree qualifies for Master pay lane. Data obtained from BPS.

#### Chart 9-4

#### Braintree Public Schools Teaching Salary Schedules Comparison of FY93 through FY98 Salary Schedules - Steps 1 and 11

Salary	Initial Entry Level - Step 1							
Lane	FY93	FY94	FY95	FY96	FY97	FY98		
BA	\$22,008	\$22,998	\$24,148	\$24,631	\$25,370	\$26,131		
MA	\$23,587	\$24,624	\$25,881	\$26,399	\$27,191	\$28,007		
MA+30	\$25,192	\$26,326	\$27,642	\$28,195	\$29,041	\$29,912		
Salary		l	Highest Lev	vel - Step 1 <sup>°</sup>	1			
Salary Lane	FY93	ا FY94	Highest Lev FY95	vel - Step 1´ FY96	1 FY97	FY98		
	FY93 \$38,066		0	•		FY98 \$45,197		
Lane		FY94	FY95	FY96	FY97			
Lane BA	\$38,066	FY94 \$39,779	FY95 \$41,768	FY96 \$42,603	FY97 \$43,881	\$45,197		

Note: BPS has 3 salary lanes: BA - Bachelor degree; MA - Master degree; MA + 30. BA + 30 additional credits but without a Master degree qualifies for Master pay lane. Data obtained from BPS.

# 10. Professional Development Program

DOE requires school systems to prepare a professional development plan and to meet minimum spending requirements for professional development. During FY95 and FY96, DOE required school districts to spend at a rate equivalent to \$25 per pupil for professional development. This requirement increased to \$50 per pupil for FY97. As can be seen in *Chart 10-1*, BPS has not met the minimum spending requirements for FY95, FY96 and FY97.

Chart 10-1

#### Braintree Public Schools Expenditures for Professional Development (in whole dollars)

	Professional	Minimum Spending	Total Spent as % of	
	Development	Requirement	Requirement	
FY94	\$17,144	N/A	N/A	
FY95	\$10,372	117,175	8.9%	
FY96	\$99,637	119,250	83.6%	
FY97	\$111,896	240,050	46.6%	

Note: Data obtained from BPS as DOE

The overall goals of professional development in BPS are:

- to improve student learning through high quality classroom teaching and school operations;
- to access opportunities for on-going support, challenge, feedback, application and follow- up;
- to acquire new knowledge and skills to enhance performance; and

to meet recertification requirements for professional currency.

To accomplish these goals, a professional development council was established by the school committee and the Braintree education association to:

- design a yearly plan and implement activities and courses based on a staff needs assessment;
- communicate and disseminate course information;
- evaluate all programs offered; and
- keep a record of all those participating in continuing education.

BPS has a mentor program for new staff. Each new staff member is assigned two experienced teachers to mentor them through their first year of service. One mentor is experienced in the new teacher's area of education and the other is a peer of the new teacher. Mentors, assigned by the principal, observe the new teacher's teaching methods and provide them with helpful feedback.

BPS utilizes the Skillful Teacher program for administrators and new teachers. The program for administrators provides training in teacher evaluations. The program for teachers introduces them to various teaching techniques. All new teachers are encouraged to take this program.

Two full time professional development days are planned each year, one in the fall and one in the spring, each offering over 25 courses. A future development day for all teachers and administrators will focus on MCAS test data and item analysis to implement curriculum modifications. *Chart 10-2* shows a sample of courses offered, the number of professional development points (PDP's) earned for each course and the number of attendees.

#### Chart 10-2

#### Braintree Public Schools Selected Professional Development Offerings 1997/98

Title	PDPs	Attendance
Assessing Student Progress in Reading	3	59
Preparation for MCAS Tests	4	45
Working with G & T Students	4	37
Brain Injury Workshop	3	35
Functional Behavior Analysis	3	32
Curriculum Alignment History & Social Science	3	27
Phonemic Awareness	6	25
Rubrics: Combining Curriculum Instruction & Assessment	3	20
Aligning the Curriculum with the ELA Framework	6	19
Research for Better Teaching	12	19
Math Teaching for Critical Thinking	3	19
Rewriting Math Curriculum	3	18
Process Writing Workshop	4	18
Multiple Intelligence Workshop	4	18
Integrated Therapies within the Inclusion Model	3	15
Social Studies Frameworks	25	15

Note: Information obtained from BPS

# 11. School Improvement Plans

M.G.L. Chapter 71, §59C mandates that each school have a school council which must develop a school improvement plan and update it annually. For the purpose of this audit, the audit team reviewed plans for all schools.

In April and May of 1994, instructions regarding the approval process of school improvement plans were distributed by the Superintendent to principals. These instructions included areas required by law to be addressed in the plans such as:

- assessment of the impact of class size on student performance;
- assessment of student to teacher ratio;
- assessment of ratios of students to other supportive adult resources;
- scheduled plan for reducing class size;
- staff professional development; and

enhancement of parental involvement.

These instructions are reissued every year. All plans contained the information required by the education reform act and were approved by the school committee. Several plans requested the services of a full-time nurse to attend to an increasing number of students requiring medical attention during the school day. Extra-curricular activities such as field trips were reported on and various speakers were invited to the schools. In other plans, students ran food and clothing drives for the disadvantaged.

BPS used the school cable television channel to present the plans to students, parents and the community at large.

A follow-up on plan accomplishments is submitted to the school committee by school councils through the Superintendent annually.

# 12 Time and Learning

Time and learning standards refer to the amount of time students are expected to spend in school, measured by the number of minutes or hours in a school day and the number of days in the school year. As of September 1997, DOE requires 990 instruction hours per year for the high schools. For junior high and middle schools, the requirement is either 990 hours or 900 hours based on the decision of the school committee. For the elementary schools, the requirement is 900 hours. The school year remains at 180 days per year.

As shown in *Chart 12-1*, BPS time and learning plan exceeds these standards by four hours for the high school, between 23 hours and 99 hours for the middle schools and between 15 hours and 60 hours for the elementary schools. The number of hours of time and learning for students increases by grade in the elementary and middle school levels. There is no requirement for kindergarten.

Chart 12-1

# Braintree Public Schools Time and Learning Standards

	1995/96		1997/98
	BPS Standard	DOE Req.	BPS Standard
	Hours Per	Hours Per	Hours Per
	Year	Year	Year
High School	994	990	994
Middle School	923-999	900	923-999
Elementary School	915-960	900	915-960
Kindergarten	425	N/A	425

Note: Data obtained from BPS

13. Courses and Class Sizes

*Chart 13-1* summarizes selected high school class sizes for FY98. The school's average enrollment in core subject sections consisted of less than 22 students per class. English had the smallest average class size with 20 students, while math had the largest average with 21.3 students. Math had only two sections with 30 or more students and science and social studies had only one section each with 30 or more students.

Chart 13-1

Braintree Public Schools High School Classes 1997/98 School Year

	Number of	Total	Avg. Enroll.	Sect. w/	Sect. w/	30+ %
Subject	Sections	Enrollment	Per Section	25-29	30 or more	
English	81	1617	20.0	16	0	0.0%
Math	62	1318	21.3	16	2	3.2%
Science	56	1179	21.1	14	1	1.8%
Social Studies	74	1543	20.9	20	1	1.4%

Note: Data obtained from BPS

# 14. Technology and Computers

DOE approved BPS's technology plan on June 12, 1996. This plan was written by a committee of BPS staff, parents and other community members whose purpose was to

develop a long range technology plan covering the years 1996 to 2000. The plan used the Mass. Common Core of Learning, the Center for Educational Leadership and Technology (CELT) guidelines and the 1992 Braintree long range technology plan. It called for spending over \$5 million in five years. The plan's preface calls for spending \$2,250,000 in addition to the amount normally budgeted for technology. The annual expenditure per student would then be \$90 based on current enrollment. In FY98, BPS spent \$350,000 in new hardware and \$27,000 in new software.

The schools and the BPS administrative office have upgraded their hardware to Pentiums. The workstations that classrooms use to access the Internet are also Pentiums using WIN95 software. The LAN used for most of the administrative work for BPS is on Novell 4.11 and the workstations are all WIN95. These systems are certified by the vendors as Y2K compliant.

BPS has 5.9 students per computer, which is lower than the state average of 7.2 students. Only 33 percent of the classrooms have access to the Internet compared to the state average of 40.4 percent. There are currently 831 computers in use in the district.

BPS has had networked computer laboratories since 1982. The district believes that these laboratories are more effective and economical in delivering curriculum based instruction and computer literacy and that they guarantee uniformity and fairness of access. As a result, a significant amount of resources have been dedicated toward maintaining computer laboratories in every building. This results in a lower percentage of classrooms with computers connected to the Internet.

Each of the seven elementary schools has a networked computer laboratory of at least 24 workstations and a media center. Each middle school has three networked computer laboratories and a networked media center. In addition, one middle school has a networked writing laboratory. The high school has twelve networked laboratories averaging 24 workstations each.

#### 15. Supplies and Textbooks

The school district's annual budget provides an amount for instructional materials including textbooks, instructional supplies and workshops to enhance staff instructional effectiveness and components of the technology plan. The acquisition of instructional equipment is provided for in the town's capital budget plan. Instructional supplies are used to supplement textbooks in the classroom.

Chart 15-1 shows total expenditures for textbooks and instructional supplies for selected years and a yearly per student amount.
### Chart 15-1

### **Braintree Public Schools Textbooks and Instructional Supplies** (in thousands of dollars)

							FY93 -	· FY97
	FY89	FY93	FY94	FY95	FY96	FY97	\$ Incr.	% Incr.
High School		\$86.8	\$81.6	\$115.3	\$97.1	\$117.6	\$30.8	35.5%
Middle School		\$42.9	\$52.3	\$78.5	\$57.0	\$89.3	\$46.4	108.2%
Elementary		\$68.8	\$181.1	\$95.8	\$144.3	\$150.3	\$81.5	118.5%
SPED		\$2.1	\$0.7	\$11.4	\$4.0	\$4.8	\$2.7	128.6%
Bilingual								
Systemwide			\$3.0	\$2.3	\$5.6	\$2.1	\$2.1	
Total	\$0	\$200.6	\$318.7	\$303.3	\$308.0	\$364.1	\$163.5	81.5%
Textbooks Only	\$90.2	\$95.2	\$206.6	\$164.0	\$178.4	\$214.6	\$119.4	125.4%
Supplies		\$103.6	\$111.5	\$127.9	\$125.6	\$144.7	\$41.1	39.7%
Textbooks / Student	\$20	\$21	\$44	\$35	\$37	\$76	\$55	265.8%
Supplies / Student	\$0	\$23	\$24	\$27	\$26	\$45	\$22	98.1%

Note: Data obtained from BPS. No detailed breakdown available for FY89.

BPS is finalizing a five year textbook plan for school committee approval. This plan is the culmination of a three year effort by BPS teachers, curriculum directors and principals to align the curriculum to the state frameworks. The textbook selection process is addressed in article 8 of the teachers' contract with the final decision made by a vote of the teachers who will be using the text. The Superintendent, pursuant to the contract, retains veto power over the teachers' decision. This has been a feature of the teachers' contract for at least 20 years.

#### 16. **Test Scores**

BPS test scores are generally above the state average. The recently released MCAS scores show that BPS scored above the state average scaled scores for all grades in all areas. SAT scores for 1997 exceeded the state average by 10 points. MEAP scores for 1996 exceeded the averages in all areas, significantly in grades 4, 8 and 10 reading and social studies. The 1997 statewide lowa tests indicated that 86 percent of BPS grade 3 students scored at the higher reading skill levels of "proficient" and "advanced" versus the state average of 75 percent. BPS grade 10 students scored at the 68th percentile in the achievement test when compared to a representative national sample of students.

Standardized test scores are used by the district as a catalyst for curriculum change. BPS has a written standardized testing program with objectives for test results and choice of tests. These objectives include expectations that test results will help guide student achievement and assess the curriculum and system performance against comparable local and national systems. Scores are analyzed by curriculum directors who convene a team of one director, one principal and several teachers to recommend curriculum changes to the Superintendent should test scores show weaknesses.

BPS uses or has used several standardized tests including the Comprehensive Testing Program III (CTPIII), Metropolitan Achievement Tests (MAT), Massachusetts Educational Assessment Program (MEAP, the state's educational testing program from 1988 to 1996), the Iowa Tests of Basic Skills, the Iowa Tests of Educational Development, Massachusetts Comprehensive Assessment System (MCAS), Preliminary Scholastic Aptitude Test (PSAT) and Scholastic Aptitude Test (SAT). The grades 3 and 5 MATs and the grades 6 and 10 CTPIIIs were not administered in the 1998 school year due to school budget constraints. The grade 6 CTPIIIs were reinstated in the 1999 school year.

### Scholastic Aptitude Test (SAT)

SAT scores are generally above the state average as shown in *Chart 16-1*. Scores from 1994 and 1995 cannot be compared to 1996 and 1997 scores since SAT scores were "recentered" in 1996 resulting in a higher score for those years for all schools and consequently, a higher state average. Historically, over 80 percent of each BPS graduating class is administered the SATs. BPS encourages all students to take them.

### Chart 16-1

#### 1994 1995 1996 1997 SAT BPS BPS BPS BPS State State State State **Content Areas** Avg. Avg. Avg. Avg. Verbal 441 426 428 430 510 507 511 508 Math 486 475 455 477 504 504 515 508 1014 1011 Total 927 901 883 907 1026 1016 BPS - % of State Avg. 102.9% 97.4% 100.3% 101.0%

### **Braintree Public Schools** Scholastic Aptitude Test (SAT) Results

Note: Data obtained from BPS and DOE

### Massachusetts Educational Assessment Program (MEAP)

An analysis of Braintree's MEAP scores is in Appendix D. MEAP scores are reported in two ways: scaled scores, which range from 1000 to 1600; and proficiency levels which are reported as percentage of students in each proficiency. Level 1 is the lowest, level 2 is considered the "passing grade" level, while levels 3 and 4 constitute the more advanced levels of skills.

Proficiency scores shown in *Chart 16-2* indicate that scores for BPS students in grades 4 and 8 improved significantly in all areas from the lowest levels to mid level from 1992 to 1996. Mid level to upper level improvement in all areas for both grades in both years was not as strong.

Chart 16-2

### Braintree Public Schools MEAP Proficiency Scores 1992 and 1996 Fourth and Eighth Grades

		1992			1996	
Fourth Grade	Level 1	Level 2	Levels	Level 1	Level 2	Levels
	or Below		3&4	or Below		3 & 4
Reading	35%	35%	30%	21%	45%	34%
Mathematics	43%	37%	21%	26%	57%	17%
Science	40%	38%	22%	23%	53%	24%
Social Studies	36%	39%	25%	22%	58%	20%
		1992			1996	
Eighth Grade	Level 1	Level 2	Levels	Level 1	Level 2	Levels
	or Below		3&4	or Below		3 & 4
Reading	38%	28%	34%	20%	45%	34%
Mathematics	46%	29%	25%	35%	40%	24%
Science	42%	23%	34%	32%	45%	22%
Social Studies	43%	25%	32%	39%	37%	24%

Note: Data provided by DOE and BPS

Between 1988 and 1996, MEAP scores for students in grades 4 and 8 improved significantly in most areas. According to *Appendix C*, for grade 4 alone, reading scores improved by 120 points, math by 60 points, science and social studies both by 90 points each. Between 1994 and 1996, MEAP scores for grade 10 students also improved. BPS's 1996 MEAP scores for all subjects in all grades were above the state average. *Chart 16-3* shows grade 4 reading scores for selected school districts whose scores in 1988 ranged from 1300 to 1320 as compared to BPS's score of 1310. The scores for grade 4 students are particularly significant, because by 1996, these students had experienced education reform initiatives in the early stages of formal education. The greatest impact of education reform should initially be seen in the performance of these students. The reading scores for BPS grade 4 students have shown improvement in each of the four successive administrations of the test. Note that a significant change in a score is considered to be 50 points in either direction. An asterisk signifies a small school district whose scores may vary significantly and are not as reliable due to the size of the test sample.

Chart16-
MEAP Reading Scores - 4th Grade- 1988 Scores from 1300-1320

MEAP Reading Scores - 4th Grade- 1988 Scores from 1300-1320							
	1988	1990	1992	1994	1996	1992 - 1996 Change	
Uxbridge	1300	1390	1390	1430	1430	40	
New Salem Wendell *	1300	1310	1290	1230	1420	130	
Plympton *	1300	1390	1350	1390	1420	70	
Woburn	1300	1320	1350	1410	1420	70	
Norwood	1300	1360	1360	1440	1410	50	
Sandwich	1300	1380	1350	1410	1410	60	
Dracut	1300	1310	1350	1400	1400	50	
Douglas	1300	1310	1410	1400	1390	-20	
Mashpee	1300	1290	1340	1350	1350	10	
Millbury	1300	1300	1350	1310	1340	-10	
Milford	1300	1270	1310	1330	1330	20	
Palmer	1300	1260	1330	1340	1330	0	
Randolph	1300	1300	1290	1320	1320	30	
Adams Cheshire	1300	1350	1300	1330	1230	-70	
Blackstone Millville	1310	1330	1340	1450	1450	110	
Braintree	1310	1360	1380	1410	1430	50	
Central Berkshire	1310	1410	1350	1390	1410	60	
Hudson	1310	1330	1390	1390	1390	0	
Marion *	1310	1380	1340	1360	1390	50	
Mattapoisett	1310	1380	1340	1360	1390	50	
Rochester	1310	1380	1340	1360	1390	50	
Weymouth	1310	1330	1330	1370	1380	50	
Ashburnham Westminster	1310	1350	1360	1380	1370	10	
Bourne	1310	1320	1390	1370	1370	-20	
West Bridgewater	1310	1340	1320	1380	1370	50	
Dudley Charlton	1310	1340	1340	1370	1360	20	
Marlborough	1310	1310	1400	1400	1360	-40	
Pioneer Valley	1310	1260	1260	280	1350	90	
Fairhaven	1310	1270	1260	1320	1330	70	
Whitman Hanson	1310	1315	1345	1360	1330	-15	
Shirley	1310	1300	1500	1380	1300	-200	
Amesbury	1310	1350	1360	1350	1290	-70	
Easthampton	1310	1240	1300	1290	1260	-40	
Conway *	1320	1330	1350	1380	1430	80	
Deerfield *	1320	1330	1350	1380	1430	80	
Sunderland *	1320	1330	1350	1380	1430	80	
Whately *	1320	1330	1350	1380	1430	80	
Auburn	1320	1370	1420	1410	1420	0	
Bellingham	1320	1360	1350	1400	1390	40	
Dighton Rehoboth	1320	1380	1340	1380	1390	50	
Nahant *	1320	1320	1350	1430	1390	40	
Northampton	1320	1300	1360	1350	1390	30	
lpswich	1320	1420	1370	1450	1380	10	
Stoughton	1320	1340	1360	1450	1380	20	
North Attleborough	1320	1370	1390	1400	1370	-20	
Stoneham	1320	1330	1390	1390	1370	-20	
Plymouth	1320	1360	1380	1420	1360	-20	
Middleborough	1320	1300	1320	1310	1350	30	
South Hadley	1320	1350	1350	1360	1350	0	
West Springfield	1320	1310	1300	1310	1330	30	
Maynard	1320	1300	1290	1330	1290	0	
State Average	1300	1310	1330	1300	1350	20	
State Arelage	1300	1010	1000	1000	1330	20	

BPS credits these reading scores to test analysis, curriculum adjustment and emphasis upon teaching critical thinking, comprehension, inferential meaning and problem solving at the elementary level. They also credit their writing across the curriculum program working in concert with the reading program. Despite these gains, the remedial reading program was cut in FY98 due to budget constraints. One reading position was restored in FY99.

### Iowa Tests

The Iowa Tests of Basic Skills (Iowa tests) for grade 3 students was administered throughout Massachusetts in the spring of 1997. BPS was at the 74th percentile in reading for all students tested under routine conditions. The state score was at the 65th percentile. The test defines four different levels of reading comprehension: pre-reader, basic reader, proficient reader and advanced reader. Fourteen percent of students tested as pre- or basic readers while 86 percent tested as proficient or advanced. Results are categorized by students tested under routine conditions, students with disabilities tested under non-routine conditions and students with limited English proficiency. Students who did not take the test or who were given extra time to finish were excluded. About 77 percent of the tested students have attended BPS since the first grade.

The Iowa Tests of Educational Development, also referred to as the Massachusetts Grade 10 Achievement Test, was also administered in the spring of 1997. It tested seven different areas of skills including reading, quantitative thinking, social studies, etc. Scores were based on a national sample of students who took the test. BPS grade 10 students scored at the 68th percentile compared to the national sample. BPS's performance compares to scores as high as the 89th percentile and as low as the 28th percentile for other Massachusetts school districts

BPS officials refer to the CTPIIIs as challenging. In Massachusetts, they are administered mostly by private schools including Concord Academy, Deerfield Academy, Phillips Academy and the Williston-Northampton school. Public schools which administer the exam include Weston, Lynnfield and Manchester-By-The-Sea. BPS has been administering the CTPIIIs to students since the late 1970s and has relied upon them to provide specific data that the MEAPs and lowas cannot provide.

The CTPIIIs test student skills in reading, writing and mathematics and assess their scores in each category by school in terms of a national percentile and stanines, or grouped intervals of scores that indicate levels of performance. In addition, CTPIIIs provides BPS with specific student data which is then analyzed for student progress, classroom as well as curriculum effectiveness. Based on the results, curriculum directors and teachers meet to change the curriculum to meet the needs of students.

BPS plans to continue administering the CTPIIIs because BPS students can be compared to students in private schools and to students nationally.

### Masssachusetts Comprehensive Assessment System (MCAS)

The recently released MCAS scores show that BPS scored above the state average scaled scores for all grades in all areas.

MCAS is the new statewide assessment program administered annually to grades 4, 8 and 10. It measures performance of students, schools and districts on learning standards contained in the Massachusetts curriculum frameworks and fulfills the requirements of education reform. This assessment program serves two purposes:

- measures performance of students and schools against established state standards; and
- improves effective classroom instruction by providing feedback about instruction and modeling assessment approaches for classroom use.

MCAS tests are reported according to performance levels that describe student performance in relation to established state standards. Students earn a separate performance level of advanced, proficient, needs improvement or failing based on their total scaled score for each test completed. There is no overall classification of student performance across content areas. However, school, district and state levels are reported by performance levels. *Chart 16-4* reflects performance level percentages for all BPS students in tested grades. *Appendix G* provides additional detail for students who have attended schools in the school district for at least three years.

Chart 16-4

### Braintree Public Schools MCAS Test Scores Percentage of Students at Each Performance Level

						Average	State Avg.
			Needs	Failing	Failing	Scaled	Scaled
All Students	Advanced	Proficient	Improvement	(Tested)	(Absent)	Score	Score
Grade 4:							
English Language Arts	1	28	66	4	0	234	230
Mathematics	10	24	52	14	0	235	234
Science & Technology	6	53	38	3	0	242	238
Grade 8:							
English Language Arts	5	64	26	5	0	242	237
Mathematics	10	22	32	35	0	229	227
Science & Technology	2	36	33	29	0	230	225
Grade 10:							
English Language Arts	13	47	28	10	2	240	230
Mathematics	13	18	27	40	2	228	222
Science & Technology	1	27	44	26	2	228	225
Note: Data provided by DO	=						

Note: Data provided by DOE

### **17.** Management and Personnel Practices

### **Management Practices**

In February 1995, the school committee approved a 5 year strategic plan for years 1995 to 2000 consisting of seven goals:

- to develop a challenging and integrated curriculum, K-12, which is aligned with state and national initiatives and is implemented with sound instructional practices based upon the best research currently available;
- to develop and implement a program which increases parental and community support and involvement;
- to develop and implement a professional development program that provides opportunities for staff to implement new curriculum initiatives and instructional strategies, and meet state requirements for recertification;
- to update and implement a plan to enhance the use of technology for students and staff throughout the system;
- to develop and implement effective programs for "at-risk" students, K-12;
- to update and implement the systemwide capital plan to ensure that all facilities are maintained adequately; and
- to develop and implement a plan which ensures the adequate funding of school programs on a long term basis.

Based on this plan, all school administrators meet with the Superintendent three times per year as a group: first to develop, next to review and finally to recommend new systemwide objectives. Approval of these objectives follows by the school committee. Principals and curriculum directors must submit a plan to the Superintendent to implement their objectives. Administrators encourage feedback from staff during the implementation process. The Superintendent follows-up on implementation by conducting monthly meetings with administrators in smaller groups and by documenting progress for the school committee.

For example, the Superintendent documented the progress of one FY98 objective, "Our schools are committed to establishing clear instructional goals for our students", by indicating the following:

- curriculum frameworks study groups continued efforts towards aligning our curriculum to the state curriculum frameworks;
- performance standards and methods for assessing them are being included in the curriculum guide being developed for each curriculum area;
- the following new course offerings/programs were successfully implemented: phonics (grades 1 & 2 pilot); elementary reading (grade 5); health (grade 2); interactive mathematics (grades 10, 11, 12); problem solving strategies (grades 10, 11, 12); and

new computer laboratories were installed in our middle schools and high school (business department), as well as the installation of auto CAD and desktop publishing in the industrial technology laboratories.

### **Hiring Process**

For administrative positions, BPS uses a screening committee. This committee, comprised of teacher, parent and administrative representatives, screens and interviews qualified candidates and refers two or three of them to the Superintendent. The Superintendent, in turn, interviews them, conducts reference checks and makes the final determination.

Principals have individual three year contracts that contain no specific language concerning the standards or criteria for evaluation. The contracts provide for a four-step salary level (step 1 for a first year principal, step 2 for a second year principal etc.) with stated annual increases for the term of the contract based on increases negotiated by the teachers' or other unions.

Principals are responsible for hiring all personnel in their buildings. The candidates are screened and interviewed by the principal. Two or three finalists are recommended to the Superintendent, who confers with the principal prior to selecting the final candidate.

In the area of specialized positions such as special education, the director of the specific department conducts the screening of candidates and the initial interviews. The top candidates are then interviewed by the principal and a recommendation is made to the Superintendent. The Superintendent confers with the principal and the director prior to selecting the final candidate.

The school principal handles all hires of clerical and para-professional personnel. The principal's recommendation is forwarded to the Superintendent for approval.

All newly hired teachers and principals are assigned a mentor who serves as a guide to insure a smooth transition into the school district and to help develop effective teaching and management techniques.

### **Evaluation Process**

BPS has an evaluation process and performance criteria that has been improved since the introduction of education reform. All principals, administrators, teachers and other support personnel are evaluated according to the provisions of their contracts.

### **Principals and Administrators**

The audit team examined managerial staff contracts for the Superintendent, assistant superintendent, all principals and other managerial personnel. Contract salaries for principals are based on type of school, enrollment and professional experience with stated annual increases usually tied to union contract percentage increases. Increases are not specifically tied to performance. Contracts for principals were instituted after the passage of the education reform act and have been in place since the school year beginning September 1995. Contracts are for a three year period.

Within the management structure, BPS central office administrators and principals have individual contracts that are similar in structure and monetary value for similar positions and are evaluated on an annual basis. If goals and responsibilities are not being met, a one year contract extension may be granted. Central office administrators' and principals' contracts do not contain specific criteria for performance related compensation levels. Specific evaluation criteria and performance standards are contained in the BPS evaluation process and not in each employment contract. Since 1995, the principals and central office administrators have had three year contracts. Four principals have changed, three from retirements and one by re-opening of a school.

BPS has a policy of utilizing "off cycle" evaluations, that is evaluating an administrator on an annual basis if that administrator is in need of performance improvement to meet goals and responsibilities.

### Teachers

Teachers without professional status are observed a minimum of 3 times per year and are evaluated annually. Elementary teachers are observed and evaluated by the school principal. Elementary specialists are evaluated by both the director of the particular specialty and by the principal. The director of the discipline evaluates middle and high school teachers. Teachers with professional status are evaluated on a 2-year cycle with a minimum of two observations during the year.

"Off cycle" evaluations for teachers occurs annually if that teacher is in need of performance improvement to meet goals and responsibilities.

Since education reform, BPS has used the evaluation process to remove five teachers without professional status and to place ten with professional status on "off cycle" evaluation rotation. The policy of using a one year contract extension has not been needed within the timeframe of this review. Teachers without professional status are simply not reappointed to their positions.

### 18. Accounting and Reporting

The audit team traced a sample of expenditures reported to DOE to BPS accounting and budget records. The audit team also met separately with several BPS staff, the town auditor, the town accountant and a representative of the CPA firm which audits the town. The audit team was satisfied that adequate safeguards exist for proper internal controls. Based upon a sample, expenditure reports were generally an accurate representation of BPS expenditures. However, in verifying the accuracy of budget records to expenditure

reports submitted to DOE, the audit team noted that school related capital budget expenditures appropriated in the town budget were not reported correctly in the end-ofyear report for FY89 through FY98. Amounts for the capital budget ranged from \$0 to just under \$1.3 million during this time period. The audit team determined that certain unreported expenditures were for net school spending purposes and suggested that the town accountant and school director of computer services meet to adjust the FY98 submission using DOE's reporting requirements. The BPS director of computer services has been completing this report in lieu of the business manager. Since BPS has recently hired a business manager, it is expected that this will be his responsibility for future submissions. DOE staff indicated to the audit team that revision of prior end-of-year reports is not required.

There appears to be a good working relationship between the town and the school department. The town, however, uses a separate accounting package generating the need for duplicate entry of bills and payrolls. A town committee has been reviewing technology related issues over the past year and is preparing a recommendation to upgrade and to integrate both town and school accounting packages.

### **19. Review of Expenditures**

The audit team completed a review of BPS expenditures and purchasing controls, analyzed the accounting system and selected accounts from the FY97 general ledger. The review showed that purchasing procedures and controls are in place and that signoffs and authorizations are being utilized. Separation of duties and responsibilities is maintained throughout the school system and the town auditor and accountant provide general oversight and audit review. The Braintree treasurer's office issues payroll and vendor checks.

BPS is attempting to control maintenance costs by utilizing their maintenance department for repairs and renovations to school buildings. Their maintenance department consists of maintenance personnel who perform general plumbing and electrical repairs, craftsmen for carpentry work and a laborer.

### 20. High School Accreditation

Braintree High School (BHS) is accredited. The accreditation visit by the New England Association of Schools and Colleges (NEASC) took place in October of 1994. BPS submitted the required interim status report in October of 1996. Interim reports are due two years and five years after the initial accreditation reports are issued. NEASC voted to continue BHS's accreditation in January 1997 stating that it was pleased with several issues including:

 "the implementation of a process for the ongoing and regular review of the school's Statement of Purpose";

- "the alignment of the curriculum to the school's statement of purpose and expectations for student and school performance";
- "the implementation of a formal schoolwide curriculum review, revision and development process"; and
- "the provision of professional development activities to address identified curriculum and instructional needs".

*Chart 20-1* identifies the status of the recommendations contained in the 1994 report as of the 1996 follow-up.

Chart 20-1

### Braintree Public Schools Status of Accreditation Recommendations

			In	Planned for		No
Area	Rec's	Completed	Progress	the Future	Rejected	Action
Philosophy	4	4				
Curriculum & Instruction	11	7		3		1
Business Education	2	2				
English	1	0		1		
Foreign Languages	4	1		1		2
Health	2	2				
Home Economics	2	1				1
Mathematics	2	0	1	1		
Music	3	1		1		1
Physical Education	2	2				
Science	5	1	1	2		1
Social Studies	3	2		1		
Student Activities	1	1				
Tech. Education	2	0				2
Visual Art	1	0				1
Alternative School	3	2	1			
Striving to Achieve	2	1				1
Student Services	7	6		1		
Educ. Media Services	8	5		1		2
Admin., Faculty, Staff	10	6	1			3
School Facilities	19	15	2	1		1
Comm. Support and Involvement	3	2				1
School Climate	5	4		1		
Assm't of Educational Progress	3	2		1		
Total	105	67	6	15	0	17

Note: Data obtained from BPS

### 21. Grade 3 Transiency

Student transiency is generally defined as the percentage of students who enter and/or leave the system after the first day of school. Transiency poses an educational problem because students may lose the benefit of a sequential and coherent school program as they move from school to school.

BPS has a relatively low stable student population in the lower grades as measured by the 1998 lowa 3rd grade reading test in comparison to 14 communities of similar population to Braintree. According to *Chart 21-1*, BPS has the second lowest stability percentage of grade 3 students who attended BPS in grades 1, 2 and 3. This stability percentage, 77.2 percent, is below the state average of 80.4 percent. BPS's transiency percentage, 22.8 percent, is above the state average of 19.6 percent.

Chart 21-1

### Transiency and Stability - 3rd Grade Selected Communities Student Population Participating in the 1998 Iowa 3rd Grade Reading Test

	Stable	Total	Stable Population	Transiency
Community	Population	Population	Percent	Percent
Falmouth	285	373	76.4%	23.6%
Braintree	267	346	77.2%	22.8%
Randolph	238	308	77.3%	22.7%
Beverly	291	375	77.6%	22.4%
Natick	242	307	78.8%	21.2%
Andover	355	445	79.8%	20.2%
Westfield	335	418	80.1%	19.9%
Salem	305	378	80.7%	19.3%
Everett	328	402	81.6%	18.4%
Marlborough	268	327	82.0%	18.0%
Chelmsford	370	451	82.0%	18.0%
Attleboro	421	501	84.0%	16.0%
Woburn	301	355	84.8%	15.2%
Watertown	151	173	87.3%	12.7%
Billerica	418	475	88.0%	12.0%

Note: Student population includes only students tested under "routine" conditions. Data obtained from DOE's 1998 Iowa Grade 3 reading test summary

### 22. Special Education and Transitional Bilingual Education

### Special Education (SPED)

In 1997, BPS had a SPED participation rate of 17.7 percent, 1.2 percentage points higher than the state average of 16.5 percent reported by DOE. Total SPED enrollment in the 1990's has averaged around 800 students and has increased since 1995. As a percentage of total enrollment, SPED enrollment has stayed the same since 1995. However, the percentage of SPED students who are considered substantially separate has increased from 14.1 percent in 1995 to 20.4 percent in 1998.

BPS has attempted to contain the increasing cost of operating its special education program by adopting in-house programs to educate as many students as possible in the district. This has increased the number of substantially separate students, but they are not tuitioned out. In FY97, BPS developed two programs for certain special education students who would have otherwise been placed in private school. BPS estimated that these two programs saved the district in that year over \$264,000.

### Chart 22-1

### **Braintree Public Schools** SPED Enrollment **Based on October 1 Reports**

					Substantially Separated
School Year	Total	Total	SPED as % of	Substantially	as % of
Ending	Enrollment	SPED	Total Enrollment	Separated	SPED
1991	4,440	786	17.7%	107	13.6%
1992	4,537	798	17.6%	110	13.8%
1993	4,592	781	17.0%	118	15.1%
1994	4,684	803	17.1%	119	14.8%
1995	4,687	788	16.8%	111	14.1%
1996	4,770	793	16.6%	126	15.9%
1997	4,801	849	17.7%	144	17.0%
1998	4,925	825	16.8%	168	20.4%

Note: Data obtained from BPS

The increase in SPED costs from FY93 to FY97 was \$1.4 million, or 43.1 percent, while the increase in total student expenditures reported to DOE for the same period was \$4.9 million, or 19.8 percent. SPED expenditures for FY93 increased from 13.2 percent of total school district expenditures to 15.8 percent in FY97.

Chart 22-2

### **Braintree Public Schools Total Expenditures as Reported to DOE** (in millions of dollars)

				FY93-FY97			
	FY89	FY93	FY97	\$ Incr. / Decr.	% Incr. / Decr.		
Special Education	\$3,069,499	\$3,282,852	\$4,697,236	\$1,414,384	43.1%		

Note: Data obtained from BPS

Transitional Bilingual Education (TBE)

BPS does not have a bilingual program. As of October 1, 1997, BPS had only 37 students enrolled in an English as a Second Language (ESL) program with three ESL teachers for the entire K-12 school system.

#### 23. **Dropout and Truancy**

BPS's dropout rate for FY97 was 1.5 percent, less than half the state average of 3.4 percent and half the average of 14 communities of similar population to Braintree. As shown in Chart 23-1, BPS has the sixth lowest dropout rate of the 14 communities. The district attributes this low rate to expansion of its alternative education programs, the student support team, a monitor program and a liaison with the Braintree Police Department.

Alternative education programs include the Alternative High School for grades 10 to 12, the Alternative Center for Educational Success (ACES) for grades 9 to 12 and the Academic Reinforcement Cooperation, Helping Each Other Reach (ARCHER) program.

The student support team is comprised of housemasters, guidance staff, school adjustment counselors, school nurses, directors of alternative programs and representatives of the special services department. Meetings are held every other Friday at which at-risk students are discussed.

A BPS monitor is responsible for contacting the homes of all absent BHS students, patrolling the community for truants and assisting in the control of smoking at BHS. Patrolling Braintree police officers report students who appear to be truant to the monitor.

A Braintree police officer serves as liaison between BPS and the Braintree Police Department. This person is assigned to the schools to deal with issues that range from traffic concerns to youth issues such as gang violence and harassment.

Chart 23-1

### **High School Dropout Rates Selected Communities** FY93 - FY97

Community	FY93	FY94	FY95	FY96	FY97
Falmouth	3.7%	5.2%	4.4%	5.2%	6.5%
Salem	6.5%	4.7%	5.3%	5.9%	6.3%
Beverly	2.9%	6.3%	6.1%	6.6%	5.5%
Attleboro	6.5%	6.8%	7.9%	5.9%	5.0%
Marlborough	2.4%	4.4%	2.9%	2.4%	4.3%
Everett	5.0%	3.7%	3.5%	4.1%	3.9%
Westfield	5.0%	4.1%	5.7%	5.4%	2.9%
Randolph	2.5%	4.6%	4.0%	6.3%	2.2%
Watertown	2.5%	2.8%	2.3%	1.7%	2.0%
Braintree	1.0%	1.6%	1.3%	1.4%	1.5%
Woburn		1.1%	2.4%	1.0%	1.3%
Billerica	0.8%	1.7%	1.5%	1.4%	1.3%
Chelmsford	0.6%	0.9%	1.3%	0.5%	0.9%
Natick	0.6%	1.1%	1.6%	1.1%	0.8%
Andover	0.8%	0.9%	1.4%	1.3%	0.6%
Average These Communities	2.9%	3.3%	3.4%	3.3%	3.0%
Median These Communities		3.7%	2.9%	2.4%	2.2%
State Average	3.5%	3.7%	3.6%	3.4%	3.4%

Note: Data provided by DOE

### 24. Maintenance and Capital Improvement

The audit team made site visits to six schools in the district. These buildings were found to be clean and well kept.

The audit team found structural issues at two locations; at the high school and at one middle school. Installation irregularities of a liner on the plaza deck has caused serious water leakage on the surface below as well as superficial cracking, although it is not considered a structural hazard. The town voted to borrow funds for this purpose and repairs are underway. At one middle school, high winds damaged a portion of roof which has caused it to leak above a stairwell in one corner of the building. Funds were approved in the FY99 capital plan but were reprioritized when higher than expected bids were received to replace malfunctioning high school oil burners. This change of plans was agreed to by the school, capital planning and finance committees. The school department applied for additional funds from DOE's Foundation Reserve Program, or "pothole" fund, in September 1998. Should the district's application be approved, it plans to refocus on the roof repair.

BPS receives capital improvement and equipment funding through the town's capital planning process. The district annually prepares a 5 year capital plan for school committee approval. The plan is then forwarded to the town's capital planning and finance committees for their recommendations.

For FY98, the town appropriated \$1,261,000 for capital improvement and equipment purposes which included:

- computers for the high school language laboratory \$300,000;
- renovation and replacement of the auditorium chairs at both middle schools \$115,000; •
- conversion from oil to gas burners at the middle schools \$175,000;
- window replacements at certain elementary schools \$385,000; and •
- computer hardware and software systemwide \$300,000.

In response to a recent BPS space needs study, the school department is researching school building assistance rules and regulations. A meeting with staff from the state's School Building Assistance office is scheduled for December. Section 12 of Ch. 645 of the acts of 1948, "State Aid for School Building Construction", authorizes a reimbursement rate of 61 percent. The audit team was of assistance to BPS staff in discussing these rules and regulations and in supplying documentation on the reimbursement.

In the spring of 1998, the district procured a custodial maintenance study of three school buildings. The high school was chosen because it is the largest building. One elementary and one middle school were chosen at random. A comprehensive report was written with recommendations for improvements which included hiring additional staff, purchasing particular custodial equipment and utilizing custodial staff differently. To implement these recommendations, BPS has hired two additional custodians and is planning to include funds in the FY2000 budget for additional custodial supplies and two additional custodians to implement a team cleaning approach.

#### 25. **Curriculum Development**

BPS curriculum is administered by curriculum directors who report directly to the assistant superintendent. A K-12 systemwide curriculum has been developed to conform to the state frameworks. The district is in the process of implementing this curriculum in the classroom. Each director (English, mathematics, science and social studies) heads a committee of teachers and administrators at all grade levels. The committees meet once a month during the school year and hold summer workshops. The committees then develop and revise guides for an integrated curriculum for all grade levels and submit these through the curriculum directors, assistant superintendent and Superintendent to the school committee for approval.

The curricula establish rubrics, or standards for each grade level by which a student's progress can be measured. This allows BPS students who must transfer between

elementary or middle schools in the town to receive the same instruction with the same materials. It also provides for a smoother transition in learning between grades.

#### IV. **Employee Survey**

The audit team conducted a confidential survey of all employees of BPS to provide a forum for teachers and staff to express their opinions on education in BPS. Approximately 600 questionnaires were delivered to school staff and 185 responses were received and tabulated, a response rate of 31 percent. Areas covered by the survey include:

- 1. education reform;
- 2. education goals and objectives;
- 3. curriculum;
- 4. planning;
- 5. communications and mission statements;
- 6. budget process;
- 7. professional development;
- 8. supplies;
- 9. facilities; and
- 10. computers and other education technology.

Appendix E shows the teachers' answers to the survey questions. The Superintendent also received a summary of responses.

The survey results indicate that education reform is a high priority in Braintree. Seventynine percent of teachers think that education reform issues are considered when their own school plans are made and 78 percent think that also applies to districtwide plans. Seventy-six percent believe that the school district is taking positive steps to improve education and 69 percent state that their job has changed because of education reform.

Teachers have a clear understanding about the school district's goals and objectives (83) percent) and how they relate to their jobs (81 percent). Seventy-five percent feel that they have a role in developing their own goals and objectives and 74 percent confirm that there are indicators used to measure their progress toward their goals and objectives.

The survey also indicates that 53 percent of the teachers do not think that an increase in school funding is tied directly to improvements in education. Sixty-five percent of teachers think that improvements in education at the school would have occurred without education reform.

Teachers are very positive about curriculum development in Braintree. Eighty-two percent believe that the curriculum is coherent and sequential. Eighty-two percent feel that there is a coherent, on-going effort within BPS to keep curriculum current.

Eighty-nine percent feel that teachers play an important role in reviewing and revising the curriculum. They are also less positive that the curriculum now in use in their school will improve student test scores. Only 58 percent believe it will, while 5 percent think it will not. A majority of respondents, 67 percent, believe that the curriculum does not impact test scores as much as how a subject is taught by a teacher.

# V. Superintendent's Statement – Education Reform

As part of this review, the Superintendent was asked to submit a brief statement expressing his point of view with respect to three areas:

- 1. school district progress and education reform since 1993;
- 2. barriers to education reform; and
- 3. plans over the next three to five years.

The Superintendent's statement is included in Appendix F.

# VI. Appendix

Appendix A1	School Committee Budgets
Appendix A2	Budgeted Teachers' Salaries by Discipline
Appendix B1	Foundation Budget Line Items Targets and Expenditures FY94, FY96-FY97 - Table
Appendix B2 - 3	Foundation Budget Line Items Targets and Expenditures FY94, FY96-FY97 - Graph
Appendix C	Mass. Educational Assessment Program (MEAP) Summary prepared by DOE
Appendix D	Mass. Educational Assessment Program (MEAP) Summary Scores for grades 4, 8 and 10 prepared by DOE
Appendix E	Employee Survey Results
Appendix F	Superintendent's Statement on Education Reform Accomplishments, Barriers and Goals
Appendix G	Comparison of MCAS Average Scaled Scores
Appendix H	Auditee's Response

#### Braintree Public Schools School Committee Budgets (in thousands of dollars)

			FY89 -	FY93		FY93 -	FY97	
Category	FY89	FY93	\$ Incr.	% Incr.	FY97	\$ Incr.	% Incr.	FY98
Personnel:								
1000 - Administration	\$400	\$424	\$24	6.0%	\$486	\$62	14.6%	\$486
2000 - Instruction	\$13,807	\$15,012	\$1,205	8.7%	\$18,527	\$3,515	23.4%	\$19,338
3000 - Other Services	\$126	\$117	(\$9)	-7.1%	\$197	\$80	68.4%	\$197
4000 - Op. & Maint of Plant	\$1,514	\$1,416	(\$98)	-6.5%	\$1,537	\$121	8.5%	\$1,628
Total Personnel:	\$15,847	\$16,969	\$1,122	7.1%	\$20,747	\$3,778	22.3%	\$21,649
Materials:								
1000 - Administration	\$10	\$10	\$0	0.0%	\$15	\$5	50.0%	\$15
2000 - Instruction	\$304	\$232	(\$72)	-23.7%	\$512	\$280	120.7%	\$512
3000 - Other Services	\$31	\$19	(\$12)	-38.7%	\$20	\$1	5.3%	\$20
4000 - Op. & Maint of Plant	\$1,022	\$830	(\$192)	-18.8%	\$996	\$166	20.0%	\$944
7000 - Acq. Fixed Assets	\$485	\$117	(\$368)	-75.9%	\$183	\$66	56.4%	\$183
Total Materials:	\$1,852	\$1,208	(\$644)	-34.8%	\$1,726	\$518	42.9%	\$1,674
Supportive:								
1000 - Administration	\$39	\$29	(\$10)	-25.6%	\$45	\$16	55.2%	\$45
2000 - Instruction	\$475	\$636	\$161	33.9%	\$1,009	\$373	58.6%	\$1,009
3000 - Other Services	\$1,004	\$810	(\$194)	-19.3%	\$1,261	\$451	55.7%	\$1,161
4000 - Op. & Maint of Plant	\$195	\$154	(\$41)	-21.0%	\$161	\$7	4.5%	\$161
6000 - Community Services	\$38	\$25	(\$13)	-34.2%	\$29	\$4	16.0%	\$29
9000 - Out-of-District Prog.	\$883	\$1,077	\$194	22.0%	\$1,609	\$532	49.4%	\$1,814
Total Supportive:	\$2,634	\$2,731	\$97	3.7%	\$4,114	\$1,383	50.6%	\$4,219
Total Capital & Equipment:	\$469	\$0	(\$469)	-100.0%	\$523	\$523		\$1,261
Grand Total:	\$20,802	\$20,908	\$106	0.5%	\$27,110	\$6,202	29.7%	\$28,803

Note: Data obtained from BPS and town of Braintree

#### Braintree Public Schools Budgeted Teachers' Salaries By Selected Discipline (in thousands of dollars)

			F	Y93-FY9	7	F	Y93-FY9	98	FY97-FY98		
Discipline	FY93	FY95	FY97	\$ Incr.	% Incr.	FY98	\$ Incr.	% Incr.	\$ Incr.	% Incr.	
Elementary	\$3,773	\$4,389	\$4,603	\$830	22.0%	\$4,648	\$875	23.2%	\$45	1.0%	
English	\$1,072	\$1,144	\$1,287	\$215	20.1%	\$1,343	\$271	25.3%	\$56	4.4%	
Mathematics	\$961	\$1,101	\$1,148	\$187	19.5%	\$1,197	\$236	24.6%	\$49	4.3%	
Science	\$970	\$1,070	\$1,084	\$114	11.8%	\$1,172	\$202	20.8%	\$88	8.1%	
Social Studies	\$908	\$989	\$1,067	\$159	17.5%	\$1,007	\$99	10.9%	(\$60)	-5.6%	
Foreign Language	\$531	\$585	\$618	\$87	16.4%	\$675	\$144	27.1%	\$57	9.2%	
Business	\$118	\$127	\$119	\$1	0.8%	\$132	\$14	11.9%	\$13	10.9%	
Art	\$398	\$476	\$495	\$97	24.4%	\$530	\$132	33.2%	\$35	7.1%	
Music	\$392	\$454	\$475	\$83	21.2%	\$465	\$73	18.6%	(\$10)	-2.1%	
Home Economics	\$233	\$274	\$255	\$22	9.4%	\$265	\$32	13.7%	\$10	3.9%	
Physical Education	\$631	\$697	\$724	\$93	14.7%	\$721	\$90	14.3%	(\$3)	-0.4%	
Reading	\$181	\$175	\$218	\$37	20.4%	\$193	\$12	6.6%	(\$25)	-11.5%	
Industrial Arts	\$246	\$245	\$183	(\$63)	-25.6%	\$175	(\$71)	-28.9%	(\$8)	-4.4%	
Health/Human Develop	\$75	\$58	\$99	\$24	32.0%	\$99	\$24	32.0%	\$0	0.0%	
SPED	\$1,618	\$1,994	\$2,168	\$550	34.0%	\$2,570	\$952	58.8%	\$402	18.5%	
Alternative Ed	\$126	\$142	\$187	\$61	48.4%	\$237	\$111	88.1%	\$50	26.7%	
Computer Lab	\$169	\$270	\$286	\$117	69.2%	\$291	\$122	72.2%	\$5	1.7%	
Gifted & Talented	\$51	\$38	\$49	(\$2)	-3.9%	\$0	(\$51)	-100.0%	(\$49)	-100.0%	

Note: Data obtained from BPS

#### Braintree Public Schools Net School Spending According to Foundation Budget Categories (in thousands of dollars)

								Variance	
	Repo	rted Expend		Fou	ndation Bud	0	•	ver(under) F	
	FY94	FY96	FY97	FY94	FY96	FY97	FY94	FY96	FY97
Teaching Salaries	\$13,895	\$14,973	\$16,083	\$9,282	\$10,164	\$10,518	\$4,613	\$4,809	\$5,564
Support Salaries	\$1,018	\$1,123	\$1,147	\$2,848	\$3,134	\$3,262	(\$1,830)	(\$2,012)	(\$2,115)
Assistants' Salaries	\$515	\$489	\$691	\$436	\$476	\$488	\$79	\$13	\$202
Principals' Salaries	\$772	\$951	\$959	\$905	\$983	\$1,016	(\$133)	(\$32)	(\$57)
Clerical Salaries	\$636	\$691	\$676	\$530	\$576	\$594	\$106	\$116	\$82
Health Salaries	\$122	\$181	\$200	\$195	\$212	\$218	(\$73)	(\$30)	(\$19)
Central Office Salaries	\$499	\$521	\$535	\$854	\$927	\$956	(\$354)	(\$407)	(\$421)
Custodial Salaries	\$1,527	\$1,597	\$1,607	\$798	\$875	\$907	\$729	\$722	\$701
Total Salaries	\$18,985	\$20,526	\$21,897	\$15,847	\$17,346	\$17,960	\$3,137	\$3,179	\$3,937
Benefits	\$2,077	\$1,527	\$1,873	\$2,207	\$2,414	\$2,497	(\$130)	(\$887)	(\$624)
Expanded Program				\$87	\$167	\$178	(\$87)	(\$167)	(\$178)
Professional Development	\$17	\$100	\$112	\$364	\$399	\$413	(\$347)	(\$299)	(\$302)
Athletics	\$238	\$255	\$255	\$300	\$314	\$324	(\$62)	(\$60)	(\$69)
Extra-Curricular	\$9	\$9	\$10	\$140	\$151	\$155	(\$131)	(\$142)	(\$145)
Maintenance	\$933	\$1,111	\$1,072	\$1,031	\$1,123	\$1,165	(\$98)	(\$12)	(\$94)
Special Needs Tuition	\$1,244	\$1,333	\$1,680	\$591	\$637	\$651	\$653	\$696	\$1,029
Miscellaneous	\$62	\$159	\$183	\$421	\$454	\$469	(\$359)	(\$295)	(\$286)
Books and Equipment	\$492	\$683	\$612	\$1,311	\$1,408	\$1,453	(\$819)	(\$725)	(\$841)
Extraordinary Maintenance				\$687	\$749	\$777	(\$687)	(\$749)	(\$777)
Total Non-Salaries	\$2,995	\$3,649	\$3,924	\$4,931	\$5,403	\$5,586	(\$1,936)	(\$1,754)	(\$1,662)
Total	\$24,056	\$25,702	\$27,695	\$22,985	\$25,163	\$26,043	\$1,071	\$539	\$1,652
Revenues	\$8	\$6	\$3				\$8	\$6	\$3
Net School Spending	\$24,049	\$25,696	\$27,692	\$22,985	\$25,163	\$26,043	\$1,064	\$533	\$1,649

Note: Data obtained from DOE and BPS. Totals may not add due to rounding.



### Appendix B3



							1988-96	1996 State	e 1996 BPS
	Grade	1988	1990	1992	1994	1996	Change	Average	Over/(Under) State Avg.
Reading									
	4	1310	1360	1380	1410	1430	120	1350	80
	8	1390	1350	1380	1420	1440	50	1380	60
	10	N/A	N/A	N/A	1320	1380		1310	70
Math									
	4	1310	1340	1350	1350	1370	60	1330	40
	8	1370	1360	1350	1340	1360	-10	1330	30
	10	N/A	N/A	N/A	1310	1350		1310	40
Science									
	4	1320	1360	1360	1380	1410	90	1360	50
	8	1310	1350	1360	1350	1370	60	1330	40
	10	N/A	N/A	N/A	1320	1350		1310	40
Social Stu	dies								
	4	1310	1350	1380	1380	1400	90	1340	60
	8	1360	1370	1350	1360	1370	10	1320	50
	10	N/A	N/A	N/A	1340	1350		1300	50

#### Braintree Public Schools Massachusetts Educational Assessment Program (MEAP) Scores

Note: N/A indicates that test was not given to all grades in all years. Data obtained from DOE

### **MEAP SCORES-BRAINTREE**

The Massachusetts Educational Assessment Program was a biennial curriculum assessment that tested reading, mathematics, science and social studies at grades 4, 8 and 12 in 1988; in 1994 the secondary grade tested was moved from grade 12 to grade 10. The last administration of this program was 1996. The purpose of MEAP was twofold: to provide data for comparisons; and to provide schools and districts with information that could be used to improve curriculum and instruction.

MEAP reports scores in two ways: scaled scores which range from 1000 to 1600; and proficiency levels which are reported as percentages of students in each level. In 1988, the state average for the scaled scores was determined to be 1300 in all subjects. In subsequent administrations, the state average has risen. Scaled scores are relative to the state average and allow for longitudinal comparisons as well as comparisons between districts. Open-ended question results account for 30% of the total scaled score; multiple choice questions account for the remaining 70% of the scaled scores. A change of fifty or more points in a scaled score is considered educationally significant. This means that there is a noticeable difference in the behaviors and responses of students in a classroom.

In 1992, MEAP began to use proficiency levels as another means of reporting test results. Proficiency levels are descriptive statistics based on external absolutes--the proficiency levels are not relative to other proficiency levels in the state, but based on how students perform relative to external criteria. The proficiency levels range from Below Level 1 (which means that the student did not answer the questions so we do not have enough information on which to make a judgment) to Level 4, the highest level.

#### **GRADE 4**

#### **Scaled Scores**

- The scaled scores for fourth grade reading increased across the five administrations of the test in Braintree starting with 1310 in 1988 and closing with 1430 in 1996. The highest scaled score attained was 1430 in 1996; the lowest was 1310 in 1988.
- The scaled scores for fourth grade mathematics rose steadily over the five administrations starting with 1310 in 1988 and ending with 1370 in 1996. The highest score for mathematics was 1370 in 1996; the lowest score was 1310 in 1988.
- The scaled scores for fourth grade science started at 1320 in 1988 and rose to 1410 in 1996. The highest scaled score was 1410 in 1996; the lowest was 1320 in 1988.
- The scaled scores for fourth grade social studies started at 1310 in 1988 and increased to end at 1400 in 1996. The highest score attained was 1400 in 1996, the lowest was 1310 in 1988.
- In 1996, fourth graders in Braintree scored within their comparison score bands in all subjects except reading where they scored above their comparison score band. A comparison score band is a range of scores that permits a school to compare its results to what it would have scored if it had scored at the average level for its socioeconomic background. The comparison score band for fourth grade reading was 1370-1410 in 1996. The score bands show a slight variation for different subjects because the state average for each subject is different.

#### **Proficiency Levels**

- In reading, the percentage of students scoring at or Below Level 1 decreased from 35% in 1992 to 21% in 1996. Also, the percentage at Level 2 increased from 35% in 1992 to 45% in 1996. The top levels, 3 and 4, increased from 30% in 1992 to 34% in 1996.
- The percentage of fourth graders scoring at or below Level 1 in mathematics decreased from 43% in 1992 to 26% in 1996 while the percentage scoring in Level 2 increased from 37% to 57% between 1992 and 1996. In 1992, 21% of the fourth graders scored at or above Level 3 while in 1996, 17% scored there.
- Forty percent of the Braintree fourth graders scored at or below Level 1 in 1992 in science while 23% scored in the two lowest categories in 1996. In 1992, 38% scored at Level 2 and in 1996, 53% achieved a score of Level 2. An increase from 22% to 24% occurred at Levels 3 and 4 between 1992 and 1996.
- Thirty-six percent of the Braintree fourth graders scored at or below Level 1 in 1992 in social studies while in 1996, 22% fell into the same categories in social studies. Level 2 increased from 39% in 1992 to 58% in 1996. In 1992, 25% of the fourth graders scored at levels 3 and 4 in social studies while in 1996, 20% scored at levels 3 and 4.

#### **GRADE 8**

#### **Scaled Scores**

- Reading scores for eighth graders have increased from 1390 in 1988 to 1440 in 1996. The highest reading score attained by Braintree eighth graders was 1440 which they achieved in 1996. The lowest reading score they received was 1350 in 1990.
- Scaled scores for eighth grade mathematics have decreased from 1370 in 1988 to 1360 in 1996. The highest eighth grade mathematics score was 1370 in 1988 and the lowest was 1340 in 1994.
- Science scaled scores for Braintree eighth graders have increased from 1310 in 1988 and to 1370 in 1996. They had a high of 1370 in 1996 and a low of 1310 in 1988.
- Social studies scaled scores have risen from 1360 in 1988 to 1370 in 1996. The lowest social studies scaled score was 1350 in 1992.
- In 1996, eighth graders in Braintree scored within their comparison score bands in all subjects.

#### **Proficiency Levels**

- In 1992, 38% of the eighth graders scored in the bottom two proficiency levels, e.g. Below Level 1 and Level 1, in reading. In 1996, 20% of the Braintree eighth graders fell into these categories. The percentage of students scoring at Level 2 increased from 28% in 1992 to 45% in 1996. The percentages of Braintree eighth graders at Levels 3 and 4 in reading were 34% in 1992 and 34% in 1996.
- In mathematics, 46% of the eighth graders scored at Level 1 or Below Level 1 in 1992. In 1996, 35% scored in those same categories. The percent of students scoring at Level 2 increased from 29% in 1992 to 40% in 1996. Twenty-five percent of the Braintree eighth graders scored at Levels 3 and 4 in 1992 while 24% scored at levels 3 and 4 in 1996.

- Forty-two percent of the Braintree eighth graders scored at Level 1 or Below Level 1 in science in 1992. In 1996, 32% of the eighth graders scored at the two lowest levels. The percent of students scoring in Level 2 rose from 23% in 1992 to 45% in 1996. At the two highest levels, 3 and 4, the percent decreased from 34% in 1992 to 22% in 1996.
- In 1992, 43% of the eighth graders in Braintree scored at Level 1 or Below Level 1 in social studies; in 1996, 39% of the eighth graders scored there. The percent of students achieving Level 2 in social studies increased from 25% in 1992 to 37% in 1996. In 1992, 32% of the Braintree eighth graders scored in Levels 3 and 4; in 1996, 24% of the eighth graders scored there.

#### **GRADE 10**

#### **Scaled Scores**

- Massachusetts began testing tenth graders in 1994. This report will only deal with tenth grade scores or those scores that have occurred since the Education Reform Law of 1993. Please note that only two years of scores are available so the changes made over five administrations at grades 4 and 8 will not be evident in two administrations.
- Scaled scores for reading at grade 10 rose from 1320 in 1994 to 1380 in 1996.
- Tenth grade scaled scores for mathematics increased from 1310 in 1994 and to 1350 in 1996.
- Science scaled scores increased from 1320 in 1994 to 1350 in 1996.
- In social studies, tenth graders scored 1340 in 1994 and 1350 in 1996.
- In 1996, tenth graders at Braintree scored within their comparison score bands in mathematics, science and social studies, and scored slightly above their score bands in reading.

#### **Proficiency Levels**

• Sophomores scoring in Level 1 and Below Level 1 in reading dropped from 49% in 1994 to 37% in 1996. The percent achieving Level 2 increased from 25% in 1994 to 31% in 1996. Twenty-six percent of the tenth graders scored in Level 3 or Level 4 in 1994, and 32% of the tenth graders scored in Levels 3 and 4 in 1996.

- In mathematics, 49% of the sophomores scored at Level 1 or Below Level 1 in 1994. In 1996, 41% of the sophomores scored at Level 1 or Below Level 1. In 1994, 31% scored at Level 2 in Mathematics; in 1996, 33% scored at Level 2 in mathematics. Twenty percent of the sophomores scored in the two highest levels in 1994 while 27% of the sophomores scored at Level 3 and Level 4 in 1996.
- In 1994, 41% of the Braintree tenth graders scored at Level 1 or Below Level 1 in Science. In 1996, 40% of the sophomores scored there. Forty percent of the tenth graders achieved Level 2 in 1994 while 35% achieved Level 2 in 1996. The percentage of students who scored in Level 3 and Level 4 was 20% 1994 and 25% in 1996.
- In social studies, 43% of the tenth graders scored at Level 1 or Below Level 1 in 1994 while in 1996, 37% of the sophomores scored in the two bottom levels. Students scoring in Level 2 increased from 30% in 1994 to 42% 1996. Students achieving the highest levels, Levels 3 and 4, decreased from 27% in 1994 to 21% in 1996.

Appendix D

### BRAINTREE

### **GRADE 4 SCALED SCORES AND COMPARISON SCORE BANDS**

Subject	1988 Total Score	1990 Total Score	1992 Total Score	1994 Total Score	1996 Total Score	1996 Score band
READING	1310	1360	1380	1410	1430	1370-1410
MATHEMATICS	1310	1340	1350	1350	1370	1350-1390
SCIENCE	1320	1360	1360	1380	1410	1380-1420
SOCIAL STUDIES	1310	1350	1380	1380	1400	1360-1400

**GRADE 4 PERCENTAGES OF STUDENTS AT EACH PROFICIENCY LEVEL** 

SUBJECT	92 <1	92 1	92 2	92 3	92 4	94 <1	94 1	94 2	94 3	94 4	96 <1	96 1	96 2	96 3	96 4
READING	6	29	35	28	2	4	28	43	15	11	2	19	45	30	4
MATHEMATICS	4	39	37	19	2	2	32	<b>4</b> 8	16	2	2	24	57	16	1
SCIENCE	3	37	38	20	2	1	28	52	14	5	1	22	53	20	4
SOCIAL STUDIES	3	33	39	21	4	1	28	52	12	7	1	21	58	17	3

Appendix D

#### BRAINTREE

GRADE 6 SCALED SCORES AND COMPARISON SCORE DANDS										
Subject	1988 Total Score	1990 Total Score	1992 Total Score	1994 Total Score	1996 Total Score	1996 Score band				
READING	1390	1350	1380	1420	1440	1390-1440				
MATHEMATICS	1370	1360	1350	1340	1360	1340-1380				
SCIENCE	1310	1350	1360	1350	1370	1350-1400				
SOCIAL STUDIES	1360	1370	1350	1360	1370	1330-1380				

### GRADE 8 SCALED SCORES AND COMPARISON SCORE BANDS

### GRADE 8 PERCENTAGES OF STUDENTS AT EACH PROFICIENCY LEVEL

SUBJECT	92 <1	92 1	92 2	92 3	92 4	94 <1	94 1	94 2	94 3	94 4	96 <1	96 1	96 2	96 3	96 4
READING	10	28	28	27	7	7	25	37	16	14	5	15	45	24	10
MATHEMATICS	5	41	29	20	5	5	33	43	14	5	4	31	40	18	6
SCIENCE	4	38	23	29	5	7	29	43	14	7	6	26	45	19	3
SOCIAL STUDIES	6	37	25	28	4	8	33	33	18	8	5	34	37	19	5

### Appendix D

#### BRAINTREE

GRADE IN SCALED SCORES AND COMITARISON SCORE DANDS											
Subject	1994 Total Score	1996 Total Score	1996 Score band								
READING	1320	1380	1310-1360								
MATHEMATICS	1310	1350	1310-1360								
SCIENCE	1320	1350	1320-1370								
SOCIAL STUDIES	1340	1350	1300-1350								

#### GRADE 10 SCALED SCORES AND COMPARISON SCORE BANDS

#### GRADE 10 PERCENTAGES OF STUDENTS AT EACH PROFICIENCY LEVEL

SUBJECT	1994 <1	1994 1	1994 2	1994 3	1994 4	1996 <1	1996 1	1996 2	1996 3	1996 4
READING	14	35	25	14	12	9	28	31	23	9
MATHEMATICS	10	39	31	12	8	7	34	33	21	6
SCIENCE	10	31	40	15	5	7	33	35	21	4
SOCIAL STUDIES	13	30	30	21	6	9	28	42	15	6

EMP	LOYEE SURVEY Appendix E	R	ating S	cale		
Brain	tree -Teachers	Yes/No Questions		Opinion		
		yes	1&2	Good to Excellent		
		No	4 &5	Not good, inadequate		
	ercentages may not add to lue to rounding	Not sure, one way or the other	-	OK - could be better, could be worse		
1	Education Reform	1&2	4 & 5	3		
1.a.	Are you familiar with the issues of Education Reform, the Law passed in 1993?	90%	5%	5%		
1.b.	Do you feel you have a good understanding of the purpose and the goals of the law?	82%	5%	12%		
1.c.	Do you feel that there is a lot of confusion about what Education Reform is all about?	64%	12%	24%		
1.d.	Do you feel the issues of Education Reform are considered when school district plans are made?	78%	5%	16%		
1.e.	Do you feel the issues of Education Reform are considered when school-based plans are made?	79%	8%	13%		
1.f.	In your opinion is the school district taking positive steps to					

	when school-based plans are made?	79%	8%	13%
1.f.	In your opinion is the school district taking positive steps to			
	improve education?	76%	5%	18%
1.g.	Do you feel your job has changed because of Education			
Ŭ	Reform?	69%	16%	15%
1.h.	Do you think there has been an improvement in student			
	achievement in your school due to Education Reform?	31%	30%	39%
1.i.	Do you think the improvements in education at the school would			
	have happened without Education Reform?	65%	10%	25%
1.j.	Have you perceived an increase in school funding tied directly to			
-	improvements in education in your district?	14%	53%	33%

2	Educational Goals and Objectives	1&2	4 & 5	3
2.a.	Are the school administration's goals and objectives generally			
	clear and understandable?	83%	5%	12%
2.b.	Are you clear about the school district's goals and objectives as			
	they relate to your own job?	81%	7%	12%
2.c.	Are there indicators issued to measure progress toward goals			
	and objectives generally?	67%	13%	20%
2.d.	Are there indicators used to measure your progress toward			
	goals and objectives?	74%	7%	19%
2.e.	Do you have a role in developing these goals and objectives?	75%	18%	8%

3	Curriculum	1&2	4 & 5	3
3.a.	Do you believe that your district's curriculum is coherent and			
	sequential?	82%	8%	10%
3.b.	Do you believe that your curriculum is challenging and tied to			
	preparing students for life after secondary school?	85%	2%	13%
3.c.	Is there a coherent, on-going effort within the district to keep			
	curriculum current with evolving trends and best practices in			
	pedagogy and educational research?	82%	7%	11%
3.d.	Do teachers play an important role in reviewing and revising			
	curriculum in the district?	89%	5%	6%
3.e.	Will the curriculum now in use in your school improve student			
	test scores?	58%	5%	36%
3.f.	Do you believe that the curriculum content does not impact test			
	scores as much as how a subject is taught by a teacher?	67%	10%	23%

4	Planning	1&2	4 & 5	3
4.a.	Is the planning for important issues (e.g. curriculum, budgetary,			
	etc.) within the district a top-down process?	73%	10%	17%
	If the answer is "Definitely yes" (1) or "Generally yes" (2), is			
	there an important role for teachers and professional staff in the			
	planning process?	58%	23%	20%
4.b.	If staff does not have an important role in developing plans, are			
	decisions made by the central office/school committee explained			
	so that you can understand the basis for the decision/policy?			
		39%	28%	33%

5	Communications and Mission Statement	1&2	4 & 5	3
5.a.	Is there adequate on-going communication between teachers and district administrators? In other words, do you think that you know what is going on in the district?	55%	24%	22%
5.b.	Is there adequate communication between you and your superiors?	81%	14%	5%
5.c.	Is there a mission statement in place for your school district?	95%	14%	5%
5.d.	Is there a mission statement in place for your school?	91%	2%	7%
5.e.	Does the mission statement define how the school is run, and how students are taught?	78%	7%	15%
	Are these mission statements applied in the operation of the school and the teaching of students?	77%	7%	16%

6	Budget Process	1&2	4 & 5	3
6.a.	Do you understand your school budget process?	42%	38%	19%
6.b	Do you understand how the budget process impacts your department?	56%	26%	18%
6.c.	Is the school budgeting process fair and equitable?	18%	34%	48%
	Are budgetary needs solicited and adequately addressed in the budget process?	20%	33%	47%
6.e.	Once the budget is approved and implemented, does the allocation and use of funds match the publicly stated purposes?	31%	13%	56%
6.f.	Given the circumstances, the school department seems to be doing the best it can within the school budget process.	43%	25%	33%
6.g.	Are there deficiencies in this process?	50%	11%	38%

7	Professional Development	1&2	4 & 5	3
	Is there an adequate professional development program in your school?	72%	14%	15%
	Is the program designed to meet school needs and tied to the new frameworks and assessments?	78%	6%	16%
7.c.	Is the program designed to change the content of pedagogy in classrooms?	54%	15%	31%
7.d.	Are there deficiencies in the professional development program?	45%	31%	24%
	Did you participate in the professional development program in the 1997/98 school year?	95%	5%	1%
	Professional development is making a difference and will improve education in my school district.	69%	12%	18%

8	Supplies	1&2	4 & 5	3
8.a.	Have you generally received sufficient and appropriate supplies to do your job?	50%	34%	17%
8.b.	Have you generally received sufficient and appropriate basic educational supplies (e.g. chalk, paper, pens, pencils, etc.) to do your job?	71%	19%	10%
8.c.	Have you generally been supplied with a sufficient number of a current edition of textbooks, at least one per student?	66%	23%	11%
8.d.	Are students given a second copy of these textbooks to keep at home during the year?	2%	94%	5%
8.e.	Have you generally been supplied with sufficient ancillary curriculum materials (e.g. current maps, lab supplies, videos, etc.)?	27%	56%	17%
8.f.	Is the process for obtaining supplies and materials effective, time sensitive and responsive to your classroom needs?	43%	37%	20%

9	Facilities	1&2	4 & 5	3
9.a.	How would you rate the overall state of school facilities (e.g. cleanliness, security, maintenance, structural integrity)?	36%	36%	29%
9.b.	How would you rate the overall state of classrooms, labs, and other teaching rooms/areas?	35%	35%	30%
9.c.	How would you rate the overall state of the common areas (e.g. hallways, stairwells, and cafeteria)?	48%	29%	23%
9.d.	How would you rate the overall state of the areas outside of the building (e.g. playgrounds, walk-ways and grounds)?	50%	29%	21%
	Would you agree with the following statement: "The school administration makes an effort to provide a clean and safe working environment."	56%	22%	21%

10	Computers and other Educational Technology	1&2	4 & 5	3
	Are computers and other technological tools a significant part of			
	the management practices at the school?	72%	14%	14%
	Are computers and other technological tools a significant part of			
	the instructional practices at the school?	60%	28%	13%
	In terms of student usage, are computers generally available			
	only in a computer laboratory setting or library/media center?	84%	13%	2%
10.d.	How many computers are located in your classroom?		1.6 average	
10.e.	Do you have a school computer provided for and dedicated for			
	your own use? If yes, go to question 10.g.	24%	73%	2%
10.f.	Is there a school computer provided for and shared by you and			
	other teachers?	75%	20%	6%
10.g.	Are there computers available for and used on a regular basis			
-	by students?	64%	16%	21%
10.h.	About how many minutes a week does each student use a		79 minutes	
	computer? (Estimated)min.		79 minutes	
10.i.	Is the number of available computers sufficient for the number of			
	students?	47%	37%	16%
10.j.	Are the computers in good working order?	63%	18%	18%
10.k.	Are the software packages in the computers uniform and			
	consistent with the instructional level to be provided?	59%	12%	29%
10.I.	Is there a policy or program providing for computer training for			
	teachers on software and computers used by students?	58%	25%	17%

#### BRAINTREE PUBLIC SCHOOLS

#### SUPERINTENDENT'S STATEMENT - EDUCATION REFORM

The Braintree Public Schools have long enjoyed the reputation of a quality school system. Over the years attempts have been made to provide a wide range of course offerings to students to address their individual needs and interests. The passage of the Education Reform Act of 1993 required us to review our curriculum, reexamine our instructional practices, and reassess student performance. In addition, we were required to take steps to meet the new requirements relating to personnel, school governance, and finance. Significant progress has been made in all areas during this period of time. Specifically, the following have been accomplished:

- A Long Range Strategic Plan was developed by representative parents, teachers, administrators, students and community representatives designed to guide the school system in the areas of curriculum and instruction, parent/community involvement, professional development, technology, special programs, physical facilities and funding over a five year period.
- A Mission Statement and Beliefs were developed which serve as guiding principles systemwide for the Braintree Public Schools.
- All curriculum areas were reviewed and modifications made to be aligned with the State Curriculum Frameworks.
- A comprehensive Technology Plan was submitted and approved by the Department of Education. New computer labs have been installed in all schools, and all schools are wired and connected to the Internet.
- Extensive staff development opportunities were provided by the Systemwide Professional Development Council, Building Principals, Curriculum Directors and Central Administration. Two full Professional Development days replaced four early release days.
- The Plan to Eliminate the General Track was developed and submitted to the Department of Education. New course offerings and expansion of career education have supported the plan.
- A new Homework Policy was developed and implemented aimed at enhancing student achievement.
- School Councils were established and submit annual School Improvement Plans to the School Committee for approval. Each year plans show improvement and reflect the best collective thinking on how to improve individual schools.
- Schools have made significant efforts to insure time on task in the classroom by minimizing disruptions, making effective use of instructional strategies and management of the curriculum.

- New courses/programs are continuously updated and designed to enhance student achievement and support the curriculum frameworks.
- Program schedules that meet the required student learning time were approved by the School Committee and submitted to the Department of Education. In addition, high school graduation requirements were increased to reflect the high standards and rigor promoted by the School system.
- Our schools have been committed to the on-going evaluation of student learning through participation in a standardized assessment program and by continuously reviewing and refining internal assessment measures.
- Continued efforts to expand the "inclusion model" with special needs students has occurred. Significant expansion of substantially separate special needs programs has allowed for more students to be educated in their home community in a cost-effective manner.
- A Long Range Capital Plan was developed and implemented designed to maintain facilities in an adequate fashion.
- The School Committee adopted Performance Standards for teachers and administrators as required. The end result was an evaluation system aimed at enhancing instructional practices and improving student achievement.
- The School Committee established a Health Advisory Council as required, resulting in a K-12 Health curriculum.
- Schools developed programs designed to enhance knowledge, understanding and sensitivity toward people of different racial, ethnic and cultural backgrounds.
- Conflict resolution/violence prevention programs were developed at the elementary, middle and high school levels.
- The School Committee has held annual public hearings and voted not to participate in School Choice.
- Schools have made a conscious effort to encourage involvement of parents through special programs, activities and communication via newsletters.
- A Memorandum of Understanding was developed promoting cooperation with the Police Department and District Attorney's Office in order to ensure a safe and orderly environment in our schools.

Superintendent's Statement – Education Reform

Page 3

## BARRIERS TO EDUCATION REFORM

- With the passage of the Education Reform Act additional funds have come to the community. However, because of the funding formula, Braintree is eligible only for the minimum allotment. In addition, the minimum net spending amount is insufficient to support our educational programs from year to year. The Town has had to contribute a significant amount each year to, at least, maintain programs. Reductions in programs have been necessary in some years. It should be pointed out, that although state aid has increased over the last few years, the level of aid to the community this year has just reached the amount received by the Town in 1988.
- Although significant efforts have been made to operate special needs programs in a cost effective manner, increases in special education services and spending have limited progress within the mainstream.

#### PLANS OVER THE NEXT THREE-FIVE YEARS

The Braintree Schools have moved in a very planned and deliberate manner to provide for continuous improvement in student achievement and teacher instruction. This has been accomplished through annual systemwide goals and objectives approved by the School Committee and supported by individual schools and departments.

- Over the next three to five years, results on the Massachusetts Comprehensive Assessment System will play a major role on curriculum modifications that need to occur as well as any changes in instructional practices. Remedial programs will be established to help those students unable to meet criteria established for successful performance.
- The School Department has developed a comprehensive technology plan. Continued efforts will be aimed towards enhancing student learning via the use of technology.
- Projected enrollments over the next five years show an increase in student population. Efforts will be made to ensure adequate space to accommodate the increase.
- Continued efforts will be made to insure that all physical plants are maintained adequately through a comprehensive Capital Plan.

Submitted by:

Peter A. Kurzberg Superintendent of Schools

	Braintree Average	-	Point
All Students	Scaled Score	Scaled Score	Difference
Orada A			
Grade 4:	004	220	4
English Language Arts Mathematics	234 235	230 234	4 1
Science & Technology	235	234	4
Science & rechnology	242	230	4
Grade 8:			
English Language Arts	242	237	5
Mathematics	229	227	2
Science & Technology	230	225	5
Grade 10:			
English Language Arts	240	230	10
Mathematics	228	222	6
Science & Technology	228	225	3
All Students attending the	his district for Three	Years or More	
y			
Grade 4:			
English Language Arts	235	232	3
Mathematics	236	235	1
Science & Technology	242	239	3
• • •			
Grade 8:	0.40	000	_
English Language Arts	243	238	5
Mathematics	231	228	3
Science & Technology	231	227	4
Grade 10:			
English Language Arts	243	234	9
Mathematics	230	225	5
Science & Technology	230	228	2
Note: Data provided by DO			

## Comparison of MCAS Average Scaled Scores

Note: Data provided by DOE

December 23, 1998

Mr. F. Ellis Fitzpatrick Division of Local Services P.O. Box 9655 Boston, MA 02114-9655

Dear Mr. Fitzpatrick,

Thank you for the opportunity to respond to the report shared with us at the exit conference on Monday, December 21, 1998. We have a few comments to make.

First, and most important, we believe the report is an accurate reflection of the Braintree Public Schools in terms of its priorities, how it operates, and how it spends its money. We are pleased with the findings and proud of our school system.

In regard to specific comments about the report, we would offer the following:

- 1) In terms of notifying the D.O.E. regarding expenditures for professional development, books and instructional equipment, extended/expanded programs and extraordinary maintenance, this information is included in the End of the Year Report. If this reporting mechanism is not sufficient, D.O.E. should notify school districts accordingly. (pg. 20)
- 2) Average teacher salaries are directly impacted by the number of teachers falling at various steps on the salary schedule. If the purpose of using this information is to compare levels of compensation, perhaps a more accurate measure would be to compare salary schedules with similar communities or in similar geographical areas. Attached please find a sample we have used which shows that our beginning teachers are at the lower end of the salary range and our most experienced teachers are in the middle range with selected communities. (pg. 25)

Mr. F. Ellis Fitzpatrick Page 2 December 23, 1998

- 3) We have increased our professional development allotment substantially in Fiscal Years '98 and '99 and do meet the required spending for F.Y. 99. (pg. 29)
- 4) A number of years ago, merit pay was instituted for administrators. It created poor morale and was not an effective tool to enhance performance. We have a strong administrative team and believe that individuals, when performing their duties adequately, should be compensated equally for comparable duties and responsibilities. (pg. 40)

Finally, we would like to commend the entire audit team for the professional manner in which the audit was conducted.

Thank you again for the opportunity to comment on the draft report.

Sincerely,

Peter A. Kurzberg Superintendent of Schools

PAK att

## Appendix H For 1997 -1998

	<u>BA Min</u>	<u>Rank</u>	MA+30/Max	<u>Rank</u>
Braintree	\$26,131	10	\$54,918	7
Brookline	29,919	2	62,853	3
Dedham	28,201	5	54,534	9
Framingham	26,924	8	57,455	6
Holbrook	24,767	15	51,863	13
Milton	25,952	11	53,750	10
Natick	27,125	7	58,355	5
Needham	28,983	4	60,531	4
Newton	30,731	1	63,431	1
Norwood	26,668	9	51,838	15
Quincy	25,272	14	52,313	11
Randolph	25,633	12	51,843	14
Walpole	25,441	13	54,760	8
Wellesley	29,398	3	63,097	2
Weymouth	27,553	6	52,075	12

## ACKNOWLEDGMENTS

This report was prepared by the staff of the Education Audit Bureau, Department of Revenue, Division of Local Services.

#### **Education Audit Bureau**

Dieter H. Wahl, Director

#### **Project Team**

F. Ellis FitzPatrick Auditor - In - Charge

> Brian Barry Auditor

Anthony Rassias Auditor

Michael Karagosian Auditor

The Division of Local Services would like to acknowledge the professional cooperation extended to the audit team by the Department of Education, Braintree Public Schools Superintendent Dr. Peter A. Kurzberg and the school department staff.