The Research Bureau

# Improving Student Performance Under Education Reform: Practices In Urban Schools

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# EXECUTIVE SUMMARY

The Federal No Child Left Behind Act (NCLB) of 2001 established the following goal: every child is expected to reach a level of proficiency in English language arts and mathematics by 2014. While a number of public schools in Worcester are doing well, the Massachusetts Department of Education (Mass DOE) has determined that 29 out of 43 schools in the district are not on track to achieve that goal. These schools have been labeled as needing improvement, corrective action, or restructuring. To assess what factors might contribute to improved student performance, The Research Bureau reviewed WPS resources – both human and financial – available to educate students since the passage of the Massachusetts Education Reform Act of 1993. Then we examined a number of higher-performing urban schools and identified practices that have contributed to their success which could be replicated in other urban settings.

The Research Bureau findings include the following:

- The timeframe studied between FY94 and FY06 may be broken down into two periods based on trends in student enrollment and funding: FY94 to FY02 and FY03 to FY06.
- Student enrollment increased by 18% during the first period, and then declined by 7%. Overall, enrollment has increased by 10% since FY94.
- Teacher salaries increased by almost 92% between FY94 and FY06, rising from $59 million to $114 million.
- Total health insurance costs increased by 168%, from almost $14 million to $37 million.
- Per pupil spending increased from $5,417 in FY94 to $10,035 in FY06, an 85% increase.
- Between FY94 and FY06, total personnel increased by 29% while salary expenses increased by 92%.
- MCAS performance for the district as a whole has been mixed: tenth-graders have improved while fourth- and eighth-grade scores have remained mostly flat since testing began in FY98.

Based on a survey of the literature and site visits to six higher-performing urban schools, The Research Bureau identified a number of common characteristics within these schools, which may contribute to higher student achievement. These include the following:

- Principals have authority to select and assign staff to positions based on teacher qualifications and performance without regard to seniority.
- In charter schools and pilot schools (in-district charter schools), principals in conjunction with their boards of directors, have authority over the budget, the length of the school day and year, the class schedule, the length of periods, and professional development.
- Faculty are evaluated for applicable content knowledge and overall performance tied in part to solid growth in student learning and commitment to the school's culture, educational model and improvement strategy.

- Higher performing schools establish a "school culture," that is, a set of core beliefs and expectations that are internalized so that they guide actions of both staff and students. School culture generally sets and communicates high standards for student achievement and student conduct, and holds students accountable for their performance as well as their behavior. School culture may include a code of conduct and a dress code.

Based on these findings, The Research Bureau makes the following recommendations:

- The School Committee and the Educational Association of Worcester (EAW) should amend the contract to enable school principals to select and assign staff to positions in a school based on teacher qualifications and performance without regard to seniority.
- The School Committee and the EAW should amend the contract to allow all schools, particularly underperforming schools, the option of converting to pilot schools, which give schools both greater authority for school governance and greater responsibility for student performance.

# BACKGROUND

A major alarm that all was not rosy with the American education system was sounded in April 1983, when the National Commission on Excellence in Education issued its report "A Nation at Risk: The Imperative for Educational Reform."[1] The report warned that American students were deficient in academic achievement compared to those in other nations, and such inadequate performance would threaten the future of American prosperity and security.[2] States and local governments responded to this warning first with increased spending; subsequently some reforms to the education system were introduced.

The Massachusetts Education Reform Act (MERA) of 1993 combined increased funding with requirements for greater accountability for student performance. Massachusetts schools received almost $28 billion in aid from the state between FY94 and FY06. In exchange, school districts have been required to align their curricula to standards and curriculum frameworks established by the State Board of Education; students must pass 10th grade exams in English language arts and math to graduate from high school; and beginning teachers must pass a rigorous exam in order to become licensed in the Massachusetts public schools. In 2001, the Federal government passed the No Child Left Behind Act (NCLB), which requires all students (regardless of race, income level or disability) to meet a standard of proficiency in English language arts and mathematics by 2014. Each state is required to set its own proficiency standards. Nonetheless, according to a 2006 study by The Center for Education Reform, "American students continue to lag behind students internationally, a trend that is threatening our nation's global standing."[3] Despite spending more than $11,000 per student annually on education, the United States ranks towards the bottom in international testing and is forced to dedicate $16.6 billion each year to remedial education for high school graduates who still lack the skills needed to go on to college or join the work force. This view was echoed by the Commission on the Skills of the American Workforce: "American students and young adults place anywhere from the middle to the bottom of the pack in all three continuing comparative studies of achievement in mathematics, science, and general literacy in the advanced industrial nations."[4]

[1] National Commission on Excellence in Education. *A Nation at Risk: The Imperative for Educational Reform,* http://www.ed.gov/pubs/NatAtRisk/index.html (February 2007).
[2] The disparity in test scores between the Untied States and other nations may be attributed partly to the U.S. policy of requiring all students to attend school until the age of 16, whereas other nations, because they have different education paths based on student ability, are not testing the entire range of students, and those who are tested, are for the most part, older.
[3] *The American Education Diet: Can U.S. Students Survive on Junk Food?* CER Action Paper, September 26, 2006 http://www.edreform.com
[4] National Center on Education and the Economy. *Tough Choices or Tough Times: The Report of the New Commission on the Skills of the American Workforce,* http://www.skillscommission.org/executive.htm (December 2006).

## State and Federal Legislation

### *Massachusetts Education Reform Act of 1993 (MERA)*

MERA requires annual testing in selected grades to measure the performance of students, schools, and districts based on learning standards contained in the Massachusetts Curriculum Frameworks.[5] MCAS tests were first administered in May 1998; new tests were added between 2001 and 2006. In spring, 2006, all students in grades 3-8 and 10 participated in English language arts/reading and mathematics tests (as required by NCLB). Beginning with the class of 2003, students are required to earn a Competency Determination of 220 (Needs Improvement) or better on the MCAS in order to graduate from high school. Students who fail to meet the standard on the first try may retake the test multiple times to graduate. They must also meet the academic requirements of the district in which they attend school.

### *No Child Left Behind (NCLB)*

As noted earlier, NCLB requires states to establish academic standards that will lead all students to achieve proficiency in English language arts and math by 2014. Under NCLB, states will not receive Title 1 funds unless they establish statewide standards and exams. School performance is measured by statewide tests that evaluate student achievement as a whole and within racial, socio-economic, and disability subgroups. Schools must be evaluated annually to determine whether they have achieved adequate yearly progress (AYP) as determined by each state. If a school fails to reach AYP two years in a row, it is labeled in need of improvement and students have the option of attending a different school within their district. After three years of failure, a school is labeled in need of corrective action and must offer supplemental services such as tutoring, remediation, and academic intervention. After extended failure of five years, the school is labeled as needing restructuring, which can result in staff replacement, school reorganization, or even state takeover.[6] In Massachusetts, MCAS, attendance rate, and now graduation rate function as the performance measures for the state's schools by which AYP is determined.

[5] http://www.doe.mass.edu/mcas/about1.html

[6] See www.doe.mass.edu/sda/ayp/2007/default.html for a description of how AYP is calculated in Massachusetts.

# INTRODUCTION

A 2006 report prepared by the US Chamber of Commerce rated the educational effectiveness of the K-12 school systems in each of the 50 states and Washington, DC. Massachusetts received the highest rating (an "A") in seven of the nine categories examined: students' academic achievement, the academic achievement of low-income and minority students, the return on investment (in education spending), the rigor of the state standards, truth in advertising about student proficiency, student readiness for college or the workplace, and ensuring minimum standards for teachers.[7]

While Massachusetts has fared better than the nation as a whole, scoring first in the nation on the National Assessment of Education Progress (NAEP), the only national norm-referenced test, and showing yearly improvement on both math and verbal SATs, according to Education Commissioner David Driscoll, "we're not having enough kids graduating from high school at a high level."[8] This is especially true for urban districts, which are home to many more low-income, limited English proficient, and minority students who tend to score lower on standardized tests than students living in more affluent suburban districts. [9]

Based on Massachusetts Comprehensive Assessment System (MCAS) test scores in English language arts and math and other measures (e.g., attendance rates), several of Worcester's schools--University Park Campus School, McGrath Elementary, and Clark Street Community School-- are doing well.[10] However, 29 of 43 schools in Worcester have been identified by the state as needing improvement, corrective action or restructuring. In many of those schools, it is due to the poor performance of subgroups of the population, which include limited English proficient (LEP), low income, special education, and racial and ethnic minorities. The WPS have received "low" and "very low" performance ratings in English language arts and mathematics, respectively, from the Massachusetts Department of Education.[11]

The first part of this report will examine the district's resources available to educate students since the passage of MERA. It will then review the academic performance of WPS students since the implementation of MCAS. The second part of the report will summarize the findings of site visits to six schools with similar demographics to those in Worcester to understand what contributes to their higher performance on MCAS and whether those elements can be replicated. The final section will make recommendations aimed at improving student achievement.

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[7] US Chamber of Commerce. *Leaders and Laggards: A State-by State Report Card on Educational Effectiveness,* http://www.uschamber.com/ (March 2007).
[8] Maria Sacchetti, "New Governor to Face Test on Student Achievement," *The Boston Globe,* Sept 5, 2006, p. A1.
[9] Massachusetts Office of Educational Quality and Accountability and UMass Donohue Institute. *Gaining Traction,* April 2007. http://www.donahue.umassp.edu/docs/gain-trac-report
[10] See *Benchmarking Public Education in Worcester: 2007,* available at www.wrrb.org, for further discussion of WPS performance.
[11] http://profiles.doe.mass.edu/ayp2006/report.asp?district=348

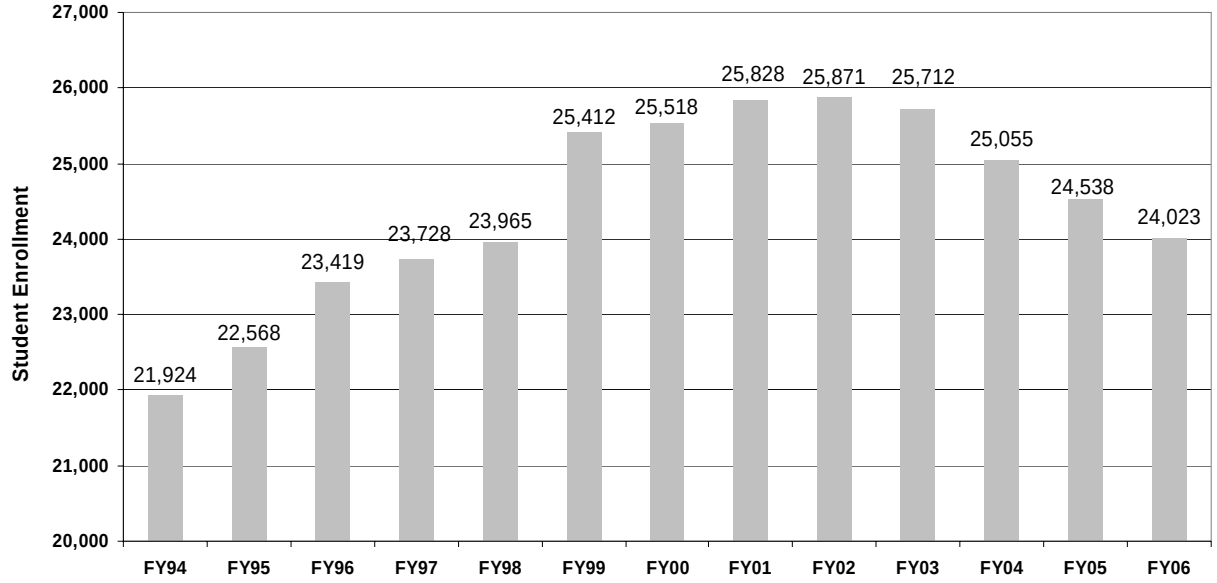
# PART I: WORCESTER PUBLIC SCHOOLS

## Enrollment Overview

On October 1, 2006, 23,603 students were enrolled in the district's 43 schools serving grades Pre-K through 12. In addition, about 1,800 students were enrolled in the two public charter schools in Worcester and about 200 students living in Worcester chose to attend schools in other districts under the state's inter-district school choice program. [12,13]

**Figure 1** shows WPS enrollment for the 13-year period from FY94 to FY06. From FY94 to FY02 the district experienced consistent annual increases in student enrollment, and by FY02, the district had gained 3,947 students (an 18% increase) compared to FY94. However, the more recent trend has been one of steadily declining enrollment. By FY06, there were 1,848 fewer students enrolled compared to the peak just four years earlier, though FY06 enrollment remained well above (+2,099 students) the FY94 level.

**Figure 1: WPS Student Enrollment FY94 to FY06**




*Source: MA Department of Education, Enrollment by Grade Report*

[12]Charter schools are publicly-funded schools that are governed by boards of trustees and operate independently of the school committee in the district in which they are located. Charter schools admit students by lottery; they cannot require an entrance examination nor may they establish other selection criteria. While Seven Hills Public Charter School enrolls only students from Worcester, Abby Kelley Foster Regional Charter School enrolls students from Worcester and eight surrounding towns. In 2006, about 83% of Abby Kelley students were Worcester residents.

[13] The inter-district school choice program allows a parent to enroll his or her child in a school district that is not the child's home district. Because of space limitations, not all school districts accept out-of-district students under this program. Every year the school committee in each school district decides whether it will accept new enrollments under this program and, if so, in what grades. FY08 will be the first year the WPS will provide the option for out-of-district students to attend the WPS. When Worcester students leave for another district such as West Boylston, WPS lose $5,000 per student but retain the difference between Worcester's per-pupil spending ($10,035 in FY06) and $5,000.

As shown in **Table 1**, the demographic make-up of WPS students has changed considerably since MERA was passed in 1993. In brief, there are almost 10% more students today, and a greater proportion of WPS students are low-income, minority and limited English proficient than thirteen years ago. This trend is consistent with findings in other urban districts. [14]

**Table 1: WPS Student Demographics 1994 vs 2006**

| | Percent of Students in the District | |
|---|---|---|
| | **1994** | **2006** |
| African American | 8.9% | 12.5% |
| Asian | 6.2% | 8.0% |
| Hispanic | 24.8% | 33.0% |
| White | 59.8% | 44.3% |
| First Language Not English | 21.3% | 36.2% |
| Limited English Proficient | 6.9% | 15.1% |
| From Low Income Households | 50.1% | 62.3% |
| Qualifying for Special Education Services | 20.2% | 18.8% |
| **Total Enrollment** | **21,924** | **24,023** |

*Data Source: MA Department of Education*

## WPS Budgeted Expenditures

In FY06, the WPS approved budget exceeded $231 million dollars. Since FY94, the district's budget has more than doubled (in real dollars, i.e., adjusting for inflation, the budget has grown by about 50%). The sections that follow will identify and briefly examine trends in spending on salaries, benefits (health insurance and retirement), instructional materials, and per pupil spending.

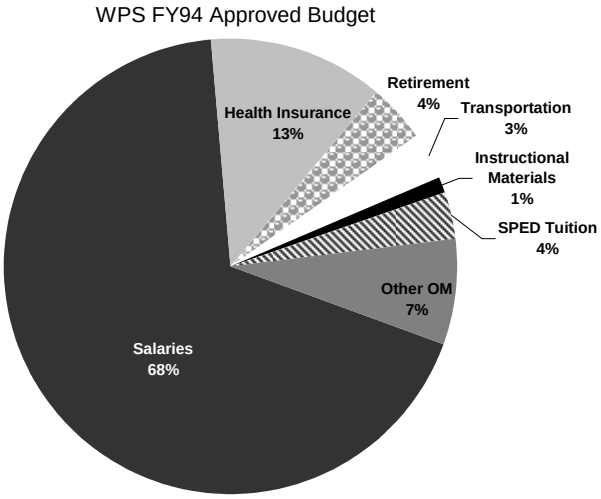
### *Salaries Expenses (All Personnel)*

From FY94 to FY01, the number of FTE WPS personnel increased from 2,572 to 3,949 (a 53.5% increase). This period corresponded to increasing student enrollment, as discussed earlier. These trends ceased though, when in each of the years from FY03 to FY06 the district saw declining student enrollment and staffing levels. In FY06, the district's budget supported 3,309 staff, or 640 fewer positions compared to five years earlier. However, FY06 staffing levels remain about 29% higher (+737 FTE) than they were in FY94 following the passage of MERA.

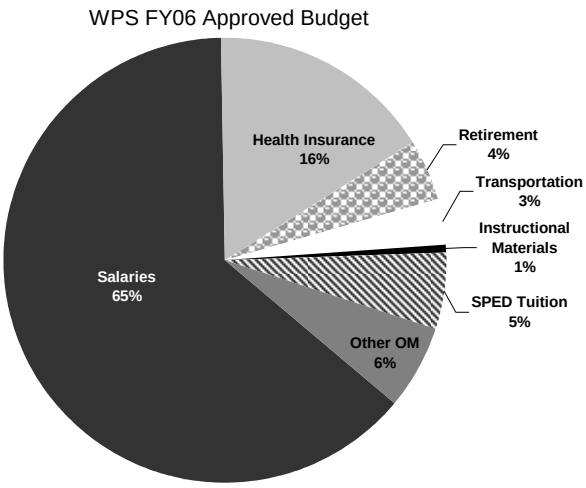
As shown in **Figure 2**, the largest expenditure items in the WPS budget are salaries and benefits (health insurance and retirement) for teachers, administrators, and support staff. These expenditures constituted 85% of the budget in FY06.

[14] *Gaining Traction*. http://www.donahue.umassp.edu/docs/gain-trac-report

**Figure 2: WPS Budget Allocation, FY94 & FY06**



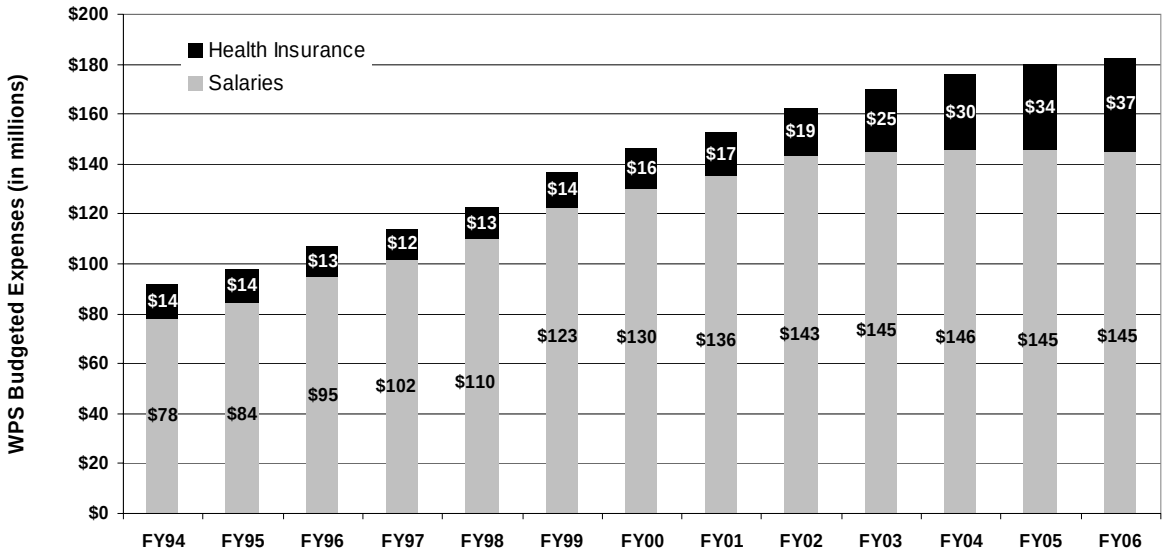

*Source: Worcester Public Schools 1994-95 Budget,* ("FY94 /FY95 Budget Comparison," FY94 Amount Approved)




*Source: Worcester Public Schools 2006-2007 Budget,* ("Budget Comparison FY07 to FY06" FY06 Budget)

**Figure 3** shows the budgeted salary and health insurance expenses for each of the years from FY94 to FY06.

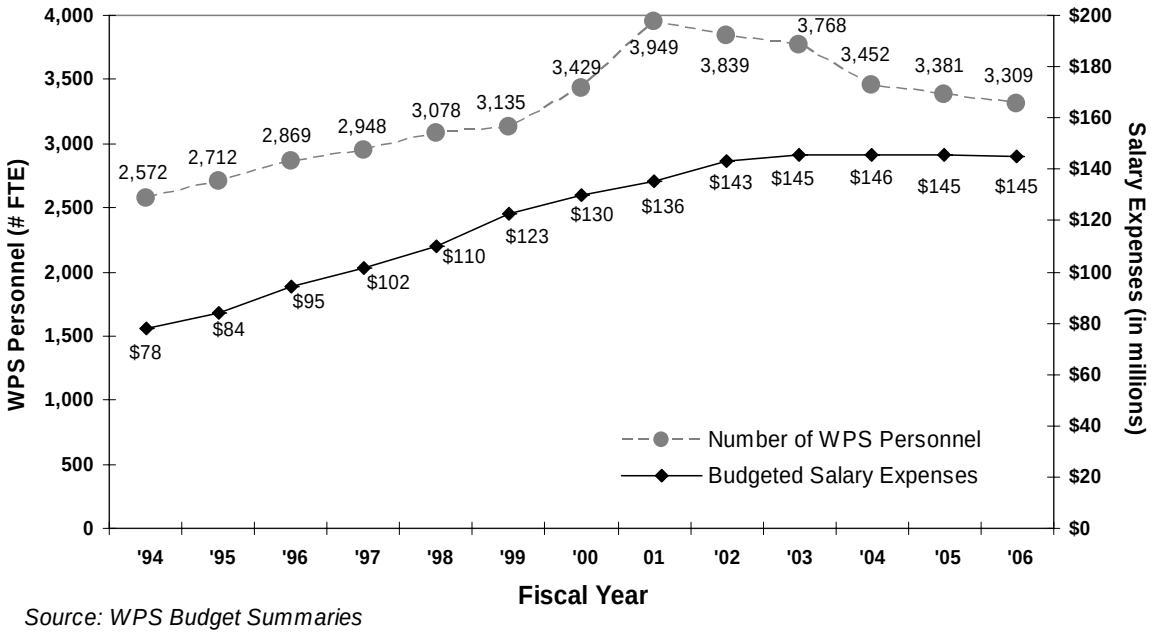
**Figure 3: WPS Budgeted Salary and Health Insurance Expenditures, FY94 to FY06**




*Source: WPS Budgets*

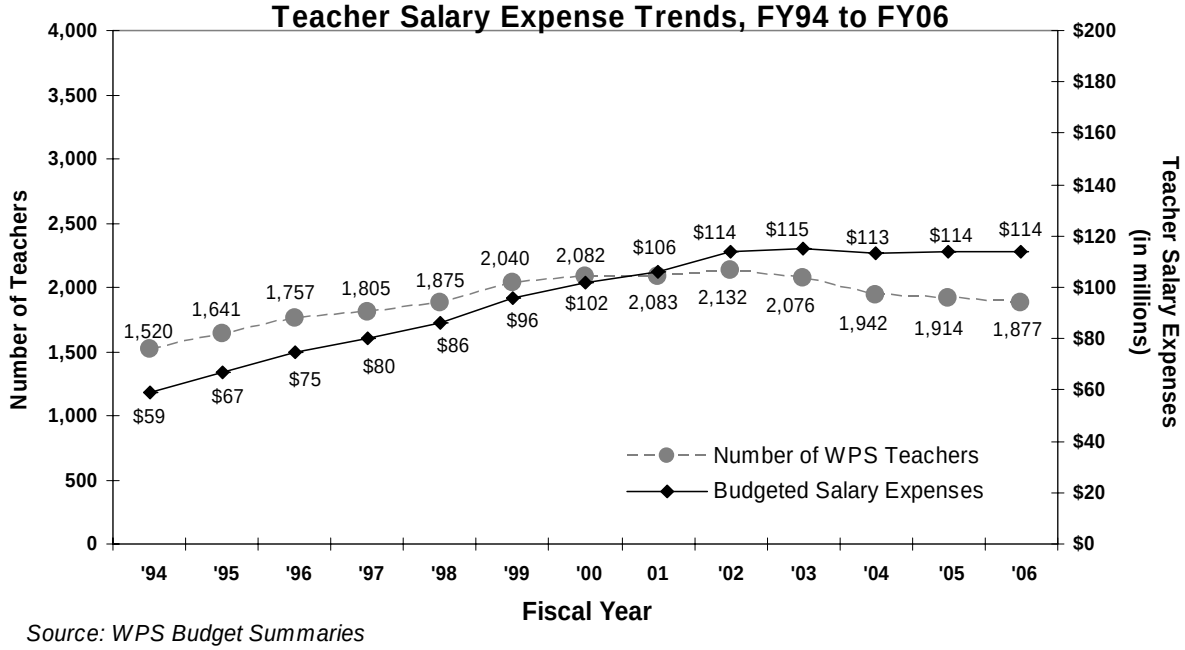
**Figure 4**, which plots the 13-year staffing trend (representing the number of FTE personnel) and the corresponding budgeted salary expenses, shows that until FY01, increased salary expenses were accompanied by increased staffing levels. However, since FY01, salary expenditures have continued to increase annually despite a consistent decline in WPS staffing levels. These data suggest that at best, recent reductions in staffing may have slowed the rate of growth in salary expenses, but they have not yielded reductions in salary expenses.

**Figure 4: WPS Personnel and Salary Trends, FY94 to FY06**




*Source: WPS Budget Summaries*

**Figure 5: WPS Teaching Personnel and Teacher Salary Expense Trends, FY94 to FY06**




*Source: WPS Budget Summaries*

### *Salary Expenses (Teaching Personnel)*

Teachers comprise the greatest proportion of WPS staff (about 56% in FY06). Between FY94 and FY06, the number of budgeted teacher positions increased by 357, from 1,520 to 1,877 (a 24% increase). The number of teachers peaked in FY02 at 2,132, and since then, the number of budgeted teaching positions has declined by 12%. Between FY94 and FY06, teacher salary expenses increased by almost 92% from $59 million to $114 million. **Figure 5** shows that until FY02, salary expenses and the number of teaching positions were moving in the same direction (both were increasing), and that the recent reductions in teaching staff have either decreased or greatly slowed the rate of growth in teacher salary expenses.

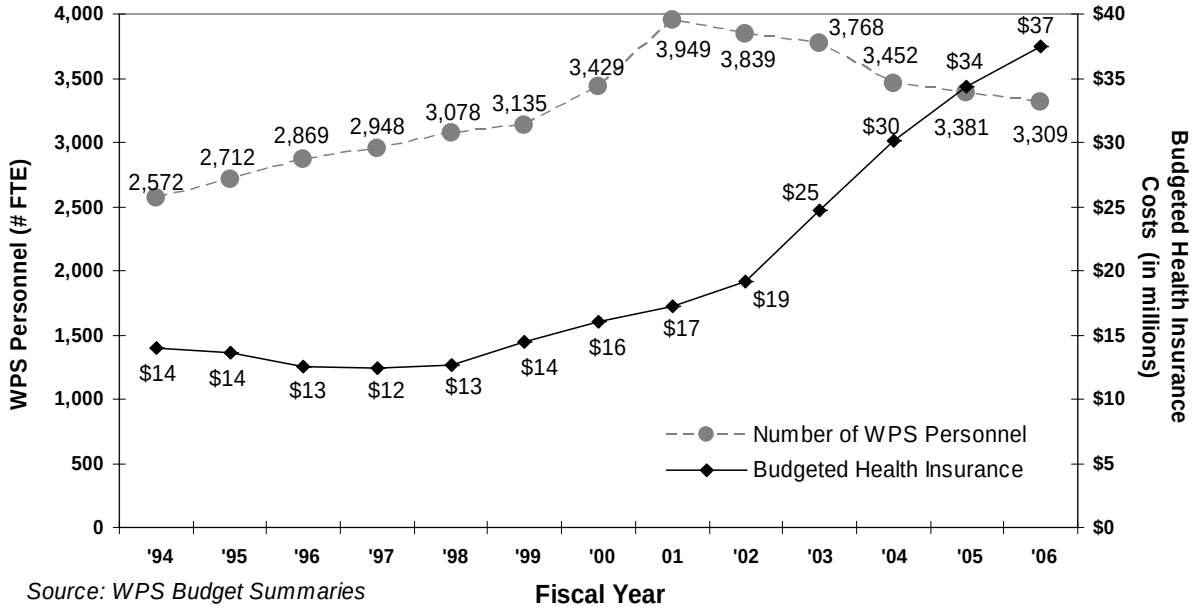
### *Allocation of Teaching Resources in the WPS*

In recent years, the district has allocated more resources at the secondary level in the core subjects to ensure that high school students pass the MCAS exams, which are a prerequisite to graduation. Thus, the number of English, mathematics, science, social studies and English as a Second Language (ESL) teachers increased steadily during the entire period. The number of elementary teachers, foreign language, business, home economics, industrial arts, bilingual, and instructional media positions started to decline in FY00. (**Appendix A** details the number and type of teaching positions in the WPS from FY94 to FY06.)

## *Health Insurance*

Between FY94 and FY06, health insurance costs increased by 168%, from $13.9 million to $37.4 million. While the increase in the employee contribution negotiated in the current contract is expected to slow the annual rate of increase in this account, the yearly increases in costs are

**Figure 6: WPS Personnel and Health Insurance Expense Trends, FY94 to FY06**




*Source: WPS Budget Summaries*

expected to continue, and consume an increasing share of the expenditures. In FY94, employee health insurance costs consumed nearly 13% of the WPS budget; in FY06, it consumed 16% of the district's budget. **Figure 6** shows the 13-year trends WPS staffing levels and the district's budgeted health insurance costs. In FY01, the number of staff peaked at 3,949, and despite steady annual reductions in the number of staff, health insurance costs have more than doubled over the past six years. In fact, the period from FY02 to FY05 saw the greatest rates of annual growth in costs, even while the number of staff declined. By FY06, WPS spending on health insurance benefits amounted to approximately $11,315 per employee.

### *Retirement*

Between FY94 and FY06, retirement costs increased by nearly 120%, from $4.5 to $9.9 million.[15] These costs have constituted about 4% of expenditures since FY94.

### *Instructional materials*

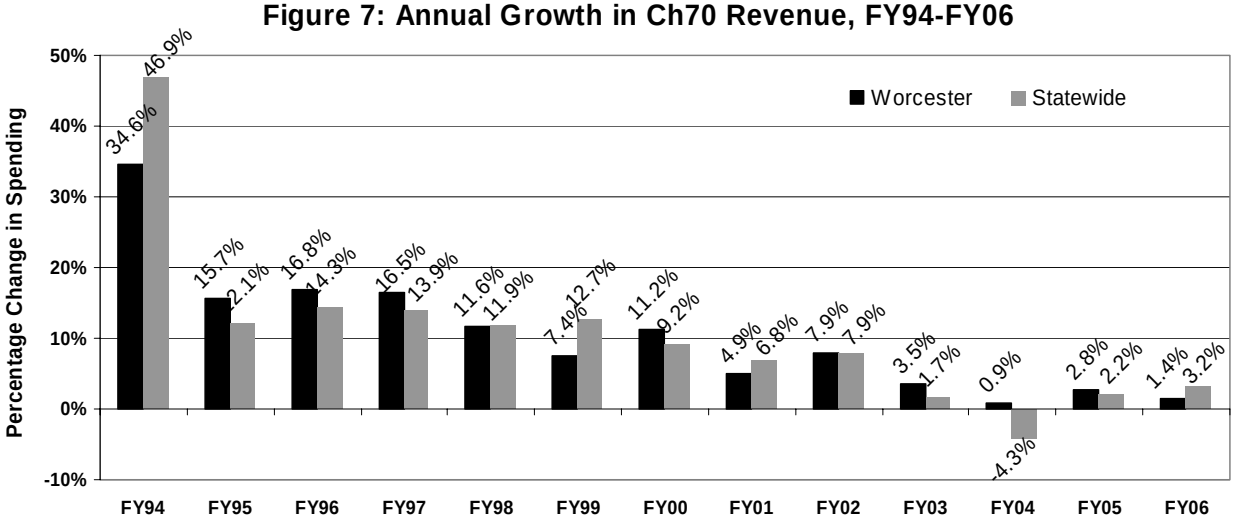
Historically, instructional materials have constituted a relatively small part of the overall budget. In both FY94 and FY06, a mere one percent of the budget was allocated to instructional materials. Spending on instructional materials did comprise about 2% of the budget in the early part of this decade, and then decreased as overall growth in revenues slowed.

## Education Funding

When the Education Reform Act was passed in 1993, the Commonwealth made a commitment that every district would receive funding to provide an adequate education to each child, and that level (or foundation budget), which factored in a community's wealth, would be reached within seven years. As shown in **Figure 7** below, the Commonwealth kept its commitment; until FY00 there were large infusions of Chapter 70 state aid dollars into urban districts, in particular, because they started out furthest from the foundation the state deemed necessary to provide an adequate education for each child. (Statewide, spending more than doubled from $1.16 billion in FY94 to $2.33 billion in FY00.) After FY00, the yearly increases in state aid began to slow, largely because of the recession which necessitated funding cutbacks, but also because no successor formulas were established. However, during the 13-year period from FY94 to FY06, Massachusetts cities and towns received almost $28 billion in Ch70 aid from the Commonwealth (more than twice the cost of the Big Dig). Total spending on education in Massachusetts (state *and* local dollars) over the 13-year period exceeded $88.8 billion; about one-third of this has been Ch70 aid, about two-thirds has come from municipalities, funded primarily by local property taxes.

[15]These costs reflect the WPS contribution for employees participating in the City of Worcester's Retirement System. In general, WPS' non-teaching staff participate in the City's retirement system while its teachers (and some administrators) participate in the Massachusetts Teachers' Retirement System for which there is no assessment against the City or WPS.

**Figure 7: Annual Growth in Ch70 Revenue, FY94-FY06**

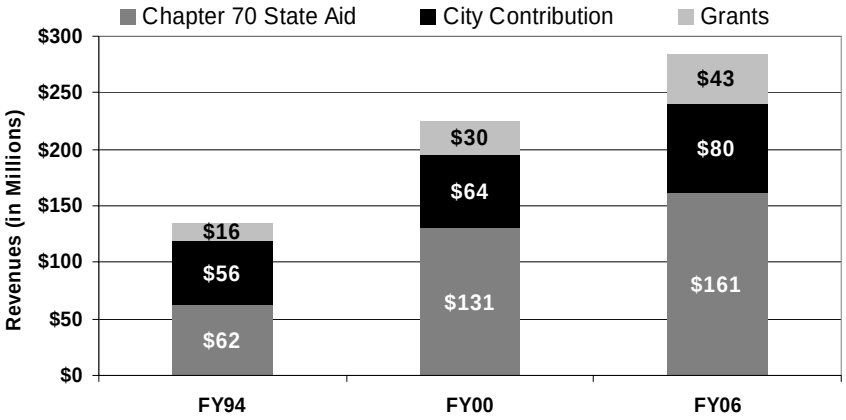



*Source:Massachusetts Department of Revenue, Division of Local Services*

### *WPS Revenues*

As highlighted in **Figure 8**, in FY94, WPS revenues exceeded $134 million, with the largest proportion-- 46.3%-- coming from Chapter 70 State aid, followed by City tax-levy contributions ($56.4 million, or 41.9%), and grants ($15.8 million, or 11.7%). Between FY94 and FY06, total revenues more than doubled, increasing by 111.5% to $284.5 million.

**Figure 8: WPS Revenues by Source**




*Sources: Massachusetts Department of Revenue; WPS Approved Budgets, and WPS Grants Office*

WPS applies for and receives grants for special programs from the state and Federal governments, and sometimes from private foundations. In FY94, WPS received $15.8 million in grants, and by FY06, that figure had almost tripled to $43.5 million. In the last few years, however, grant funding declined by more than $1 million from a high in FY04. Federal grants include the following: Title I provides funding to local school districts to assist low- achieving

students in high-poverty schools meet state academic standards; Title II: Teacher Quality focuses on the preparation, training, recruitment, and retention of teachers; Title III funding provides funds for improving the educational performance of limited English proficient students; Head Start programs provide early-childhood development services in the form of educational, health, nutritional, and social activities for preschool-aged children from low-income families.

In recent years, grants have been used for decreasing student/teacher ratios, providing support and intervention services for struggling students, and professional development, which includes courses to increase teacher content knowledge, workshops on teaching methods, and teacher recruitment and training activities.

### *Per Pupil Spending*

In FY94, per pupil spending was $5,417. In FY00, it was $7,632, and by FY06, per pupil spending had climbed to $10,035, or an overall increase of 85% since FY94.[16] When grant funding is included in the calculation, per pupil spending increased by 93% (from $6,138 to $11,845) over the thirteen-year period.

[16] Calculated by dividing annual Ch70 and general fund revenues by annual student enrollment.

## Academic Performance

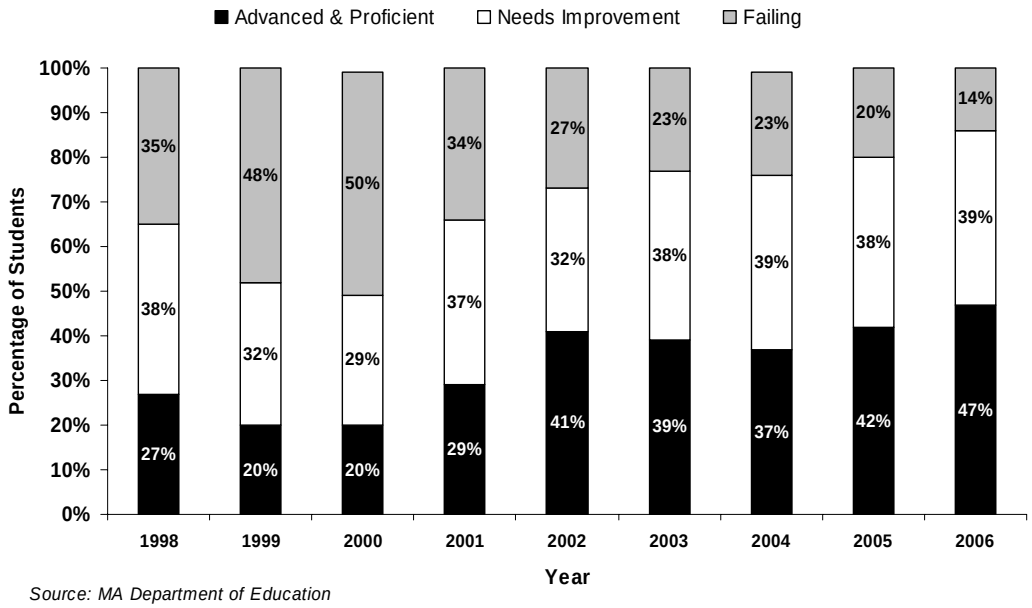
### *MCAS Scores*

In the 2006 Cycle IV Accountability Report for Worcester, the Massachusetts Department of Education determined WPS performance to be "low" in English language arts and "very low" in mathematics.[17] The low ratings reflect the poor performance of WPS students on MCAS tests.

### *Grade 10 Scores*

On the ELA portion of the 2006 MCAS exam, 47% of WPS tenth graders scored proficient or above, 39% in need of improvement, and 14% failed. On the math portion, 41% of tenth graders achieved proficiency or above, 31% scored in need of improvement, and 27% failed. (See **Figures 9** and **10**.) As noted earlier, under NCLB, all students are expected to attain proficiency in English language arts and mathematics by 2014.

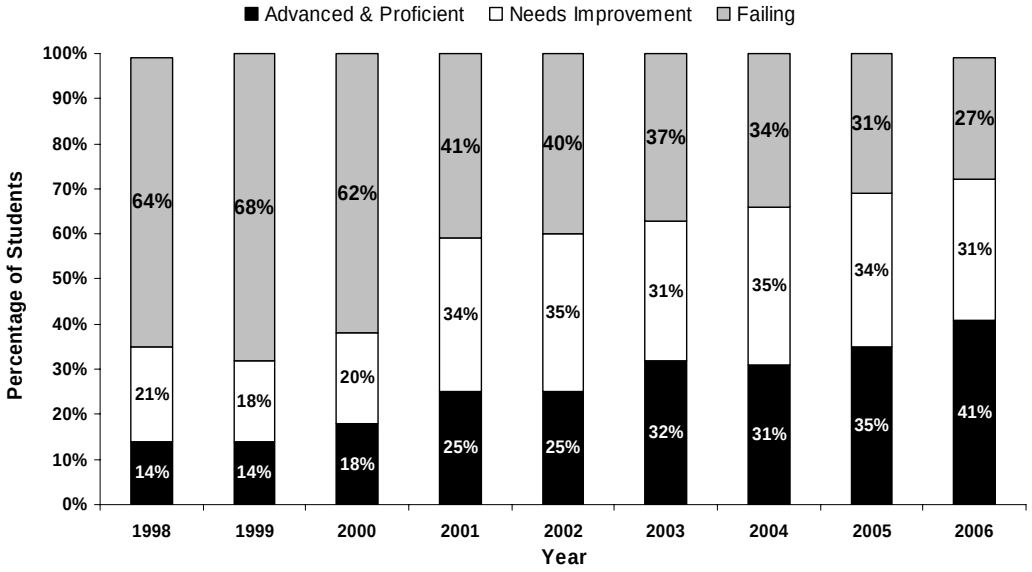
**Figure 9: WPS 10th Grade ELA MCAS Scores, 1998-2006**




*Source: MA Department of Education*

[17] http://profiles.doe.mass.edu/ayp2006/report.asp?district=348

**Figure 10: WPS 10th Grade Math MCAS Scores, 1998-2006**

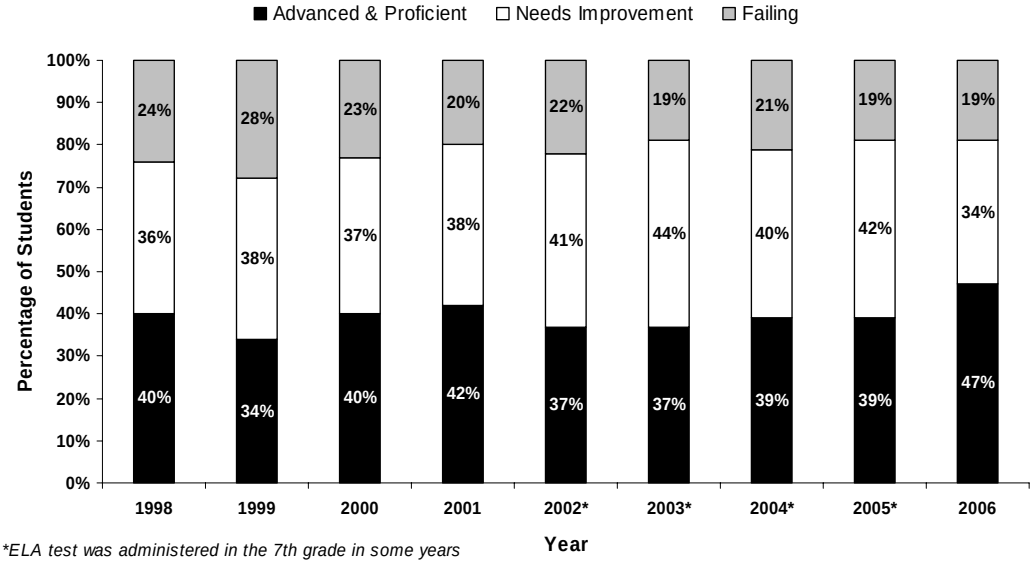



*Source: MA Department of Education*

### *Middle School Scores*

**Figure 11** shows that middle school ELA scores have been improving in recent years, although less than half of the students tested in 2006 scored in the proficient or advanced categories.

**Figure 11: WPS Middle School* ELA MCAS Scores, 1998-2006**

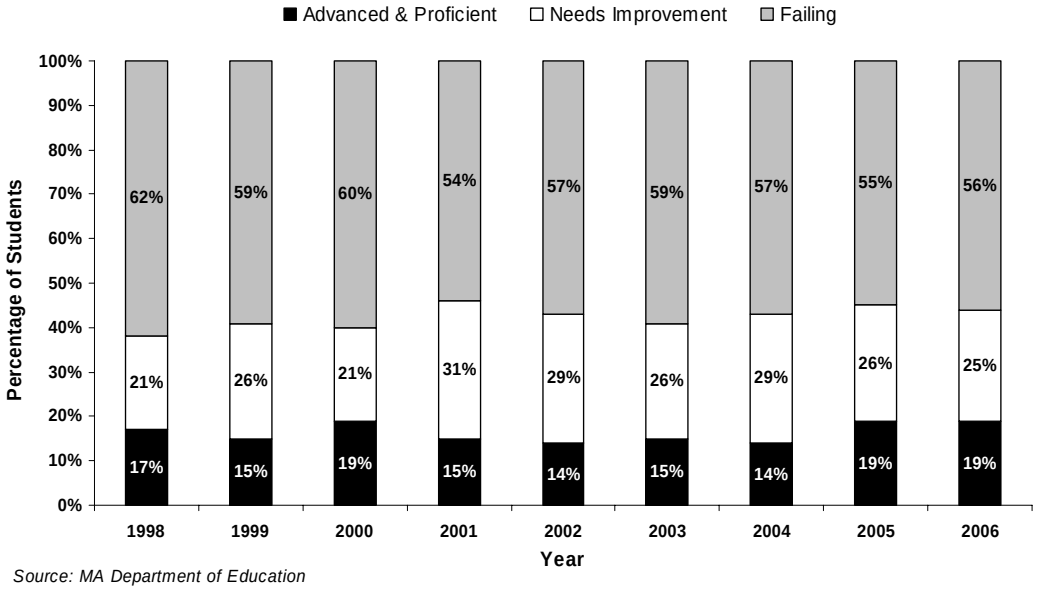



**ELA test was administered in the 7th grade in some years*

*Source: MA Department of Education*

As shown in **Figure 12,** in 2006, more than half (56%) of WPS eighth grade students failed the math portion of the MCAS test, and fewer than one in five (19%) scored in the proficient or advanced category. From 1998 to 2006, the proportion of grade eight students scoring advanced or proficient increased by only two percentage points, from 17% to 19%.

**Figure 12: WPS 8th Grade Math MCAS Scores, 1998-2006**

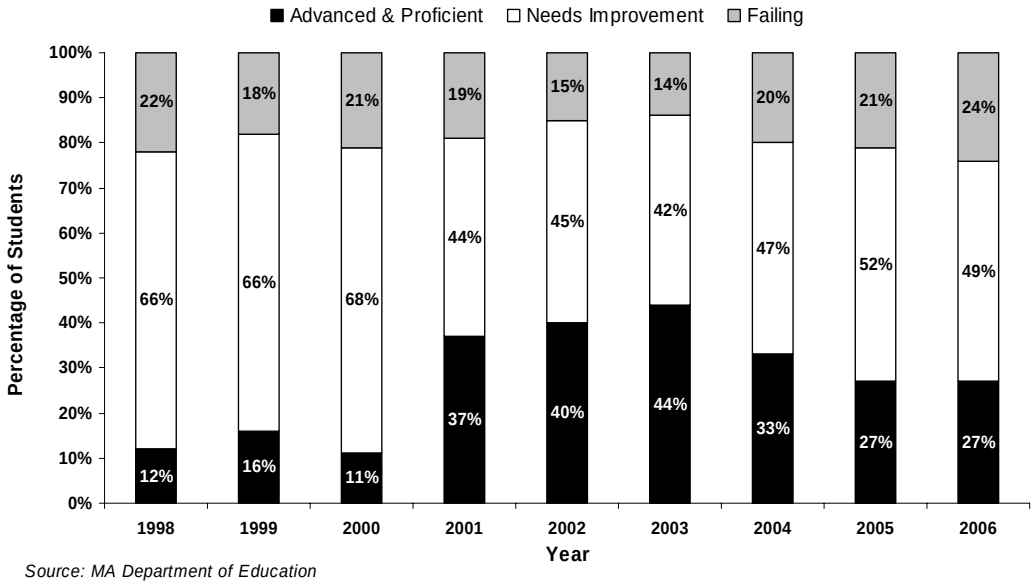



*Source: MA Department of Education*

### *Grade 4 Scores*

From 1998 to 2003, WPS fourth graders made significant gains on the ELA portion of the MCAS test, with the proportion scoring at the advanced or proficient levels increasing more than threefold, from 12% to 44%. However, as shown in **Figure 13,** these improvements have not been sustained in recent years; instead scores have worsened, and in 2006 only 27% of WPS fourth graders scored at or above proficiency on the ELA exam.

**Figure 13: WPS 4th Grade ELA MCAS Scores, 1998-2006**

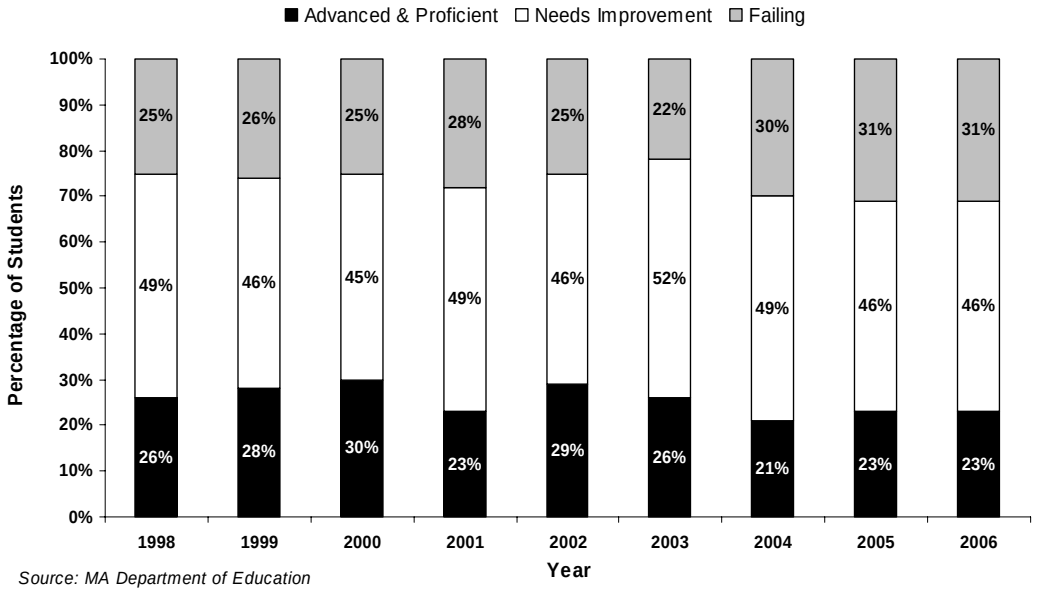



*Source: MA Department of Education*

The percentage of fourth graders scoring in the proficient or advanced categories in math reached a high of 29% in 2002, and has since declined to 23% (see **Figure 14**). Over the same period, the proportion of students failing increased from 25% to 31%.

While these scores reflect the district as a whole, there are some individual schools that are doing well. For example, in 2006, students at McGrath, Clark Street Community, Lake View, Flagg Street, and Burncoat Street elementary schools scored at or above the state wide averages on both grade 4 ELA and math tests. (**Appendix B** shows the proportion of students in each of the Worcester schools scoring at or above proficiency on the 2006 ELA and math MCAS exams.)

**Figure 14: WPS 4th Grade Math MCAS Scores. 1998-2006**




*Source: MA Department of Education*

Other indicators in determining whether schools have made AYP, such as the dropout rate and attendance rate, have improved. The WPS high school dropout rate has decreased from 8.5% to 5.5% since FY94.[18] Attendance rates have increased as well.[19] In 2006, the Massachusetts Department of Education added graduation rates to the measures of adequate yearly progress. The state requires a 55% graduation rate for a district to make AYP. Worcester's rate in 2006 was 67%. However, even with improved dropout rates and attendance rates, and improved 10th-grade scores, as noted earlier, in 2006, 29 of the 43 Worcester schools (67%) enrolling more than three quarters of the district's students were identified for improvement, corrective action, or restructuring in either math, ELA, or both, either in the aggregate or for subgroup performance (see **Table 2**). All four of Worcester's middle schools (Burncoat, Forest Grove, Sullivan, and Worcester East Middle) were identified for restructuring status in 2006.

[18] www.doe.mass.edu/infoservices/reports/dropout *Dropout Rates in Massachusetts Public Schools* (January 2007).
[19] See "Benchmarking Public Education in Worcester: 2007," at www.wrrb.org, March 2007.

**Table 2: Summary of WPS School Accountability Status, 2006**

| | Schools Identified for ELA Only | | Schools Identified for Math Only | | Schools Identified for Both ELA & Math | |
|---|---|---|---|---|---|---|
| (Total Schools=43) | # | % | # | % | # | % |
| Identified for Improvement | 9 | 21 | 5 | 12 | 6 | 14 |
| Corrective Action | 7 | 16 | 3 | 7 | 2 | 5 |
| Restructuring | 2 | 5 | 4 | 9 | 2 | 5 |
| *Subtotal (Accountability Status)* | 18 | 42 | 12 | 28 | 10 | 23 |
| No Status | 1 | 2 | 7 | 16 | 14 | 33 |

*Prepared By: The Research Bureau*
*Data Source: Massachusetts Department of Education*

Of the schools identified for improvement in 2006, seven were newly identified: Belmont Street Community, Columbus Park, Elm Park Community, Grafton Street, Nelson Place, Rice Square, and Tatnuck. Only one WPS school-- Francis McGrath Elementary—that was identified for improvement in 2005 was removed from the 2006 list of schools in need of improvement after making adequate yearly progress for two consecutive years (2005 and 2006).

The district as a whole was identified for improvement for subgroup performance in ELA and for corrective action for subgroup performance in math.

### *Interim Assessments*

One way in which the WPS is trying to address issues of student performance is to implement a program of interim assessments and use those results to inform curriculum, instruction, and individual interventions. In the fall of 2005, the WPS adopted the Measures of Academic Progress (MAP), an interim formative assessment program administered three times a year in reading, language arts and math for students in grades two through ten. This diagnostic tool was developed by the Northwest Evaluation Association and the online tests are administered to more than one million students nationwide annually. The assessments, which are aligned to the Massachusetts Curriculum Frameworks, measure individual student's growth in reading, language usage, and mathematics. The testing system determines the difficulty level at which a student can successfully perform and collects enough information to identify a student's strengths and weaknesses relative to the Massachusetts curriculum standards. The goal is a more precise and timely identification of a student's abilities so that targeted remedial help (i.e., additional instruction during the day, after school, and in the summer) can be provided to students who need it. The final score which is provided the day following the administration of the test is an estimate of the student's optimal instructional level. This information is used by teachers to determine how to format their lesson plans and where they may need to differentiate instruction so that all students are learning at an appropriate level.

When MAP is administered at regular intervals over time, it is possible to determine whether an individual student or an entire class or grade level is making progress in basic skills. In addition to identifying a student's current *instructional level*, the test also produces a *target growth score* for each student. Such scores are based on the typical growth of students at the same grade level

with the same starting score. Both students and parents are involved in understanding what is expected of the student to reach his target and beyond. According to the WPS Superintendent, MAP provides teachers with the tools to individualize each student's academic program.

According to the WPS, the desired growth target for each grade was that 50% or more of the students would meet or exceed their individual growth targets. Student growth is measured by comparing scores over time; currently the WPS is testing students at the beginning, middle, and the end of the school year. Student data for the fall 2005 to fall 2006 period show that in math, students in grades 4, 5, 6, and 10 met the 50% benchmark while students in grades 7, 8, 9 did not do so. In reading, less than 50% of students in grades 6, 7, 8, 9, and 10 met their growth targets; only at grades 4 and 5 were growth targets met by 50% or more of the students tested.

# PART II: HIGHER PERFORMING URBAN SCHOOLS

While there is no doubt of the difficulties involved in educating children with the demographic characteristics of those in Worcester and other urban districts, there are some schools in Worcester and elsewhere in the Commonwealth that have demonstrated a capacity over time to educate such students to the proficient level (students demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems) as defined by MCAS and prepare them for success in post-secondary education and beyond. The recently-released study, *Gaining Traction: Urban Educators' Perspectives on the Critical Factors Influencing Student Achievement in High and Low Performing Urban Public Schools,* prepared by the Educational Quality and Accountability Board (EQA) and the UMass Donahue Institute, discusses thirty higher performing schools in ten Massachusetts urban school districts, including two in Worcester (May Street School and North High School).

The Research Bureau made site visits to six schools with demographics similar to Worcester's. These schools share a number of traits in common with the higher performing schools described in the April 2007 *Gaining Traction* report. Among them are a principal who serves as an instructional leader and has control over the school's budget and hiring and firing of staff, a school culture that sets high expectations for all students, extensive class time dedicated to English and math, maximization of learning time, continuous professional development accompanied by teacher planning time and collaboration. Part II of this report describes how these schools incorporate these elements and others which have contributed to their higher academic performance.

The schools selected for this study included three Charter Schools, one pilot school, and two in-district schools: University Park Campus School (Worcester, grades 7-12), Roxbury Preparatory Charter School (Boston, grades 5-7), Another Course to College (Boston Pilot, grades 9-12), Media and Technology Charter School (Boston, grades 9-12), KIPP Academy (Lynn, grades 5-7), and Glenwood Elementary (Springfield, grades K-5). Roxbury Prep, Media and Technology Charter School (MATCH), and KIPP Academy are charter schools. (See **Appendix C** for a brief description of each school; **Appendix D** shows the characteristics of these schools including school size, demographics, number of teachers, and grade span.)

Charter schools are public schools granted authority to operate by the State Board of Education; they are designed to create choices for parents and students within the public school system. The charter is a performance contract that specifies the school's mission, program, goals, number of students to be served, methods of assessment, and ways to measure success; the charter enables the schools to operate independently of local school boards and districts but each must have a board of directors to whom the principal is held accountable.[20] He has authority over the hiring and firing of all personnel and the school's budget. Their funding is based on the per-pupil expenditure of the district in which they are located.

[20] http://www.uscharterschools.org/pub/uscs_docs/o/index.htm (March 2007).

After granting the initial charter, the Board of Education may renew the charter every five years following regular reviews of the school's progress. If the school is not living up to the terms of its charter and/or has not been successful academically, the Massachusetts Board of Education may decide not to continue the charter. To date, four charters have not been renewed.[21]

Another Course for College (ACC) is a pilot school; pilot schools operate within the public school district under the jurisdiction of the local school committee but have authority over their own operation, personnel, and budget comparable to that of charter schools.

Teacher salaries in the charter and pilot schools visited were comparable to teacher salaries in their respective districts, although administrators noted that many of the teachers in the schools visited work longer school days and are available for homework help by phone in the evening. Entrance into charter and pilot schools is determined by lottery. Entering the lottery for schools like Roxbury Prep, MATCH, and KIPP, is an indication that parents are motivated to seek out an alternative form of education for their children.

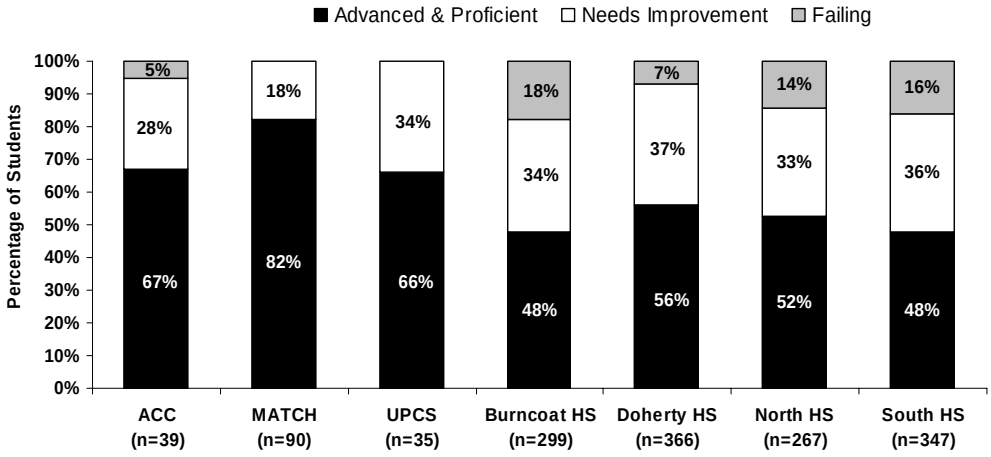
Glenwood Elementary is a public school that is part of the Springfield Public Schools District, and UPCS is a public school within the Worcester Public Schools District. The decision to include charter and pilot schools in our study was to determine whether the factors that contribute to their success are available to the regular district schools, and if so, how they could be implemented.

[21] See http://www.doe.mass.edu/charter/acct.html for a detailed outline and discussion of charter school accountability measures.

## MCAS Results

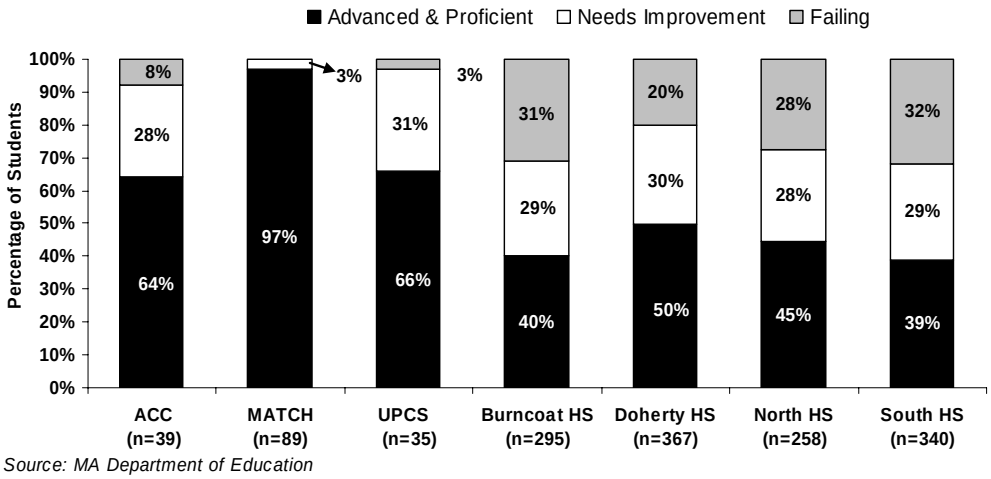
Students at the schools visited have a history of performing well on MCAS. **Figure 15** compares 2006 ELA MCAS scores for 10th graders at UPCS, MATCH, ACC, and Worcester's four comprehensive high schools. At UPCS, 65% of 10th-graders scored proficient or above and no students failed. No students failed at the MATCH school either, and 82% scored proficient or above. All three schools scored well in comparison to the 10th grade ELA state average, and all schools scored much better than the high schools in Worcester. The results on 10th grade math MCAS were similar: MATCH students scored the best, with 97% scoring proficient or above. 66% of UPCS and 64% of ACC students scored proficient. No students at MATCH failed the math MCAS, and only 3% at UPCS failed. The failure rate in Worcester's high schools was 27% overall.

**Figure 15: Grade 10 ELA MCAS Comparison, Spring 2006**




*Source: MA Department of Education*

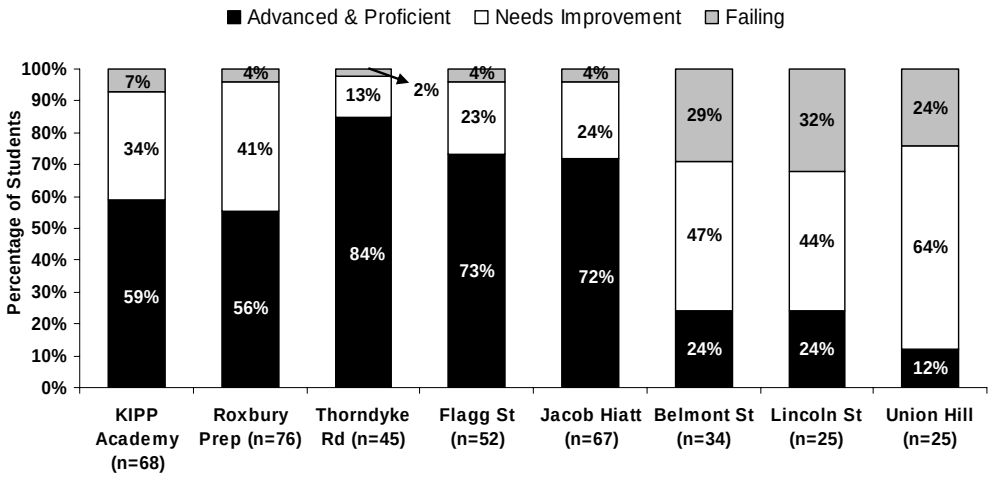
**Figure 16: Grade 10 Math MCAS Comparison, Spring 2006**




*Source: MA Department of Education*

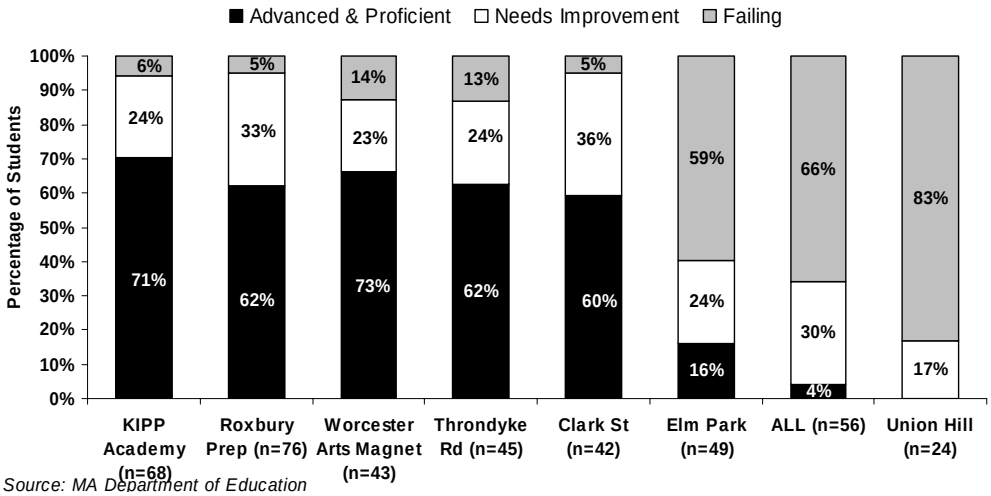
On the ELA portion of the MCAS, 59% of KIPP 6th graders scored at the proficient level or above. At Roxbury Prep, 56% of students scored proficient or above, compared with 43% of WPS 6th graders. The WPS had a much larger percentage of students failing, at 17%.[22] On the math portion of the 6th -grade MCAS, 71% of KIPP students scored at the proficient level or above, similar to the highest performing schools in the Worcester Public Schools District. (**Figures 17** through **20** show Worcester's highest and lowest performing schools compared to the schools visited for this study.) At Roxbury Prep, 62% of students scored at the proficient level or above.

**Figure 17: Grade 6 ELA MCAS Comparison, Spring 2006**




*Source: MA Department of Education*

**Figure 18: Grade 6 Math MCAS Comparison, Spring 2006**



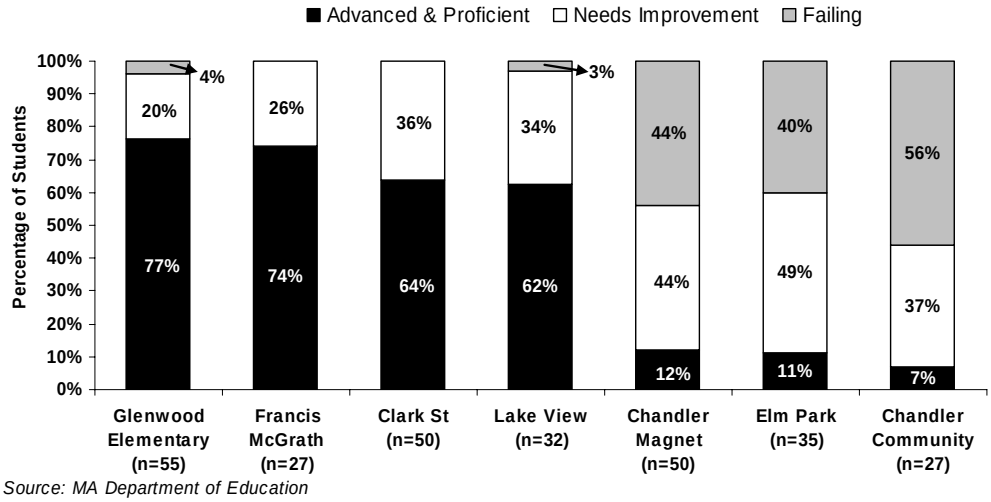

*Source: MA Department of Education*

On the ELA portion of the 4th grade MCAS, 77% of Glenwood students scored proficient or above, compared to McGrath School, Worcester's best-performing school where 74% scored proficient or above**.** Only 4% of Glenwood students failed compared with 24% of WPS students

[22] Although, as Figure 17 indicates, the highest performing schools in the district outperformed KIPP Academy and Roxbury Prep.

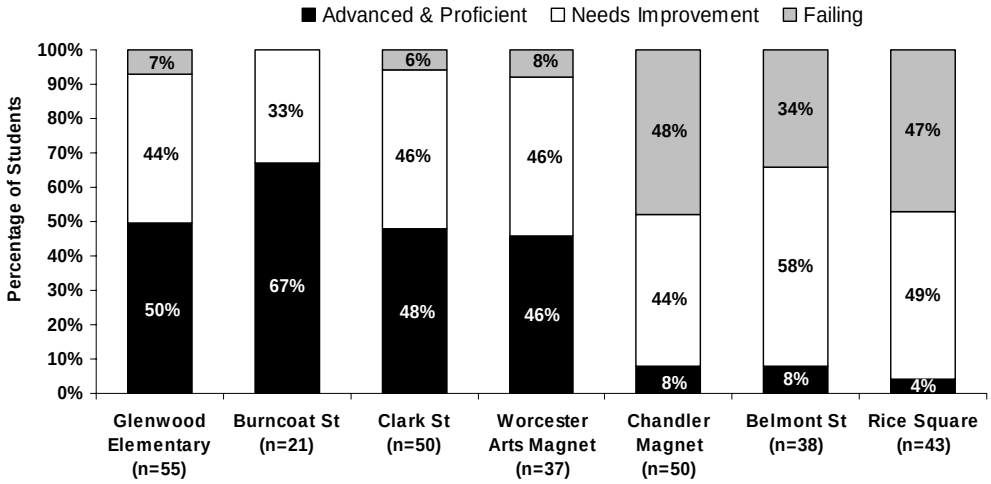
and 12% of MA students as a whole. On the 4th grade math MCAS, 50% of Glenwood students scored proficient or above compared to 67% in Burncoat Prep, Worcester's highest scoring elementary school.

**Figure 19: Grade 4 ELA MCAS Comparison, Spring 2006**




*Source: MA Department of Education*

**Figure 20: Grade 4 Math MCAS Comparison, Spring 2006**




*Source: MA Department of Education*

The high student performance in these schools is not the result of selective admissions, since all students at charter schools are admitted by lottery. At ACC, 85% of entering freshmen had either failed or scored in need of improvement on 8th-grade MCAS. Students at UPCS enter an average of three years behind grade level in reading and math. At Roxbury Prep, only 19% of the Class of 2006 scored advanced or proficient on the 4th-grade MCAS, but 94% scored advanced or proficient in the 8th grade. These schools have not only raised students' performance to grade level, they have typically educated the students to proficiency or above.

## Funding

The schools contacted for this study have raised funds in addition to their per pupil funding from the Commonwealth, partly because they have had to lease and/or finance their own facilities. They have also established relationships with colleges and community organizations leading to in-kind sources of revenue. Half of MATCH's MatchCorps program is funded by an AmeriCorps grant. Dinners that MATCH provides for students in the evening have been donated by nearby restaurants. Roxbury Prep students are provided lunch by the senior center which shares its building with the school. UPCS benefits financially from its relationship with Clark University in the form of grants, Clark student-tutors, and tuition-free classes for UPCS's students at Clark University, and professional development guidance from Clark professors.

## Elements of Success

What are the elements that seem to have contributed to the success of these schools? The MA Board of Education has approved regulations which require underperforming schools—schools that have failed AYP repeatedly—to incorporate ten elements in their school improvement plans that must be approved by the State Board of Education.[23] These elements were established by the Department of Education and gleaned from research, state fact-finding reviews, and information gathered through panel reviews of higher achieving schools. Most of these elements were found in the schools discussed in the Donahue Institute's recent report, *Gaining Traction.* All of the schools visited by The Research Bureau were asked whether they have these elements in place; they were also asked what factors they believe contributed to their success.

### *1) The school's principal has authority to select and assign staff to positions in the school without regard to seniority.*

Principals at ACC, Roxbury Prep, MATCH, and KIPP Academy have far more flexibility and authority when hiring or firing teachers than WPS principals do. At MATCH and Roxbury Prep, teachers sign a one-year contract and must be evaluated for rehire annually. Principals can hire new teachers on the basis of qualifications, without factoring in experience or seniority. KIPP Academy teachers do not sign a contract and the principal can fire a teacher any time during the year. A Roxbury Prep administrator remarks: "In order for school leaders to make real changes, they are going to need the power and authority to hire (and if necessary fire) their own teachers…Roxbury Prep's success can be traced directly to its teachers." The Glenwood Elementary principal can hire in- district applicants without regard to seniority. Because UPCS is a Worcester public school, its teachers and administrators must follow union contract regulations related to hiring and transferring. However, open positions at UPCS often require dual certification (licenses in two different fields such as English and Spanish) or different working hours, which limit the pool of applicants. Those who are not interested in working longer hours or who do not have special qualifications will not apply. The need for this kind of flexibility in hiring was confirmed in the interviews with school leaders conducted by the UMass Donahue Institute staff for its report, *Gaining Traction.* Principals are concerned about their lack of

[23] 603 CMR 2.03 Subsection 8e.

authority to make key hiring decisions, frequently due to contractual rules and their very limited ability to dismiss tenured staff who are not working effectively.

***2) The school's principal has control over financial resources necessary to implement the school's improvement plan.***

Because Roxbury Prep, ACC, MATCH, and KIPP are charter or pilot schools, the principals have authority over their budgets and can allocate funding according to their own priorities. Roxbury Prep, MATCH, and KIPP have used funds to implement student incentive programs to encourage good behavior and class participation. KIPP Academy rewards its students with field trips throughout the year. KIPP Academy estimates that it spends $1,200-$1,400 per student for field trips and other incentives. Because Roxbury Prep has authority over spending, it can use funds to give students school supplies or to support school trips. At MATCH Charter School, $30 is deposited quarterly in student accounts; students lose dollars when they receive demerits for bad behavior. At the end of the year, students can redeem all the money left in their account.

***3) The school implements curricula that are aligned to state frameworks in core academic subjects.***

All of the schools visited have aligned their curriculum to the state frameworks as has the WPS district. Staff at the higher performing schools interviewed for the *Gaining Traction* report described the "emphasis placed on knowledge of the State curriculum frameworks as central to instructional efficiency."[24] Knowing the frameworks well is essential for teachers in the WPS when diagnosing a student's strengths and weaknesses through the MAP assessment program described earlier.

***4) The school implements systematically a program of interim assessments (4-6 times per year) in English language arts and mathematics that are aligned to school curriculum and state frameworks.***

All of the schools visited had interim assessments throughout the year to test student performance. Glenwood Elementary administers Diagnostic Reading Assessments (DRA) to 1st and 2nd grade students. DRA tests student reading ability; if the student does not achieve a certain level, the student must repeat a grade (although students never repeat more than one grade at Glenwood). Teachers at ACC design their own assessments, which are reviewed regularly. As noted earlier in this report, the WPS are using the MAP tests as an interim assessment three times a year and adjusting each student's instruction to the level of his performance on the tests. The WPS also administers DRA tests to students in grades K-3.

***5) The school has a system to provide detailed tracking and analysis of assessment results and uses those results to inform curriculum, instruction, and individual interventions.***

All of the schools visited tracked student performance and applied this information to curriculum development and instruction. Teachers in the WPS are tracking student progress through MAP

[24] *Gaining Traction,* p.21

data and utilizing the results in developing instructional strategies for each student. ACC teachers share their assessments and results with other teachers in their subject area on a regular basis. Staff in higher performing schools interviewed for the *Gaining Traction* report more frequently described the centrality of student assessment to their instructional planning and delivery than their counterparts in lower performing schools. They find that assessments that return quick results (like MAP) are far more valuable than MCAS to ongoing instructional strategy.

***6) The school schedule for student learning provides adequate time on a daily and weekly basis for the delivery of instruction and provision of individualized support as needed in English language arts and math, which for students not yet proficient is presumed to be at least 90 minutes per day in each subject.***

The importance of math and English in all the schools visited was reflected in the school schedule and curriculum. At MATCH, freshmen and sophomores have daily sessions of math and English (56 minutes each) in addition to daily math and English tutoring sessions (56 minutes each). Freshmen take a total of five English classes daily: fiction, nonfiction, Read Aloud, Silent Reading, and a tutoring session. MATCH students are required to take proficiency exams at the end of each year to pass the grade; freshmen must pass writing and math exams, and sophomores, juniors, and seniors must pass a writing exam. Roxbury Prep students take two 50-minute English and math courses daily—a math problem-solving course, a math procedures course, and English and reading courses. At ACC, teachers enhance student writing ability through three rigorous writing classes: English, History, and Analytical Writing. The teachers coordinate assignments in order to cultivate student writing skills. Glenwood Elementary students take two and a half hours of ELA per day and one and a half hours of math. UPCS 7$^{th}$ graders take 90 minutes of English and one hour of math daily; 10$^{th}$ graders have 90 minutes of math and 90 minutes of English. Students at UPCS also engage in "low stakes writing" activities that encourage students to write as much as possible without being graded on content. At KIPP Academy, students spend two hours per day on both math and English.

***7) The school provides daily after-school tutoring and homework help for students who need supplemental instruction and focused work on skill development.***

Roxbury Prep, MATCH, and KIPP Academy all have longer school days that allow for more learning time. At Roxbury Prep, students attend classes from 7:45 am to 4:15pm. Students can attend a Homework Center from 4:15pm to 6pm or after-school clubs from 4:15pm to 5:30pm. Students attend class from 8:30am to 5pm at MATCH, and some students stay after school until as late as 7:30pm. ACC students attend school from 8am to 2:30pm although freshmen are required to stay an additional hour until 3:30pm. After-school study is available to ACC students from 3:30pm to 5:00pm. KIPP students attend school for nine and a half hours, from 7:30am to 5pm. One 40-minute period is dedicated solely to tutoring. Teachers at Glenwood Elementary work seven-hour school days, from 8:30am to 3:30pm; students arrive at 8:50am and attend school six hours and forty minutes. Tutoring is available before school (7:45am-8:30am) for struggling students in grades 3-5. There is currently one Worcester school that has a longer day. (The WPS had ten schools operating on extended-day schedules until budget cuts four years ago

resulted in the elimination of these programs.) The district has applied for funding for two other schools to have longer school days in the fall of 2007.

In addition to longer school days, some of the schools visited have summer sessions for their students. Entering students at MATCH and UPCS are required to attend summer classes prior to starting the standard school year: UPCS students attend a "Transition Academy" and MIT provides tutoring for entering MATCH students. All KIPP students attend a three-week summer session, with six hours of school per day.

The MATCH school also benefits from a tutoring resource: its MatchCorps program. Through MatchCorps, the school houses 48 tutors on its third floor, who tutor students during the school day. Each MATCH student receives a minimum of two hours of tutoring daily. Tutors work 60-hour weeks, receive a $600 stipend per month, and pay no housing expenses. MATCH tutors are college graduates with a variety of majors including math, political science, literature, engineering, and history. Some of these college students and graduates become teachers or attend graduate schools of education (24%), some stay at MATCH as teachers or staff (20%), and others go into public policy work (20%). Half of MATCH's MatchCorps program is funded by an AmeriCorps grant.

Educators at the schools interviewed for the *Gaining Traction* report also talked about the need for an increased focus on remediation of basic literacy and math skills through after-school, Saturday or summer-school programs. Higher performing schools more frequently found the resources to support such programs through grants or collaborative arrangements with other organizations.

Administrators at all of the schools visited stressed the importance of maximizing learning time. Every day upon entering the classroom, Roxbury Prep and MATCH students are given a "Do Now" assignment which they must complete immediately. This exercise focuses student attention immediately on the subject. After-school tutoring programs in the WPS have been reduced or eliminated in recent years due to budget constraints.

***8) The school has at least two full-time subject area coaches, one each for English language arts/reading and for mathematics, who are responsible for providing faculty at the school with consistent classroom observation and feedback.***

KIPP Academy and Glenwood Elementary have subject area coaches; the KIPP administrator stressed the importance of frequent classroom observation and feedback. MATCH and ACC do not have full-time subject area coaches; however, two ACC teachers were previously coaches. School leaders interviewed for the *Gaining Traction* report indicated that coaches were among their most important hires, and played a prominent leadership role in the higher performing schools. Coaches' roles vary across (and sometimes within) districts; they commonly lead or assist the principal with the implementation of curriculum; collection, analysis, and interpretation of student assessment data to guide instruction; coaching and mentoring of teachers; and

monitoring of classroom practices and instruction. WPS have had to eliminate most coaches due to budget constraints in recent years.

***9) School administrators periodically evaluate faculty, including evaluation of applicable content knowledge and annual evaluation of overall performance tied in part to solid growth in student learning and commitment to the school's culture, educational model, and improvement strategy.***

Administrators at the schools visited evaluate their faculty frequently and thoroughly. Because of administrator authority over hiring and firing at the charter and pilot schools, teachers must take administrator recommendations and evaluations seriously. Since administrators do not have to factor in seniority or education credits when deciding to keep a teacher from year-to-year, teacher evaluation is based solely on teaching quality and student performance. A KIPP Academy administrator recommended that teachers be observed at least fifteen times per year.

In determining teacher quality, administrators at the schools visited emphasized strong subject matter expertise, shared mission with the school, and work ethic. Both MATCH and Roxbury Prep administrators want candidates with prior teaching experience with urban or high poverty students. While tenured teachers at the WPS are evaluated every two years, and non-tenured teachers are evaluated every year and given recommendations for improvement, student performance is not one of the criteria on which they are judged.

***10) The weekly and annual work schedule for teachers provides adequate time for regular frequent, department and/or grade-level faculty meetings to discuss individual student progress, curriculum issues, instructional practice, and school-wide improvement efforts.***

While all Massachusetts schools dedicate time for professional development and faculty meetings, the schools visited carve out more time than what is common in many school districts. During the six-period days at ACC, for example, teachers have two periods free for classroom preparation. At KIPP, teachers spend three and a half hours on planning during the day. KIPP teachers spend two weeks (three weeks for new teachers) in August developing curriculum, equivalent to 80 hours of professional development. At Roxbury Prep, teachers engage in a 3-4 week session of curriculum development and preparation in August. The higher performing school staff interviewed for the *Gaining Traction* report use planning time for both instructional preparation and the development of collegial relationships. They focused on the collaborative nature of planning times since the school is a common enterprise in which all share responsibility.

## *School Culture*

One significant characteristic of the schools examined that is mentioned only in passing as part of the MA Board of Education's regulations, is establishing "the right school culture:" a set of core beliefs and expectations that are internalized to the point that they guide the actions and reactions of both staff and students alike. The school culture is a known sense of "how we operate" and "what we stand for." School culture can create a positive group affiliation that helps

both students and staff to accept and embrace specific attitudes, goals, and behaviors that support student success. This can be particularly helpful to those students coming from backgrounds where academic success may not be expected or its importance not clearly communicated. [25]

A school culture generally includes setting high standards for all students. The MATCH school motto is "No Excuses:" no matter what the background of the student, all students are expected to pass exams and classes. The slogan "Work hard. Be nice" is posted on KIPP Academy walls. In some schools, the school culture includes enforcing a strict code of conduct, both inside the classroom and in the hallways. Students may be required to remain silent when moving between classes, and to line up before entering or leaving class. Both Roxbury and MATCH school administrators agree that focusing on nominal infractions prevents them from having to deal with more dangerous violations. At UPCS, administrators and teachers enforce the district's code of conduct and call parents for behavioral problems. Instead of instituting a strict code of conduct, ACC uses incentives differently; students are allowed more freedom (such as 45 minute lunch periods off campus for $10^{th}$-$12^{th}$ grade students) in return for more responsibility. Students learn that following the rules results in more rewards and freedom.

Sometimes the school culture includes uniforms. Roxbury Prep students wear two uniforms: a khaki pants and shirt combination in the morning and Roxbury Prep sweatshirts and sweatpants in the afternoon. KIPP students must wear either a KIPP shirt or sweatshirt. For the higher performing schools, staff interviewed for the *Gaining Traction* study report that school culture may be second only to school leadership in improving student performance. Implementing and clearly communicating high standards for student achievement and student conduct, and holding students accountable for their performance and behavior were noted as prerequisites for success by the higher performing schools.

### *Implementing Change in the WPS*

The WPS has implemented some of these elements, including aligning curricula to state frameworks, implementing a program of interim assessments, teaching and analyzing results of interim assessments to inform curricula and instruction for each student, and increasing learning time for ELA and math. It has had to reduce the amount of tutoring and the number of ELA and math coaches during the last few years because of budget constraints. However, several elements, notably the principal's authority to select and assign staff to positions without regard to seniority, have not been implemented.

Despite the increases in compensation discussed earlier in this report, there has been little change in the process by which most teachers are hired, transferred or removed. Transfer requests are determined by educational preparation, quality of performance as determined by a principal's evaluations, and length of service as a professional educator within the WPS. In other words, the principal has authority over one-third of the process, the performance evaluation, although that evaluation may have been done by a principal other than the one who has the vacancy. If a

[25] *Gaining Traction,* pp. 11-17.

teacher resigns or retires creating a vacancy in a teaching position, the position must first be posted internally within the WPS district on a "bid list" before it is open to external applicants. The principal can consider an external candidate only if the internal ones do not have the qualifications required for the position or the "bid list" has been completed. The district currently has two bid lists: April 15th and June 1st. Therefore, external hiring sometimes does not begin until early summer when many candidates may have already accepted positions.

In recent years, when the WPS closed schools and cut positions, displaced teachers bid for positions elsewhere in the district. This means there have been fewer positions open on the bid list and more displaced teachers vying for these positions. Thus, the contract procedures limit principals' ability to hire teachers who share their vision, commitment, or expectations, as well as limiting the opportunity to expand the talent pool of teachers from outside the district.

The current contract modifies the transfer process for schools declared "underperforming" by the Massachusetts Department of Education. These schools are required to develop a corrective plan to bring the school out of underperforming status. While the plan, which has a one-year duration only, cannot waive the contract's grievance procedure, leaves of absence, sick leave, reduction in force, dismissal of teachers, or salary grid, it may alter the transfer policy, if required by the plan, which must be approved by the EAW, the School Committee, and two-thirds of that school's teachers.

To implement changes in the transfer policy and other changes that might improve the chances of turning around underperforming schools will require collaboration and agreement among the WPS administration, the Worcester School Committee, and the EAW, the local collective bargaining unit.

# PART III: OBSERVATIONS AND RECOMMENDATIONS

***The School Committee and the Educational Association of Worcester (EAW) should amend the contract to enable school principals to select and assign staff to positions in a school based on teacher qualifications and performance, without regard to seniority.***
As previously noted, in a recent report by the US Chamber of Commerce grading the school systems in each of the 50 states, Massachusetts earned "A" ratings (the highest grade) for academic achievement, truth in advertising about student proficiency, rigor of standards, postsecondary and workforce readiness, and 21st Century Teaching Force.[26] However, Massachusetts received a C grade for not giving schools and principals enough freedom and flexibility to hire teachers and manage the school's budget.

Administrators at the schools visited for this study emphasized the importance of having the authority to select the most qualified teachers compatible with the mission of the school. The WPS could also benefit from increasing the frequency of teacher evaluations, and including student performance as part of the evaluation. Currently tenured teachers are evaluated every two years and untenured teachers are evaluated once a year. Evaluations include two formal visits to the classroom, and the teacher is notified beforehand of the week in which he or she will be evaluated.

Some Massachusetts districts allow principals more flexibility over hiring and transfers than what is allowed in the WPS. Springfield's latest contract eliminates school assignment by seniority, and allows the superintendent the right to assign teachers, regardless of seniority.[27] Any reduction-in-force in the Springfield Public Schools will be determined by a teacher's qualifications and abilities, not by seniority. As part of the Boston Public School (BPS) contract, administrators have the option of advertising open positions outside the district, if they attach a $1,200 stipend to the position. This allows them to seek out the most qualified teacher rather than having to accept the most senior one.

The WPS contract should give principals more flexibility and freedom over the hiring and transfer process. The current contract leaves some flexibility for underperforming schools only: the professional staff at the school may request a waiver of certain articles of the contract, so long as the EAW, the School Committee, and two-thirds of the EAW members in the underperforming building agree to these changes.[28] But as Apple CEO Steve Jobs commented at a recent education conference: "What kind of person could you get to run a small business if you told them, when they came in, they couldn't get rid of people they thought weren't any good in

[26] US Chamber of Commerce. *Leaders and Laggards: A State-by State Report Card on Educational Effectiveness,* http://www.uschamber.com (March 2007).
[27] Maria Sacchetti, "Springfield Teachers OK Merit Pay Contract," *The Boston Globe*, Sept 9, 2006, p. B1.
[28] "Agreement between the Worcester School Committee and the Educational Association of Worcester," Article XXXIV, June 2006, p. 51.

the first place? Or they couldn't pay people three times as much when they got three times as much work done?"[29]

***The School Committee and the EAW should amend the contract to allow all schools, particularly underperforming schools, the option of converting to pilot schools.*** It is clear from The Research Bureau site visits and the school staff interviewed for the *Gaining Traction* report that improving academic performance is a function primarily of what happens at each individual school. In any district with similar demographics across the district, there are higher- and lower-performing schools. The factors that contribute to those differences include the school leadership, the roles and responsibilities assigned to school staff, the school culture, and the relationships among staff and with community organizations that may have access to resources for some school programs. The pilot school model seems to give schools both greater authority for school governance and greater responsibility for student performance. According to the Boston Public Schools contract, all schools have the option of converting to a pilot school if two-thirds of the teachers vote for the conversion. Once a school has converted to a pilot school, the principal can hire teachers of his choosing and control his own budget, which is based on per pupil allocation. The pilot school is free to establish its own working conditions. For example, each pilot school establishes its own grievance procedure. It has its own governing Board of Directors of which one-quarter are teachers at the school. The Board oversees operations and evaluates the principal. (The BPS superintendent has final authority over hiring and firing the principal.) A pilot school can also extend the school day and year, the class schedule, the length of the periods, and determine professional development. Pilot schools have some flexibility in the salary schedule, but must remain within the general salary structure. While the student profile at the pilot schools is the same as the other schools in the district, Boston pilot school students generally perform better than regular district school students.[30]

***The WPS administration and School Committee should work with the EAW to re-establish an extended school day in as many schools as possible by applying for Extended Learning Time funds from the state. The WPS should consider implementing practices that maximize learning time, such as a "Do Now" policy.*** Most of the schools visited had extended school days, allowing for more learning time and more teacher collaboration time during the day. Schools like MATCH and KIPP offer programs on some Saturday mornings. In order to benefit from additional time, the schedule should reflect district priorities and maximize student learning time in English and math courses. Instituting time-saving practices and enforcing a strict code of conduct would enable teachers to spend more time teaching instead of disciplining students.

The state-funded Expanded Learning Time grant provides financial assistance to districts with schools that have lengthened their school days by 30%. In FY06, the WPS received $650,000 to lengthen the school day at Jacob Hiatt Magnet School by one hour and 50 minutes. The

[29] "Non-Union Jobs," *Wall Street Journal*, February 23, 2007, p. A10.
[30] See http://profiles.doe.mass.edu/mcas.aspx for additional detail on Boston pilot school performance.

Expanded Learning Time program was funded by the state at $1,300 per pupil for the year. The results of the extended day at Jacob Hiatt should be monitored closely. If funded by the Department of Education, in September 2007, two more WPS schools will implement a longer-day schedule.

***The WPS should adopt a policy that requires underperforming middle school students to attend summer school after 8th grade to better prepare them for high school, and ultimately, post-secondary education.*** Administrators at the schools visited emphasized the importance of motivating middle school students by getting them to start thinking about post-secondary education. As shown in Part I, WPS middle schools are struggling. All four middle schools have been identified for restructuring. On the math portion of the MCAS, 56% of 8th-grade students failed and only 19% scored proficient or above. Instituting summer school before entrance into high school might better prepare students for high school standards. Because the highest cost associated with summer school is teacher pay, the WPS could recruit local college students to provide tutoring for summer school instead of hiring teachers. MIT provides tutoring for MATCH students during the summer before they begin 9th grade.

***The WPS Administration should implement year-end proficiency tests that students must pass in order to advance to the next grade.*** Such tests may motivate students to work hard to advance to the next grade. In contrast to MCAS, results of a proficiency exam could be released immediately. Students already need to pass the 10th grade MCAS exam to graduate; passing a proficiency exam would provide a similar objective for students each year. In addition, teachers will not have to dedicate as much time to remediation at the beginning of the year.

***The WPS administration should use a multi-year budgeting process to plan for the continuation of grant-funded programs that are essential to academic improvement once those grants have expired.*** Because grant revenues comprise 16% of the district's total funding, those grants, such as funds for MCAS tutoring, are frequently an essential expenditure for improving student achievement. It is therefore critical that the WPS develop a plan upon receipt of grants for how these essential programs will be funded from the general operating budget once the grant expires. This kind of planning needs to be factored into contract negotiations. In other words, available revenue will have to be allocated for such additional staff, possibly leaving less for contractual pay raises.

***The WPS Administration should work with Colleges of the Worcester Consortium (COWC) to establish a well-organized tutoring network for struggling students in the WPS.*** Each college student interested in tutoring could be assigned one or more WPS students to tutor on a regular basis under the direction of the child's teacher throughout the academic year. Students could potentially volunteer or be hired to staff summer school programs as well. Since Worcester's college population is about 30,000 students, and many students have a desire and the ability to help students who are struggling academically, it may be possible for Worcester's colleges to have a significant impact on the performance of WPS students. If the colleges are able to recruit student volunteers or pay eligible students using Federal Work Study funds, the

cost to the district of establishing a tutoring corps would likely be minimal. Instituting such a program through the colleges could be viewed as an alternative to a PILOT (payment in lieu of taxes).

## Acknowledgments

The Research Bureau gratefully acknowledges the assistance of the leadership and staff at the following schools for sharing data, their perspectives, and their experiences: Another Course to College, Glenwood Elementary School, KIPP Academy, Media and Technology Charter School (MATCH), Roxbury Preparatory Charter School, and University Park Campus School. We would also like to express our appreciation to the administration of the Worcester Public Schools.

# Appendix A: History of WPS Teaching Positions, FY94-FY06

| Positions[1] | FY94 | FY95 | FY96 | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Elementary | 539 | 567 | 617 | 660 | 667 | 679 | 687 | 673 | 660 | 612 | 565 | 546 | 501 |
| English | 60 | 68 | 70 | 72 | 72 | 83 | 84 | 89 | 94 | 97 | 94 | 93 | 96 |
| Mathematics | 59 | 64 | 68 | 70 | 74 | 85 | 91 | 95 | 97 | 97 | 96 | 102 | 104 |
| Science | 56 | 62 | 65 | 69 | 72 | 80 | 84 | 88 | 91 | 92 | 90 | 89 | 90 |
| Social Studies | 50 | 55 | 60 | 62 | 75 | 83 | 93 | 87 | 91 | 97 | 94 | 94 | 94 |
| Foreign Language | 32 | 36 | 39 | 41 | 48 | 55 | 59 | 55 | 55 | 54 | 47 | 44 | 44 |
| Business | 18 | 18 | 20 | 20 | 18 | 17 | 16 | 16 | 16 | 16 | 16 | 15 | 13 |
| Art | 30 | 30 | 37 | 42 | 47 | 47 | 49 | 49 | 49 | 46 | 41 | 42 | 42 |
| Music | 26 | 28 | 37 | 42 | 49 | 49 | 51 | 52 | 53 | 52 | 47 | 45 | 45 |
| Home Economics | 20 | 22 | 23 | 23 | 24 | 23 | 23 | 23 | 21 | 21 | 14 | 10 | 8 |
| Physical Education | 37 | 37 | 42 | 47 | 53 | 56 | 56 | 56 | 54 | 52 | 47 | 48 | 46 |
| Reading | 20 | 20 | 20 | 21 | 22 | 24 | 25 | 24 | 29 | 28 | 24 | 23 | 23 |
| Industrial Arts | 25 | 25 | 26 | 26 | 26 | 25 | 26 | 27 | 27 | 27 | 23 | 22 | 20 |
| Health | 12 | 17 | 24 | 20 | 22 | 24 | 23 | 24 | 24 | 2 | 23 | 22 | 19 |
| Bilingual | 61 | 65 | 68 | 69 | 71 | 72 | 72 | 68 | 63 | 58 | 50 | 41 | 32 |
| ESL/SEI/NCC | 20 | 22 | 25 | 25 | 28 | 30 | 31 | 27 | 28 | 23 | 32 | 42 | 53 |
| Special Education | 330 | 359 | 361 | 329 | 336 | 348 | 356 | 358 | 401 | 406 | 404 | 398 | 408 |
| Guidance | 43 | 46 | 44 | 45 | 46 | 52 | 55 | 54 | 53 | 51 | 44 | 42 | 44 |
| Psychologists & Adjustment Counselors | 46 | 51 | 56 | 58 | 59 | 62 | 62 | 65 | 67 | 63 | 67 | 67 | 65 |
| Instructional Media | 13 | 14 | 14 | 14 | 15 | 17 | 17 | 18 | 18 | 16 | 15 | 10 | 10 |
| Agri/Horticulture | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 6 | 9 |
| PEAK | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 0 | 0 |
| MCAS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 5 |
| Facilitators (HS) | 0 | 4 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 6 | 6 | 6 |
| Literacy Sec. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| Vocational | 0 | 0 | 0 | 0 | 0 | 68 | 69 | 69 | 69 | 68 | 64 | 65 | 65 |
| **Teachers (total)** | **1,520** | **1,641** | **1,757** | **1,805** | **1,875** | **2,040** | **2,082** | **2,083** | **2,132** | **2,076** | **1,942** | **1,914** | **1,877** |
| **Non-Teaching Personnel** | **1,052** | **1,071** | **1,112** | **1,143** | **1,203** | **1,095** | **1,347** | **1,866** | **1,707** | **1,692** | **1,510** | **1,468** | **1,433** |
| **Total Personnel** | **2,572** | **2,712** | **2,869** | **2,948** | **3,078** | **3,135** | **3,429** | **3,949** | **3,839** | **3,768** | **3,452** | **3,381** | **3,309** |

[1]Levels reflect city-funded positions and do not icnlude grant-funded positions.

*Source: Worcester Public Schools 2006-2007 Budget*

# Appendix B: Worcester Public Schools & Public Charter Schools Demographic and Performance Overview

| School | 2005-06 | | Spring 2006 | | | | | | | 2005-2006 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Grades Offered | Student Enrollment | Students Proficient/Advanced in English MCAS (%) | NCLB Accountability Status* | Students Proficient/Advanced in Math MCAS (%) | NCLB Accountability Status* | Minority Student Population (%) | Low Income (%) | Limited English Proficiency (%) | Students Qualifying for Special Education Services (%) | % of Students Repeating a Grade | Attendance Rate (%) | Average number of days absent |
| Belmont Street Community | Pre-K - 6 | 386 | 21% | NI | 8% | NS | 77.0% | 92.0% | 22.3% | 17.9% | 5.8% | 94.5% | 9.1 |
| Burncoat Prep | K - 6 | 204 | 52% | NI | 67% | CA | 70.1% | 80.9% | 27.9% | 17.6% | 3.4% | 94.4% | 9.6 |
| Canterbury Street Magnet | Pre-K - 6 | 348 | 23% | NI | 9% | NI | 66.3% | 89.1% | 26.4% | 17.2% | 1.1% | 95.6% | 7.3 |
| Chandler Community | Pre-K - 6 | 344 | 7% | CA | 15% | R | 77.9% | 90.7% | 26.7% | 14.0% | 3.7% | 93.7% | 10.1 |
| Chandler Magnet | Pre-K - 6 | 385 | 12% | R | 8% | CA | 68.3% | 84.4% | 50.6% | 25.2% | 1.3% | 94.6% | 8.8 |
| City View | Pre-K - 6 | 430 | 17% | NI | 20% | CA | 59.8% | 82.1% | 20.2% | 20.9% | 5.4% | 94.5% | 9.1 |
| Clark Street Community | Pre-K - 6 | 307 | 64% | NS | 48% | NS | 50.5% | 58.3% | 15.0% | 21.5% | 3.7% | 95.2% | 8.4 |
| Columbus Park | Pre-K - 6 | 351 | 32% | NI | 40% | NS | 75.2% | 92.9% | 30.5% | 23.4% | 1.9% | 93.8% | 10.3 |
| Elm Park Community | Pre-K - 6 | 414 | 11% | NI | 14% | NI | 72.2% | 85.7% | 31.6% | 16.9% | 2.9% | 94.8% | 8.1 |
| Flagg Street | K - 6 | 436 | 54% | NS | 40% | NS | 36.0% | 17.4% | 4.6% | 8.7% | 1.6% | 96.7% | 5.9 |
| Gates Lane | Pre-K - 6 | 640 | 25% | NI | 32% | NS | 51.4% | 53.3% | 12.7% | 24.2% | 5.1% | 95.7% | 7.4 |
| Goddard School/Science Tech | Pre-K - 6 | 576 | 12% | NI | 14% | NI | 76.5% | 93.8% | 46.0% | 19.1% | 2.8% | 95.3% | 7.8 |
| Grafton Street | Pre-K - 6 | 356 | 33% | NI | 36% | NS | 65.2% | 81.5% | 16.6% | 13.8% | 2.6% | 95.6% | 7.4 |
| Harlow Street Magnet** | K - 6 | 196 | 17% | *na* | 17% | *na* | 65.8% | 92.3% | 16.8% | 13.3% | na | 94.5% | 8.9 |
| Heard Street | K - 6 | 207 | 39% | NS | 23% | NS | 42.0% | 52.2% | 12.6% | 14.0% | 2.9% | 96.9% | 5.3 |
| Jacob Hiatt Magnet | Pre-K - 6 | 449 | 57% | NI | 30% | NS | 67.3% | 60.1% | 17.4% | 13.4% | 3.9% | 96.6% | 5.9 |
| Lake View | K - 6 | 273 | 62% | NS | 45% | NS | 41.8% | 39.6% | 18.7% | 7.0% | 1.3% | 95.8% | 7.2 |
| Lincoln Street | Pre-K - 6 | 249 | 13% | R | 13% | NS | 74.6% | 88.8% | 29.7% | 13.3% | 2.9% | 94.7% | 8.8 |
| May Street | K - 6 | 244 | 39% | NS | 26% | NS | 41.4% | 40.6% | 14.3% | 8.2% | 0.5% | 96.5% | 5.9 |
| McGrath | K - 6 | 208 | 74% | NS | 40% | NS | 52.4% | 67.8% | 12.5% | 10.6% | 1.1% | 95.8% | 6.8 |
| Midland Street | K - 6 | 227 | 37% | NS | 37% | NS | 29.9% | 39.2% | 12.3% | 8.8% | 1.6% | 97.2% | 4.8 |
| Mill Swan** | K - 6 | 182 | 19% | *na* | 19% | *na* | 64.2% | 64.3% | 24.7% | 31.9% | na | 95.1% | 7.7 |
| Multiple Intelligences** | K - 6 | 204 | 21% | *na* | 21% | *na* | 53.5% | 69.1% | 19.6% | 19.1% | na | 95.5% | 7.5 |
| Nelson Place | K - 6 | 379 | 30% | NI | 15% | NS | 39.3% | 27.7% | 8.2% | 9.8% | 3.6% | 96.9% | 5.5 |
| New Ludlow** | K - 6 | 214 | 25% | *na* | 15% | *na* | 48.1% | 54.7% | 13.1% | 11.2% | na | 97.2% | 4.8 |
| Norrback Avenue | Pre-K - 6 | 626 | 13% | CA | 24% | NI | 48.0% | 53.2% | 24.3% | 16.0% | 0.6% | 95.4% | 7.7 |
| Quinsigamond | Pre-K - 6 | 708 | 23% | CA | 11% | NI | 56.2% | 76.0% | 20.5% | 16.7% | 1.6% | 94.9% | 8.6 |
| Rice Square | Pre-K - 6 | 388 | 14% | NI | 4% | NI | 44.3% | 59.3% | 16.2% | 13.9% | 2.3% | 95.3% | 7.7 |
| Roosevelt | Pre-K - 6 | 660 | 20% | CA | 17% | NI | 47.8% | 52.6% | 22.1% | 19.5% | 2.4% | 95.6% | 7.3 |
| Tatnuck Magnet | K - 6 | 393 | 14% | NI | 26% | NI | 40.0% | 35.4% | 8.9% | 13.2% | 0.9% | 96.7% | 5.7 |
| Thorndyke Road | Pre-K - 6 | 377 | 43% | NS | 44% | NS | 40.9% | 43.5% | 14.3% | 14.3% | 1.0% | 95.8% | 7.2 |
| Union Hill | K - 6 | 257 | 22% | NS | 15% | NS | 68.9% | 94.6% | 19.1% | 17.1% | 2.8% | 94.7% | 8.6 |
| Vernon Hill | K - 6 | 412 | 17% | CA | 17% | NI | 62.2% | 85.9% | 21.1% | 13.8% | 2.0% | 96.0% | 6.6 |
| Wawecus Road | K - 6 | 175 | 31% | NS | 21% | NS | 42.3% | 56.0% | 12.0% | 20.6% | 4.7% | 96.0% | 6.8 |
| West Tatnuck | Pre-K - 6 | 279 | 44% | NS | 37% | NS | 39.4% | 19.0% | 11.5% | 21.9% | 0.6% | 94.8% | 8.9 |
| Worcester Arts Magnet | Pre-K - 6 | 341 | 49% | NS | 46% | NS | 42.1% | 37.5% | 9.4% | 15.0% | 2.7% | 95.6% | 7.6 |
| Burncoat Middle | 7 - 8 | 665 | 50% | CA | 20% | R | 54.4% | 64.7% | 12.9% | 20.9% | 2.7% | 95.2% | 8.3 |
| Forest Grove Middle | 7 - 8 | 979 | 55% | NI | 28% | R | 43.6% | 49.1% | 4.6% | 18.6% | 2.4% | 95.5% | 7.7 |
| Sullivan Middle | 7 - 8 | 973 | 47% | CA | 14% | R | 61.2% | 71.2% | 11.5% | 23.7% | 3.1% | 94.1% | 10 |
| Worcester East Middle | 7 - 8 | 701 | 43% | R | 12% | R | 61.8% | 80.2% | 8.8% | 22.5% | 4.3% | 94.2% | 9.6 |
| Burncoat High | 9 - 12 | 1421 | 48% | CA | 40% | CA | 52.0% | 48.9% | 9.1% | 19.6% | 11.8% | 91.5% | 14 |
| Doherty High | 9 - 12 | 1578 | 56% | NI | 50% | NI | 45.6% | 36.4% | 5.7% | 13.9% | 3.2% | 91.6% | 14.1 |
| North High | 9 - 12 | 1239 | 52% | NS | 45% | NS | 59.9% | 64.5% | 5.0% | 21.1% | 9.3% | 91.0% | 14.9 |
| South High Community | 9 - 12 | 1572 | 48% | CA | 39% | CA | 63.0% | 64.4% | 14.1% | 20.2% | 7.4% | 90.3% | 15.5 |
| Worcester Vocational HS | 9 - 12 | 1063 | 27% | NS | 35% | NI | 45.4% | 61.5% | 2.0% | 15.1% | 4.6% | 93.4% | 11.6 |
| | | | | | | | | | | | | | |
| ALL School -- ES | | 438 | 17% | R | 11% | R | | | | | | | |
| ALL School -- MS | Pre-K - 12 | 135 | 48% | R | 27% | R | 73.8% | 83.5% | 20.6% | 19.3% | na | 94.8% | 8.6 |
| ALL School -- HS | | 201 | 66% | R | 54% | R | | | | | | | |
| University Park -- MS | | 82 | 69% | NS | 58% | NS | 66.5% | 70.0% | 1.3% | 5.2% | 0.9% | 95.4% | 8.1 |
| University Park -- HS | 7 - 12 | 148 | 66% | NS | 66% | NS | | | | | | | |
| | | | | | | | | | | | | | |
| Abby Kelley Foster RCS -- ES | | 965 | 41% | NS | 29% | NS | | | | | | | |
| Abby Kelley Foster RCS -- MS | | 125 | 68% | NS | 33% | NS | 51.1% | 48.0% | 1.3% | 9.4% | 1.8% | 95.5% | 7.9 |
| Abby Kelley Foster RCS -- HS | K - 12 | 85 | 64% | NS | 52% | NS | | | | | | | |
| Seven Hills CS -- ES | | 541 | 29% | CA | 22% | NI | 78.2% | 71.7% | 6.8% | 9.1% | 4.3% | 95.4% | 8 |
| Seven Hills CS -- MS | K - 8 | 120 | 78% | CA | 20% | NI | | | | | | | |

Source: MA Department of Education and Worcester Public Schools.

* NI = In Need of Improvement, CA = Corrective Action, R = Restructuring, NS = No Status

** Schools that were closed at the end of the 2005-06 school year

## Appendix C: Overview of Higher-Performing Urban Schools Visited

**Another Course to College** (ACC) is a college-preparatory pilot school that is part of the Boston Public Schools, serving 200 primarily low-income and minority students. ACC's academic goal is to prepare students to do college-level analytical writing through English, history and analytical writing classes. Students are given frequent five-to-ten page paper assignments. The program also includes law classes, internships in the state and Federal courts, and an interscholastic mock trial program. ACC's schedule is designed to encourage students to take courses at Boston's colleges from which they can receive both high school and college credit.

**Glenwood Elementary School** The school culture at Glenwood Elementary is based on the view that all children can and will learn. This is a message that is transmitted not only to teachers and students but to paraprofessionals and custodians as well. Everyday is arranged so students study ELA and reading for 2 ½ hours and math for 90 minutes. Every minute of the school day is used to the fullest extent. Teachers are trained in differentiated instruction and given the resources to execute it.

The **Knowledge is Power Program** (KIPP) **Academy** in Lynn is part of a national network of free, open-enrollment, college-preparatory public schools serving primarily low-income and minority students in grades 5 through 8. Since KIPP's position is that there are no shortcuts to academic success, the program includes an extended day (7:20 a.m. to 5 p.m. – Monday through Thursday, and 7:20 a.m. to 3:00 p.m. on Friday, 2 Saturdays per month from 9:00 a.m. to 1 p.m.), and mandatory three-week summer sessions for all students. KIPP subscribes to a strong culture of achievement and provides the academic and social support that has enabled 80% of its alumni in 52 schools nationwide to matriculate to college.

**Media and Technology Charter School** (MATCH) serves 210 inner-city Boston students in grades 9 through 12 to prepare them to succeed in college and beyond. MATCH subscribes to a set of non-negotiable rules of behavior and a college preparatory curriculum where no social promotion is allowed. All seniors take AP courses at Boston University, and all juniors take AP U.S. History. The MATCH Corps is a group of 48 recent college graduates who devote a year to providing two hours of personalized tutoring per day to each student in exchange for a modest living stipend and room and board in the school's third floor dormitory. All students in grade 10 receive 100 hours of additional weekend math and English preparation for MCAS tests. Summer Academy sponsored by MIT and the Nellie Mae Foundation, pairs MIT students with struggling MATCH students in grades 10 through 12.

**Roxbury Preparatory Charter School** serves an entirely black and Latino low-income population of 200 students in grades 6 through 8. It prepares students for public and private college–preparatory high schools through an extended day that consists of the following: A Drop Everything and Read period from 7:45 to 8:15 a.m.; College prep math, science, English, and social studies classes from 8:15 a.m. to 3:15 p.m.; Athletics and visual and performing arts enrichment classes until 4:15 p.m.; A strict code of conduct and mandatory uniforms are an important part of the school culture.

**University Park Campus School** (UPCS), established in 1997 in collaboration with Clark University, is a college-preparatory program serving mainly low-income, limited-English proficient, and minority students in grades 7 through 12 from Worcester's Main South neighborhood. To succeed in its goal of getting all students accepted to college, all incoming seventh-graders must attend UPCS' month-long August Academy which focuses on intensive literacy development. Seventh and eighth-grade students spend 2 ½ hours each day in humanities, math and science classes to maximize reading- and writing-intensive class work. Clark University provides students and graduates who tutor and teach at the school. UPCS students may enroll in Clark University classes and use University facilities. UPCS graduates may attend Clark University at no tuition cost.

# Appendix D: Demographic and Performance Overview of Urban Schools Visited

| School | Another Course to College | Glenwood Elementary | KIPP Academy | MATCH | Roxbury Preparatory | University Park Campus School |
|---|---|---|---|---|---|---|
| **Location** | Boston | Springfield | Lynn | Boston | Boston | Worcester |
| **Type** | In-District | In-District | Commonwealth Charter | Commonwealth Charter | Commonwealth Charter | In-District |
| **Grades** | 9-12 | K-5 | 5-7 | 9-12 | 6-8 | 7-12 |
| **Student Enrollment Oct 1, 2006** | 215 | 343 | 231 | 207 | 191 | 244 |
| **Total # Teachers** | 17 | 26 | 17 | 14 | 20 | 17 |
| **Teachers** | 18 | 28[1] | 17 | 13[2] | | 13 |
| **First Language Not English** | 27.9% | 13.7% | 49.4% | 11.1% | 23.0% | 58.6% |
| **Limited English Proficient** | 1.9% | 9.6% | 0.9% | 0.0% | 1.0% | 2.5% |
| **Special Education** | 16.7% | 10.5% | 19.5% | 10.6% | 9.4% | 6.6% |
| **Low-Income** | 62.3% | 71.4% | 85.7% | 69.1% | 63.9% | 72.1% |
| **African American** | 46.0% | 9.9% | 19.5% | 67.1% | 60.7% | 9.0% |
| **Hispanic** | 28.4% | 53.4% | 52.8% | 24.4% | 31.4% | 39.8% |
| **White** | 16.3% | 32.7% | 21.2% | 2.9% | 0.0% | 32.0% |
| **Attendance Rate** | 89.9% | 95.5% | 97.8% | 95.7% | 95.6% | 95.4% |
| **Avg # Days Absent** | 17.2 | 7.4 | 4.0 | 7.6 | 7.8 | 8.1 |
| **ELA MCAS (Spring 06)** | 67 | 77 | 59 | 82 | 91 | 69 |
| **Math MCAS** | 64 | 50 | 71 | 97 | 90 | 58 |

*Source: Massachusetts Department of Education, School and District Profiles*

**You are cordially invited…**

# The Research Bureau's 22nd Annual Meeting

Wednesday, May 30, 2007

Noon

Mechanics Hall, Worcester

**Featured speaker:**

Dr. Thomas Payzant

Dr. Payzant, former Superintendent of the Boston Public Schools, will talk about the 2007 report of the New Commission on the Skills of the American Workforce of which he was a member. The report titled ***Tough Choices or Tough Times*** proposes a radical transformation of pre-K through 12 public education in the United States.

**For more information or to purchase a ticket, contact**
**The Research Bureau**
**at**
**508-799-7169**
**or**
**info@wrrb.org**

*Mission Statement:*
*The Research Bureau serves the public interest of the Greater Worcester region by conducting independent, non-partisan research and analysis of public-policy issues to promote informed public debate and decision-making.*

The Research Bureau

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