



# POLIC BRIEFS

RESEARCH BRIEF

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could be solved by rules, a computer could do it.) New problems run the gamut from doing research to fixing a new problem in a car (not covered in the manual) to creating a new dish in a restaurant.

The other is “complex communication”—the ability not only to transmit information, but also to convey a particular interpretation of information to others in jobs like teaching, selling, and negotiation.

Historically, most American schools only taught the skills needed to excel at problem-solving and complex communication tasks to the minority of students aiming for competitive colleges. By the 1980s, however, the students who lacked

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these general skills began to suffer real losses in the marketplace. As opportunities for women expanded, for example, college-educated women saw sharp earnings gains while the earnings of high school educated women remained stagnant. Similarly, between 1979 and 1985, the average real hourly wage of high school educated men had fallen by nine percent.<sup>1</sup> Both trends reflected the loss of rules-based jobs – blue collar and clerical jobs – to computer substitution and outsourcing.

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Initially, many reformers thought that spending more money on schools would, by itself, reverse these trends. Between 1970 and 1990, average real-per-student expenditures in American public schools rose by 73 percent.<sup>2</sup> Student-teacher ratios fell, and new instructional programs proliferated. Yet test scores rose only modestly, and state legislators were losing patience with spending more money and hoping for the best.

By the late 1980s, Republican and Democratic governors and a coalition of the nation’s largest businesses came to embrace standards-based education as the most promising way to improve American education. While each state has pursued these policies in different ways, all standards-based educational reforms include four components:

- Content standards that specify what students should know and be able to do, and performance standards that describe how students should demonstrate their knowledge and skills as well as what levels of performance constitute meeting the standard.
- Assessments that measure the extent to which students meet performance standards.
- Instructional materials and professional development that provide teachers with the knowledge, skills, and materials needed to prepare all students to meet the performance standards.
- Incentives for educators to do the hard work required to prepare all students to meet the performance standards and incentives for students to devote the time and energy needed to meet the performance standards.

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The road from these national debates to the Murphy School ran through the Massachusetts State Legislature. Under pressure from the state’s Supreme Judicial Court to equalize educational funding, the state legislature passed the Massachusetts Education Reform Act of 1993. The legislation promised increased financial support for public education and the state backed up this promise over the next decade with more than \$12 billion in new education aid to the state’s public schools. In exchange, the legislation mandated substantially greater accountability for student performance.<sup>3</sup>

Over the next year a 40-member commission with wide-ranging representation created the “Common Core of Learning,” a statement of goals that declared that sch Massachusetts students should be able to “read, write, and commung ste effectively,” and “defme, analyze, and solve complex problems.”<sup>4</sup> In the following years, committees developed curr gular frameworks that put flesh on the skeleton of learning standards – a contentious process with many fights over priorgties and details. By the lste 1990s, the basic elements of the curr gular frameworks were in place.

Beyond the curr gulum frameworks, the state faced the problem of assessments: how would the state measure students’ mastery of the new standards? Spurning the low-cost approach of adopting existing standardized tests offered by commercial publishers, the state paid a contractor to develop exams that would be aligned with the new standards in a Massachusetts Comprehensive Assessment System (MCAS). To encourage the development of commung stion skills, students would be askT to provide open-ended responses to some questions on both the math and English Language Arts (ELA) exams. For the same reason, the ELA exams would require students to write an essay on a specifIT topic.

Once the students took the tests, how would the scores be used? As a first step toward accountability the state decidT to make the test questions publicly available shortly after students completed them each May. This would schow parents and taxpayers to see what the Commonwealth’s students were being tested on. The state would scso provide school districts with reports specifying every student’s response to every question that sffected a student’s score on each part of the MCAS.<sup>5</sup> In theory, schools could use the informstion to identify the skill deficiencies of individual children and weaknesses in instruction. In another step to promote accountability, the distribution of student scores

in each school would be made available to the media and posted on the Department of Education website, giving each school’s performance substantial public visibility.

In a final, controversial decision, the state announced that beginning with the high school class of 2003, students had to achieve passing scores on the tenth-grade MCAS English language arts and mathematics exams in order to receive high school diplomas. The decision reflected the belief that accountability for schools had to be reinforced by incentives for students. It was also an attempt to restore some value to a high school diploma.

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The new state accountability system posed enormous challenges for the Boston Public Schools. Most of the 63,000 students attending the city’s public schools were students of color from low-income families who, historg sch003,1as Tc is30.T very poorly on achievement tests. Nor did Boston start off well. Between 1990 and 1995, Boston workT its way through four school superintendents, including two interim heads. The lack of leadership was evident both in low test scores and in the lack of a coherent system-wide plan to improve them.

In 1995 Thomas Payzant became Boston’s superintendent of schools. From his decade-long experience as school superintendent in San Diego and as U.S. Assistant Secretary of Education in the Clinton administration, Payzant understood the logic of standards-based reforms. He believed that the only way to prepare Boston’s students to master the state’s learning standards was to maintain a focus on teaching and learning.

His plan, “Focus on Children,” emphasized lit-

Mary Russo became principal of the Murphy School on July 1, 1999. Her career included a successful tenure as principal at Boston's Samuel Mason School, and two years with the Boston Annenberg Challenge, helping Boston Public Schools to implement the system's new curricula. During the summer of 1999, many Murphy parents and teachers dropped by to welcome her to the school. They brought a common message: if Mary wanted to succeed at the Murphy, she should not change anything. Russo did not agree with this view. Her work at the Mason School convinced her that the Murphy's students could learn the skills to do well on the MCAS. The issue was how to engage the Murphy School faculty in this endeavor.

- What do the results tell us about our instructional program?
- How should we respond as a school faculty?
- What are the implications for my grade level?

Some teachers reacted defensively to the new principal's questions, arguing that they had worked hard and that the patterns were what you would expect given the school's students. Others were puzzled, pointing out that they had taught the skills needed to answer the MCAS questions. This faculty meeting marked the start of a process to focus the school on improving math and literacy instruction.

By the end of the school year the school's Instructional Leadership Team had devised a school-wide improvement plan that, following Payzant's lead, focused on improving literacy and math instruction. One element was a change in the school's schedule so that the first two hours of every school day were focused on literacy, with the next seventy minutes focused

The state had assumed that detailed MCAS scores would help schools to improve teaching. But few schools had ideas about how to take advantage of the new information. The delivery in late fall of boxes and boxes of paper providing item-level scores on tests students had taken the previous May provided few schools with a stimulus for change. However, the Murphy was one of those few schools.

Change began at the first faculty meeting of the 1999-2000 school year, when Russo showed the school's teachers a set of May 1998 MCAS questions that a majority of the school's fourth graders had answered incorrectly. For many of the school's teachers this was a new experience. Even though the school's fourth grade students had taken the MCAS for two years, many of the teachers had never looked at the exam. Russo asked the teachers to discuss three questions:

While Russo and the Murphy teachers found that much could be learned from the MCAS results, the time lag between giving the test in May and receiving the results in late fall created a problem. The school needed more timely information on students' skills and on the effectiveness of instruction. Implementing the more regular assessments mandated by the central office provided this information. At the Murphy each grade-level team chose a question that students would write about in their fall, winter, and spring writing assessments. The faculty chose a scoring metric that rated each essay in two dimensions: topic development and use of writing conventions – the same dimensions used in scoring the essays students wrote for the MCAS. The teachers graded the students' essays in their grade level team meetings and Jack Flynn recorded the grades on a spreadsheet. The chang-

mances on the formative assessments as well as on the MCAS, the plan listed the particular skills these students needed to develop.

The school took several steps to assure that students with ISPs received the help they needed to improve their performance. One was the development of an after-school program in which the first 75 minutes were devoted to homework and extra help. Jonna Casey, a teacher with a background in business who had moved to the Murphy with Russo, played a key role. She wrote grant proposals that raised money to supplement the modest fees Murphy School parents could pay for after-school. She recruited Murphy School teachers to teach in the program. She and Russo worked with the after-school teachers to be sure that every activity, from puppetry to music to chess, had a lesson plan that tied each element of the curriculum to one or more of the state learning standards. The school also developed a summer school program to keep children learning and a voluntary Saturday program that focused on MCAS preparation.

None of the activities at the Murphy School is unique. However, relatively rare are the coordination of all of the school's activities around learning standards, the focus on continual improvement, and the consistent measurement of students' progress toward meeting learning standards. Also relatively uncommon is the creation of a culture in which all adults are expected to contribute to the development of children's literacy and math skills. At the Murphy all administrators participated in learning to teach the new math and English language arts curriculum, as did all teachers, including bilingual education, special education, music, art, and physical education teachers.

Because it took time for teachers to learn to teach the new curriculum and for students to learn what was expected of them, students' skill in mastering the new standards-based curriculum did not come quickly. But the students' MCAS scores suggest the consistent focus on standards-

es in scores between the fall and winter essays enabled teachers to assess how well their teaching had taken root and which students needed special help. The teachers used student scores on the mid-year district-wide math exams in a similar way.

To be sure that students did not slip through the cracks, Murphy teachers developed an Individual Success Plan (ISP) for every child who received a "1" on either the MCAS math or ELA exam. Using information from students' perfor-

based skills is taking root. Where 54 percent of Murphy fourth graders scored on level 1 (warning) on the math exam in 1998, only 5 percent did so in 2004. And while 37 percent received a Level 1 ranking on the ELA exam in 1998, only 6 percent did in 2004.

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While progress at the Murphy was exceptional, schools across Massachusetts have been making progress, according to the National Assessment of Educational Progress (NAEP), a set of skill assessments administered to a national sample of students by the U.S. Department of Education. On the 2002 NAEP writing assessment, 42 percent of Massachusetts eighth graders scored at or above “proficient” in writing, a figure second only to Connecticut, and an increase of 11 percentage points over the 1998 figure. Other states that have been working at standards-based reform for more than a decade— such as Connecticut, Kentucky, Maryland, North Carolina and Texas—have seen the achievement of low-income students and students of color rise on both the NAEP and state-mandated assessments.<sup>6</sup>

Given this evidence it is not surprising that people from many perspectives support standards-based educational reforms. For example, the civil rights lawyer, William Taylor, writes,

states as D.<sup>9</sup> The many low grades helps to explain why standards-based educational reforms have many critics.

The problems can continue at the school district where resources are not focused on improving instruction either because money is misallocated or money isn't there in the first place. The needed leadership can be equally scarce. More than half of urban school district superintendents stay in their jobs fewer than three years – far too short a time to organize and implement a coherent strategy for improving the performance of all schools.

Critics cite all of these problems in arguing that standards-based reforms are a step backwards – a series of exercises that actually divert schools from improving education. The critics' most damaging piece of evidence is one even proponents concede: the evidence of standards-based progress is confined almost entirely to elementary schools. High schools, particularly in urban school districts, have not shown much progress and making high schools work for most students—not just those preparing for competitive colleges—remains the most pressing problem facing American K-12 education.

Despite progress in elementary schools, Massachusetts is not immune to this criticism. More than 4,000 Massachusetts high school students in the class of 2003 did not obtain diplomas because they did not pass the MCAS exams, even after five tries spread across two years. In Boston the percentage of the Class of 2003 passing the MCAS increased from 40 percent on the first test administration (when the students were in the tenth grade) to 78 percent on the fifth try. While this is clearly progress, critics point to the 22 percent of Boston high school students who were denied diplomas. They argue that standards-based reforms unfairly penalize these students, who are disproportionately students of color attending urban schools, because the students did not receive the consistently high quality instruction.

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The problems cited by the critics are real but there is reasonable hope for improvement, particularly in light of the fact that no state has much more than a decade's experience with educational standards. As evidence comes in and

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tant in guiding instructional improvement at the Murphy.

As they hone their efforts, however, states and school districts should exercise caution in extending accountability systems beyond the enabling skills of reading, writing, and mathematics. Fields such as social studies are so vast, state-mandated tests of students' knowledge of these fields are likely to emphasize recall of facts – such as the date of Drake's battle with the Spanish Armada – rather than students' understanding of complex relationships – such as why the battle marked an important turning point in European history. Tests that push instruction toward broad coverage rather than helping students to develop in-depth understanding of interrelationships will not help students to acquire the mindset and habits that characterize expert thinking. In addition, requirements that high school students pass standardized examinations in fields such as social studies and science in order to acquire a high school diploma are likely to push instruction in high schools toward preparation for these tests. Given the failure of American high schools to develop the skills of a great many students, it is important to encourage innovation rather than to create incentives to focus instruction on test preparation.

5. The only questions not made public were those being tried out for possible inclusion on next year's exams. Students' scores on these questions did not count toward their grade on the exams.

6. This information is taken from the following U.S. Department of Education website: <http://nces.ed.gov/nation-sreportcard/writing/results2002/statearchive-g8-compare.asp>.

7. Taylor, William L., "Standards, Tests and Civil Rights." *Education Week*. Washington D.C. 20, (2000); 56, 40-41.

8. Ladd, H.F. and R. P. Walch, "Implementing Value-Added Measures of School Effectiveness: Getting the Incentives Right," *Economics of Education Review* 21 (2001).

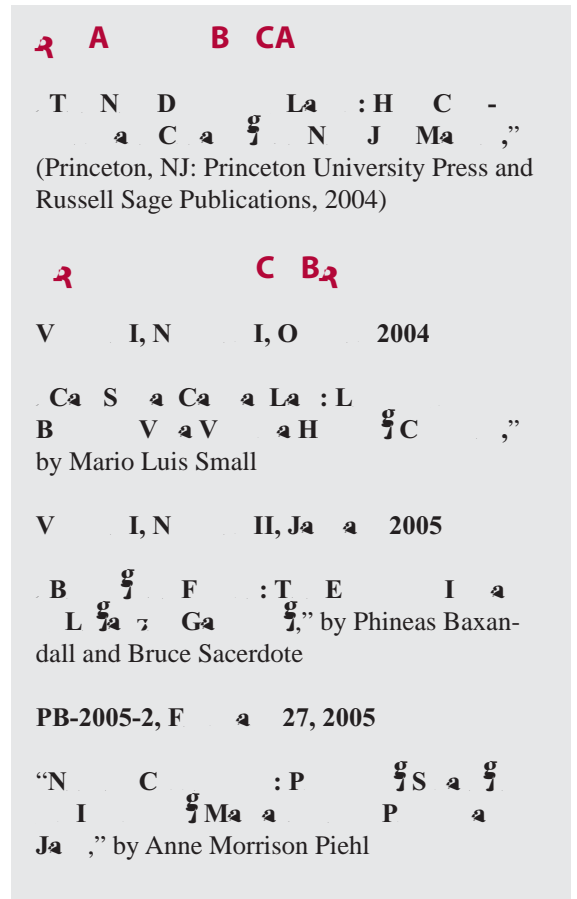
9. Week, E. "State of the States," *Education Week*. Washington D.C. 75-15, p. 84.

1. The wage data come from the following Economic Policy Institute website: [http://www.epinet.org/content.cfm/datazone\\_dznational](http://www.epinet.org/content.cfm/datazone_dznational).

2. Expressed in constant 2000-2001 dollars, the relevant numbers are \$4,427 for the 1969-1970 school year and \$7,653 for the 1989-1990 school year. These figures are taken from the Digest of Education Statistics 2001, Table 167, page 191.

3. The \$12 billion figure represents the cumulative increase in state aid over the period 1994-2003 over the 1993 level. The figure is not inflation-adjusted. We are indebted to Robert Costrell for providing this information.

4. The Massachusetts Common Core of Learning, available at: <http://www.doe.mass.edu/edreform/commoncore/thinking.html>.



**B 101 2005****C :**

Monday, February 28, 1st floor, 120 Tremont Street, Suffolk Law School 5:30 - 7:30 p.m.

Co-sponsored by the Malcolm Wiener Center for Social Policy and the Program on Criminal Justice Policy and Management at Harvard's Kennedy School of Government and Northeastern University's Ford Hall Forum. The Suffolk Law School is located across from Park St. T Station.

**A J. Casella**, Suffolk County Sheriff

**S. Harrell**, former Massachusetts Attorney General and chair of the Commission on Corrections Reform and the Department of Correction Advisory Council.

Moderated by **A. P.**, Associate Professor, Kennedy School of Government and research director for the Commission on Corrections Reform.

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Wednesday, March 2, Taubman AB, 5th floor Taubman Building 12:00 - 2:00 p.m.

Co-sponsored by the Taubman Center for State and Local Government

**D. L.**, National Center for Digital Government.

Commentary by State Senator **J. B.**, State Senator and Co-Chair of the Massachusetts Joint Committee on Public Safety, commentator.