The Research Bureau

Choosing a New School Superintendent to Address Worcester's Challenges

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EXECUTIVE SUMMARY

In several months, the Worcester School Committee will execute its most important responsibility, that of selecting a new superintendent for the Worcester Public Schools. What is the basis on which the School Committee will make its selection? The purpose of this report is to examine some of the school district's challenges, how similar school districts are addressing these challenges, and the implications of these findings for a superintendent managing an urban school district consisting of some 23,000 socio-economically diverse students.

Based on a survey of recent literature on urban schools where student achievement exceeds that of other schools with similar demographics[1] and our own observations of selected urban schools in Massachusetts, The Research Bureau makes several observations:

- Improving academic performance is a function of the dynamics at each individual school since school performance can vary widely within the same district.

- The factors that contribute to differences in schools include school leadership, authority over selecting and assigning staff, control over the school's budget and schedule, the "school culture," and the relationships of staff with community organizations and businesses that may provide resources for enhancing school programs.[2]

- Higher performing urban schools have missions and programs that have been established by a collaborative process involving teachers and administrators.

- Heterogeneous urban school districts require various kinds of schools to fit particular circumstances and populations. For example, some students may require a longer school day and school year, others may need programs designed for academically-talented students, and others may need to be in single-sex classrooms to fulfill their academic potential.

- Meeting the variety of challenges facing the Worcester Public Schools will require a superintendent who is willing to reform the system to meet the potential of all students, who is willing to experiment with approaches that have been shown to raise the level of academic achievement in urban schools, and who is prepared to shift priorities to finance such approaches.

[1] See, for example, Massachusetts Office of Educational Quality and Accountability and UMass Donahue Institute, *Gaining Traction*, April 2007, http://www.donahue.umassp.edu/docs/gain-trac-report; Karin Chenoweth, *It's Been Done: Academic Success in Unexpected Schools*, Harvard Education Press, 2007.

[2] Governor Patrick's Readiness Project has reached similar conclusions. According to one administration official, "Readiness schools" will "apply the lessons of charter schools – autonomy, innovation, choice, responsiveness, and a longer school day among others – to the state's traditional public schools." Scot Lehigh, "Patrick's cop-out on the charter cap," Boston Globe, June 13th, 2008, http://www.boston.com/bostonglobe/editorial_opinion/oped/articles/2008/06/13/patricks_cop_out_on_the_charter_cap/.

INTRODUCTION

The City of Worcester is in the process of searching for a new superintendent of schools. That selection will be the most important decision the Worcester School Committee makes and may have ramifications for decades to come. While the quality of our public education is vital to the well-being of Worcester's youth, it also affects the entire community in numerous ways: the quality of our workforce and our cultural and civic life, real estate values, and the City's economic development potential. Since expenditures for the Worcester Public Schools constitute 55% of all municipal spending, the job of superintendent is as important as that of City Manager.

The purpose of this report is to examine some of the challenges facing the Worcester Public Schools, and to describe some ways in which these challenges have been addressed in school districts similar to Worcester.

Facts about the WPS

The WPS enrolls more than 23,000 students in 44 schools serving grades Pre-K through 12. As in other urban districts, students in the WPS are demographically diverse. One-third of the students enrolled in 2006-07 were Hispanic, 42.5% were white, 12.8% were African-American, and 8% were of Asian descent. More than a third (38%) of the students spoke a first language other than English, and 17% of all students could not perform ordinary classroom work in English. Nearly two-thirds of WPS students are from low-income families, and 19% of students have an Individualized Education Plan (IEP), qualifying them for special education services.

As seen in **Table 1**, from FY03 to FY07, the WPS approved budget increased by 11.4%, or more than $24 million. When adjusted for inflation over this period however, the budget declined slightly, by 0.6%. At the same time, however, enrollment steadily declined and per pupil spending increased. On October 1, 2006, there were 2,109 (8%) fewer students enrolled compared to just four years earlier. Per pupil spending increased by 11% from $11,118 in FY05 to $12,377 in FY07, compared to $11,789 statewide, ranking WPS 92 of 302 school districts reporting data.

Despite a 12% reduction in overall staffing levels (resulting in 359 fewer staff) between FY03 and FY07, the budget allocation for employee salaries and benefits grew by almost $20 million, or 11%. Soaring health-insurance costs have consumed an ever-greater proportion of the district's budget, growing from $24.7 million, or 12% of the WPS budget in FY03, to $42.6 million, or about 18% of the budget in FY07. Health insurance costs in the FY09 budget are projected to be $39.6 million, a decrease of $3 million, or 7% since FY07. These savings are the result of negotiated contractual changes in the contribution rate and co-pays. They will be used for instructional costs.

Table 1: Input Indicators for the Worcester Public School District

	FY03	FY04	FY05	FY06	FY07	% Change FY03-FY07
Student Enrollment						
WPS October 1 Enrollment	25,712	25,055	24,538	24,023	23,603	-8.20%
Approved Budget						
WPS Budget (Approved)	$212,775,225	$216,509,552	$222,868,164	$230,478,935	$237,047,827	11.41%
WPS Budget (Inflation Adjusted)	$238,514,474	$237,505,481	$237,338,560	$236,439,401	$237,047,827	-0.61%
Salaries	$148,081,689	$148,247,782	$148,342,903	$147,654,076	$146,955,036	-0.76%
Salaries as % of Budget	70%	68%	67%	64%	62%	
Average Salary (All Positions)	$48,856	$52,645	$52,829	$54,165	$54,998	12.57%
Health Insurance Costs	$24,659,152	$30,128,161	$34,364,865	$37,442,442	$42,555,528	72.57%
Health Insurance as % of Budget	12%	14%	15%	16%	18%	
Retirement	$7,970,080	$8,463,564	$9,428,242	$9,893,271	$10,292,369	29.14%
Total Salaries and Benefits	$180,710,921	$186,839,507	$192,136,010	$194,989,789	$199,802,933	10.56%
Total Salaries and Benefits as % of Budget	85%	86%	86%	85%	84%	
Tuition (Special Education Placements)	$8,901,251	$9,593,249	$10,117,544	$12,234,722	$12,234,722	37.45%
Staffing						
Total Staff (FTE)	3,031	2,816	2,808	2,726	2,672	-11.84%
School and District Administrators	102	94.25	95.25	96.25	94.25	-7.60%
Teachers	2,076	1,942	1,913	1,876.50	1,864	-10.21%
Other	853	780	800	753	714	-16.30%
Funding/Reimbursement						
Chapter 70 State Aid (Actual)	$153,103,294	$154,518,307	$158,861,691	$161,059,359	$167,480,913	9.39%
Chapter 70 State Aid (Inflation Adjusted)	$171,624,077	$169,502,659	$169,176,271	$165,224,550	$167,480,913	-2.41%
City Contribution (Actual)	$71,350,738	$73,843,193	$75,954,193	$80,015,430	$79,337,953	11.19%
City Contribution (Inflation Adjusted)	$79,981,980	$81,004,108	$80,885,751	$82,084,726	$79,337,953	-0.81%

Data Sources: (1) October 1 Enrollment Data: Mass DOE Enrollment By Grade Reports for the years 2002-03 through 2006-07, available at http://www.doe.mass.edu

(2) Budget Data, Staffing, and Funding: Worcester Public Schools Annual Budgets

Salaries line does not include grant-funded positions.

UNDERSTANDING THE CHALLENGES

MCAS Scores: School and District Accountability

The Massachusetts Comprehensive Assessment System (MCAS) was established following passage of the Massachusetts Education Reform Act of 1993 (MERA) to measure student performance based on the Massachusetts Curriculum Frameworks learning standards. The subject-matter MCAS tests, which have been administered statewide since 1998, serve as the primary means by which schools and districts in Massachusetts are held accountable for student performance, as required by both MERA and the Federal No Child Left Behind Act (NCLB) of 2001. Schools and districts in which student performance does not improve sufficiently, as determined by specific state performance standards, are subject to review and possible oversight by the Massachusetts Department of Elementary and Secondary Education. Moreover, besides meeting local graduation requirements, students are required to pass both the grade 10 English Language Arts (ELA) test and grade 10 mathematics test to earn a high school diploma.[3]

MCAS Performance Level Definitions

As defined by the Massachusetts Department of Elementary and Secondary Education, students scoring at the "*Advanced" level* demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems. Students scoring at the "*Proficient" level* demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems. Students whose scores are at the "*Needs Improvement" level* demonstrate a partial understanding of subject matter and solve simple problems, while those performing at the "*Warning/Failing" level* demonstrate only a minimal understanding of the subject matter and cannot solve even simple problems.

In 2005, the Education Quality and Accountability Board (EQA), which had been evaluating school and district performance until the Governor and the legislature voted it out of existence in 2008, placed the WPS "on watch" because of insufficient improvement as determined by specific state performance standards. The district was then monitored for two years by a state-appointed examiner, and in 2008, an EQA report assessing the district's progress was issued. While there was modest improvement in both English Language Arts (ELA) and math (5 and 6 percentage points, respectively), and the district was removed from the "on watch" category, the WPS are still considered low-performing.

What are the consequences of this designation? Under NCLB, districts, schools, and student subgroups (students with disabilities, students with limited English proficiency, economically disadvantaged students and African American/Black, Hispanic, Asian, White and Native American students) must demonstrate *adequate yearly progress* (AYP) that puts them "on

[3] Currently, students need to score at the *Needs Improvement* level or above on both the English Language Arts and Mathematics MCAS grade 10 tests to meet the State graduation requirement. Passing MCAS exams in **Science and Technology/Engineering** and **History and Social Science** to graduate will be required starting with the classes of 2010 and 2012, respectively.

target" for all students to reach proficiency by 2014. AYP determinations are based on a combination of student attendance and MCAS participation, performance, and improvement over time. A school or district that fails to make AYP for two or more consecutive years in the same subject area, either for students in the aggregate or for subgroups, is identified as in need of improvement, corrective action, or restructuring status. Schools or districts that make AYP in a subject for all student groups for two or more consecutive years are assigned to the "No Status" category. Schools in need of improvement, corrective action, or restructuring all face specific consequences that grow in severity each year that they do not make AYP. (See accompanying definitions.)

In 2007, 33 Worcester schools (75%), enrolling more than eighty-percent of the district's students, were identified for improvement, corrective action, or restructuring in math, ELA, or both, either in the aggregate or for subgroup performance. Fourteen schools in Worcester are implementing restructuring plans that were approved by the Massachusetts Board of Elementary and Secondary Education, including all four of Worcester's middle schools, which were identified for restructuring status in 2007. (All four of Worcester's comprehensive high schools were identified either for improvement, corrective action, or restructuring. The district as a whole was identified for corrective action for subgroup performance in both ELA and math.)

AYP Accountability Status Definitions

As defined by the Massachusetts Department of Elementary and Secondary Education, a school or district that has not made AYP for two consecutive years in ELA or math, in the aggregate or in any subgroup, is labeled as *Identified for Improvement – Year 1*. If the same school or district does not make AYP in the same subject (ELA or math; aggregate or subgroup) in the following year its status will become *Identified for Improvement - Year 2*. Responsibilities for schools that are identified for improvement include: notifying parents/guardians of their children's school's status, revising the school's improvement plan, and receiving technical assistance from the district. Additionally, schools receiving Title I funding (Title I is a federal program that distributes funds to schools and districts that have a large proportion of low-income students) must provide their students with the option of attending another school; a portion of the Title I funds must be put towards professional development; and supplemental educational services must be offered to low-income students in the school.

If AYP is not met again in the subsequent year, the school or district will move into the *Corrective Action* category. Along with the responsibilities stated above, the district must take at least one corrective action, such as extending the length of the school day or year or replacing certain school staff. Another year of failure to make AYP will result in the school moving into *Restructuring* status. The district must develop and implement a plan for fundamental reforms at the school while in Restructuring. Required reforms include major changes in the school's governance, structure and staffing such as the principal's authority over hiring and firing staff. A *No Status* school or district is one that has made AYP for at least two consecutive years in a subject in all grades.

But the total picture is by no means bleak. There are some schools in the district, such as University Park Campus School, Worcester Arts Magnet, Jacob Hiatt Magnet, Thorndyke Road and Clark Street, where academic performance exceeds what the demographics would indicate. How can we account for higher performance in those schools and how can we replicate it in the district? This is one of the most important challenges for the next superintendent.

Graduation Rate

High school graduation rates are a significant indicator of overall school performance. Under No Child Left Behind, schools, districts, and states must now report their graduation rates, or the percentage of students who earn a high school diploma in four years (the standard period for completion). High schools are held accountable for their students graduating on time as part of the AYP determination.

These data were reported by the Massachusetts Department of Elementary and Secondary Education statewide for the first time for the class of 2006. Students are not counted as "on-time" graduates if they either have dropped out, have not passed the MCAS exam, are still enrolled in school, have been expelled, or obtained a GED instead of a regular diploma. Graduation rates are based on a different measure from dropout rates because the graduation rate represents a particular cohort that starts in ninth grade and completes twelfth grade, while the dropout rate is calculated for a particular school year.

Statewide, about 81% of students in the class of 2007 who entered ninth grade in the fall of 2003 graduated from high school in four years. (For the class of 2006 the figure was 80%.) Among urban districts, about 63% of this cohort graduated in four years. Of 22 urban districts in Massachusetts, Worcester's graduation rate was above the average. About 70% of students in the WPS graduated in four years, while 9.6% are still enrolled in school; 14.7% dropped out; 3.2% earned a GED; 2.4% either completed course work but did not pass the MCAS exam, or were special-education students who had reached the maximum age for remaining in school; and .2% were expelled.

The next superintendent should focus on improving the graduation rate. A high-school diploma represents the bare minimum for employment in an age where economic success increasingly requires specialized training and education beyond high school. And a high-school diploma is essential to access post-secondary training. According to the Bureau of Labor Statistics, during the third quarter of 2007, median weekly earnings for college graduates with at least a bachelor's degree were about 78% higher than those individuals who had only a high school diploma ($1,088 per week versus $610).

Advanced Placement (AP): Participation and Performance

Over the past decade, the WPS has seen growth in both the number of AP course offerings (from six in 1996 to 27 in 2007) and the number of AP exams administered (more than a threefold increase). However, during this period, performance has remained relatively flat.

During the 2006-07 school year, 553 students in the Worcester Public Schools were enrolled in 27 Advanced Placement courses, including natural sciences, foreign languages, social sciences, and fine arts. Students who completed one or more AP courses took a total of 805 AP exams, an increase of about 50% from 2002, when more than 500 tests were administered.[4] A majority of WPS students enrolled in AP courses (84%) took the AP exam at the completion of the course (51 students did not do so in 2007). Exam grades are reported on the following five-point scale: (5) extremely well qualified to receive college credit or advanced placement, (4) well qualified, (3) qualified, (2) possibly qualified and (1) no recommendation to receive college credit or advanced placement. According to the College Board, which administers the tests, exam grades of 3 or above are considered equivalent to a college course grade of "middle C" or above. In 2007, less than half of Worcester's AP scores (47%) were 3's, 4's, or 5's; in 2006, this percentage was slightly higher at 49%.

In its 2007 *Advanced Placement Report to the Nation,* the College Board urged educators to track the quality of learning in AP courses as their AP programs expand.[5] The report states that "a 3 is the grade that research consistently and currently finds predictive of college success and graduation." While increased enrollment in AP courses may indicate WPS students' desire to increase their preparedness for college, the fact that only about half of scores reached the level of 3 or higher may indicate either that AP teachers and students are not receiving adequate preparation for the rigors of an AP course or that more weak students are being persuaded to take the exam. Adequate preparation in earlier grades is also an important factor in ensuring the success of students who enroll in AP courses.

In 2007, the Massachusetts Math & Science Initiative received a grant from the National Math and Science Initiative to provide Advanced Placement and Pre-AP teachers with extensive training and preparation, as well as performance-based financial incentives for teachers and students. The goal of the program is to "increase student enrollment in mathematics, science, and English AP courses, as well as to improve student performance as reflected by an increase in the number of qualifying scores."[6] Five Regional Development Centers have been set up to carry out this initiative, and each will include partnerships between higher education institutions and local school districts. The Central Massachusetts center will be led by WPI, UMass Medical School, and Framingham State College.

The next superintendent should make improvement of AP instruction and scores a priority to ensure that academically gifted students are retained in the WPS and receive the preparation necessary to succeed in college.

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[4] Course offering, enrollment, and AP exam data were obtained from *Worcester Public Schools: Report on Advanced Placement Trends: 1996-2007*. Of the AP exams administered to WPS students in 2007, the largest percentage (38%) were English Language and Composition or English Literature and Composition, 11% were US History, 9% were Spanish Language, and another 9% were Calculus.

[5] College Board, "Advanced Placement Report to the Nation 2007." http://www.apcentral.collegeboard.com

[6] www.massinsight.org/initiatives

College and Career Readiness

In February 2008, the Massachusetts Board of Higher Education and the Massachusetts Department of Elementary and Secondary Education issued the first School-to-College Report based on data from the high school class of 2005. The purpose of the report, which will be prepared annually, is to determine college readiness of public high school graduates enrolled in Massachusetts public post-secondary institutions. Key findings included the following:

- Among the 19,000 public high school graduates enrolled in a Massachusetts public postsecondary institution in fall 2005, 37 percent enrolled in at least one developmental (remedial) course in their first semester in college.

- Of students enrolled at community colleges, 65 percent enrolled in at least one developmental course, compared to 22 percent at state colleges and 8 percent at state university campuses.

- Remediation rates were higher for some student groups:
  - 63 percent of students who had received special education services in high school
  - 59 percent of African Americans
  - 58 percent of Hispanics
  - 52 percent of low-income students
  - 50 percent of limited-English-proficient students

- Among students who passed the 10th grade Mathematics MCAS test at the needs-improvement level, 50 percent enrolled in developmental math, as opposed to 20 percent of students who passed at the proficient level and 4 percent at the advanced level.

How did Worcester public high school graduates compare with the state profile? **Table 2** below offers some insight.

Table 2: WPS and State School-to-College 2005 Cohort		
Academic Preparation of the 2005 School-to-College Cohort		
	District	**State**
Average cumulative high school GPA	3.3	3.1
Percent who took an AP course in high school	20%	20%
Enrollment of the 2005 School-to-College Cohort in Developmental Coursework		
Percentage enrolled in developmental coursework during fall 2005 overall and by subject		
	District	**State**
Enrolled in one or more developmental subjects	55%	37%
Enrolled in any developmental coursework by subject		
Math	46%	29%
Reading	21%	11%
Writing	19%	15%
Note: Students may enroll in more than one developmental subject per semester		
Percentage enrolled in developmental coursework during fall 2005 by student characteristics		
	District	**State**
African American	65%	58%
Asian/Pacific Islander	39%	33%
Hispanic	63%	58%
White	52%	33%
Limited English Proficient	59%	50%
Low Income	59%	52%
Special Education	78%	62%
Percentage of students enrolled in developmental math by 19th grade MCAS mathematics performace level		
Advanced	17%	4%
Proficient	34%	20%
Needs Improvement	58%	50%
Percentage of students enrolled in developmental math by 10th grade MCAS ELA performace level		
Advanced	na	na
Proficient	4%	4%
Needs Improvement	36%	28%
Source: Massachusetts School-to-College Report, April 2008		

As **Table 2** indicates, graduates of the WPS are less prepared for college-level work than students statewide: 55% required at least one remedial course compared to 37% for the state as a whole. Remediation, which does not count towards degree attainment, is costly. For students, it leads to increased time to graduation, higher educational expenses, and an increased likelihood of dropping out of college. Because African American, Hispanic, low income, and limited-English-proficient students, along with students who received special education services in high school were more likely to enroll in developmental courses, these subgroups of students are disproportionately affected by the high costs of remediation.

The next superintendent of the WPS faces the challenge of ensuring that students are ready for college-level courses. Jobs – even entry-level positions – demand ever-increasing levels of skill and knowledge. By 2010, jobs requiring some postsecondary education will make up more than two-thirds of new jobs in the United States. Therefore, our public education system will need to ensure that more high school graduates will be college-ready.[7]

In the preceding pages, we have raised a few of the challenges facing the next superintendent. Others include:

Instruction to limited English proficient students
What is the most effective way to teach Spanish-speaking students: English language immersion, which was approved by referendum of the voters of Massachusetts in 2002, or bilingual education, which is still used to instruct Spanish-speaking students because of a court-ordered consent decree dating to 1983. (And consent decrees mandating bilingual education have been lifted from other cities at their request, and therefore could be lifted from Worcester as well.)

Growing achievement gap between girls and boys
Both locally and nationally, female students are outpacing their male classmates on test scores, graduation rates, and attendance. Boys, especially black and Latino students, are more likely to get suspended, be held back a grade, and drop out. Since WPS students are more than 45% black and Latino, special efforts must be made to address this population's needs. In many districts, including Boston, superintendents are experimenting with single-sex programs, which have increased nationally from three in 1995 to about 366 currently.

[7] *Massachusetts School-to-College Report High School Class of 2005*, Massachusetts Department of Elementary and Secondary Education, February 2008.

OPTIONS FOR ADDRESSING THE CHALLENGES

As the previous section indicates, the WPS, like many urban districts, is coping with serious issues related to the diverse composition of the student body – large discrepancies in income level, racial and ethnic differences, the impact of single-parent families and limited English proficiency, and with almost one-fifth of students requiring special-education services. How does an urban district address this multitude of challenges?

Over the past two years, The Research Bureau has issued two reports tracking trends in the WPS and held three public forums and issued a third report on improving academic achievement in the WPS. These reports were prepared after extensive research into the literature on successful urban schools, in-depth interviews and site visits to five successful Massachusetts urban schools, and bringing together the leaders of eight other successful urban schools and five researchers during our public forums. From these efforts and the regulations approved by the Massachusetts Board of Elementary and Secondary Education,[8] a clear pattern of the elements of a successful urban school begins to emerge.

Improving academic performance is a function primarily of what happens at each individual school. Among schools with similar demographics in a given district, there are often considerable differences in student achievement. The factors that contribute to those differences include school leadership, the roles and responsibilities assigned to school staff, the school culture, and the relationships of staff with community organizations and businesses that may provide resources for enhancing school programs. A more detailed description of some of the elements contributing to higher-performing urban schools follows.

We will illustrate these elements with reference primarily to eight schools where we either observed classes and/or conducted in-depth interviews with school leaders. Two were charter schools (Roxbury Prep and KIPP Academy in Lynn), three were pilot schools, that is, in-district charter schools (Another Course for College or ACC, Tech Boston Academy, and Boston Arts Academy), two were district schools (University Park Campus School, or UPCS, and Glenwood Elementary), and one, Nativity School, is an independent school in Worcester that is part of a national network. (A profile of the schools mentioned can be found in **Appendix A**).

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

Principals at higher-performing urban schools have far more flexibility and authority when hiring or firing teachers than WPS principals do. At Roxbury Prep charter school, 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 charter school teachers do not sign a contract, and the principal can dismiss a teacher any time during the year. A Roxbury Prep administrator remarks: "In order for school leaders to make real changes,

[8] 603 CMR 2.03 Subsection 8e.

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 in Springfield 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 2007 report, *Gaining Traction.* Public-school principals according to that report are concerned about their lack of 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 Tech Boston Academy, Roxbury Prep, ACC, and KIPP are charter or pilot schools, the principals have authority over their budgets and can allocate funding according to their own priorities. Tech Boston hires teachers for technical subjects at a higher salary than other teachers. Roxbury Prep 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.

3) 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.

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 help cultivate writing skills. Glenwood Elementary students take two and a half hours of English per day and one and a half hours of math. UPCS 7th graders take 90 minutes of English and one hour of math daily; 10th 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. (We are not attempting to assess particular teaching techniques here, but only to illustrate the variety of ways of encouraging the development of English and math skills.)

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

Roxbury Prep 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. ACC students attend school from 8am to 2:30pm although freshmen are required to stay an additional hour until 3:30pm. After-school study hall 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. Students at the Nativity School attend class from 7:30 AM to 6:30 PM on three days and from 7:30 AM to 5 PM on two days. There is always a structured evening activity. There are currently three Worcester schools that have a longer day.

In addition to longer school days, some of the schools in our sample have summer sessions for their students. Entering students at UPCS are required to attend summer classes prior to starting the regular school year: UPCS students attend a "Transition Academy." All KIPP students attend a three-week summer session, with six hours of school per day. The Nativity School conducts two three-week summer programs.

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. For example, College of the Holy Cross students tutor students at the Nativity School.

Administrators at all of the schools visited stressed the importance of maximizing learning time. Every day upon entering the classroom, Roxbury Prep students are given a "Do Now" assignment which they must complete right away. This exercise focuses student attention immediately on the subject.

5) 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. ACC does not have full-time subject area coaches; however, two ACC teachers were previously coaches. School leaders interviewed for *Gaining Traction* 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.

6) School administrators periodically evaluate faculty, including evaluation of applicable content knowledge and annual evaluation of overall performance tied in part to 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 by supervisors at least fifteen times per year.

In assessing teacher quality, administrators at the schools visited emphasized strong subject matter expertise, shared commitment to the school's mission, and work ethic. 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.)

7) 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 three- to four-week session of curriculum development and preparation in August. The higher performing school staff interviewed for *Gaining Traction* use planning time for both instructional preparation and the development of collegial relationships.

8) School Culture

Another significant characteristic of the higher performing urban schools examined is establishing the right "school culture:" a set of core beliefs and expectations that guide the outlook and action of staff and students alike. This can be particularly helpful to students coming from backgrounds where academic success may not be expected or its importance not clearly communicated. [9] Among higher-performing schools, staff interviewed for *Gaining Traction* report that school culture may be second only to school leadership in improving student performance.

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

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. Roxbury Prep administrators agree that focusing attention on nominal infractions saves 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: 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.

School culture may include uniforms as well. 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. Students at the Nativity School, an all-male school, wear a white shirt, purple tie, and khaki pants. 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 all of the higher performing schools.

Conclusions and Recommendations

The characteristics of higher performing urban schools coupled with the diversity of the student population in the WPS suggest the need for a radical restructuring of the district. Michael Contompasis, former headmaster of Boston Latin School, former Chief Operating Officer and former Superintendent of the BPS, argues that every school should have its own mission and culture established by a collaborative process involving teachers and administrators. Such a process gives everyone a stake in the outcome. Having the autonomy and authority to complement those plans is essential. Given the heterogeneity of the students in the WPS in terms of backgrounds and abilities, various approaches are needed to fit particular circumstances and populations. Thus, Mr. Contompasis suggested the addition of an exam school (on the order of Boston Latin) for the most academically-talented students, single-sex schools or at least classes for those who would perform better under those conditions, and extended days and summer programs for those who need more time to complete the curriculum, to mention but a few examples. The Boston Public Schools have been experimenting with different models for more than a decade. The Washington, D.C. schools are the latest to move in this direction of a variety of largely autonomous schools within the district accountable for meeting district and state standards and requirements.

Are the constituents of the WPS, the City's residents and its leaders prepared to reform a system that is not meeting the potential of all students? Are they interested in experimenting with approaches that have been shown to raise the level of academic achievement elsewhere? Are they prepared to shift priorities in order to finance a different approach to organizing schools and the central administration? Selecting a new superintendent provides the opportunity for choosing a new direction for the WPS.

APPENDIX A: OVERVIEW OF HIGHER-PERFORMING URBAN SCHOOLS

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.

Boston Arts Academy, a pilot school founded in 1998, is the city's first and only high school for the visual and performing arts. The school recognizes that academics and arts are equally important to student development and achievement, and this carries throughout the academic curriculum at the school. Along with a full college preparatory course load that emphasizes writing skills, students specialize in one of five arts: visual arts, theatre, dance, instrumental music or vocal music.

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.

Nativity School is an independent, tuition-free Jesuit school for male students from disadvantaged Worcester neighborhoods in grades 5-8. Along with an extended school day that includes after-school activities and evening study, Nativity also runs a month-long session during the summer. Admission priority is given to students with financial needs, below grade-level performance, and a desire to learn. The school encourages its students to attain great academic achievement while nourishing their individuality, emotional growth, and overall well-being. Nativity also involves its past graduates; if not attending boarding school they are required to participate in evening study at least once a week where they can receive tutoring and also serve as role models for current students.

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.

TechBoston Academy is a pilot high school in Boston serving high school students in grades 9-12. The school, which opened in fall 2002 and is open to students through an annual school choice lottery, integrates technology throughout its curriculum. The school's mission is that "every student can learn and develop into a responsible citizen by providing an environment that is both nurturing and challenging." Students learn to use a variety of technological tools, and all are required to focus on a particular technology area, such as Networking or Information Systems, during their final three years.

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.

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