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# Mayoral Governance and Student Achievement

## How Mayor-Led Districts Are Improving School and Student Performance

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# Contents

# Introduction and summary

Using mayoral governance—in which a city's mayor replaces an elected school board with a board that he or she appoints—as a strategy to raise urban school performance began about two decades ago, when then-Mayor of Boston Raymond Flynn (D) gained control over the city's school district.[1] Boston was soon followed by Chicago, where Mayor Richard M. Daley (D) appointed both the chief executive officer and the entire school board of the school system. Over the past 20 years, mayoral governance of schools has been featured prominently in nearly 20 urban school systems across the country. (see Table 1)

Mayoral control and accountability is one of very few major education reforms that aim at governance coherence in our highly fragmented urban school systems. A primary feature of mayoral governance is that it holds the office of the mayor accountable for school performance. As an institutional redesign, mayoral governance integrates school-district accountability and the electoral process at the systemwide level. The so-called education mayor is ultimately held accountable for the school system's performance on an academic, fiscal, operational, and managerial level. While school board members are elected by fewer than 10 percent of the eligible voters, mayoral races are often decided by more than half of the electorate. Under mayoral control, public education gets on the citywide agenda.

Governance constitutes a structural barrier to academic and management improvement in too many large urban districts, where turf battles and political squabbles involving school leaders and an array of stakeholders have for too long taken energy and focus away from the core mission of education. Many urban districts are exceedingly ungovernable, with fragmented centers of power tending to look after the interests of their own specific constituencies. Consequently, the independently elected school board has limited leverage to advance collective priorities, and the school superintendent lacks the institutional capacity to manage the policy constraints established in state regulations and the union contract. Therefore, mayoral accountability aims to address the governing challenges in urban districts by making a single office responsible for the performance the city's

public schools. Citywide priorities such as reducing the achievement gap receive more focused attention.

This report examines the effects of mayoral governance on two specific areas—resource management and student achievement. In analyzing multiple, longitudinal databases on student achievement and financial management, this report found that mayoral governance has improved urban school districts. The findings will be useful to current and future mayors who may consider taking a greater role in public education. The following are among the report's key findings:

- Mayoral-led districts are engaged in strategic allocation of resources. According to available nationwide data over a 15-year period, mayoral-control districts were positively associated with investment in teaching staff, more spending on instruction, smaller student-teacher ratios, a greater percentage of resources allocated for K-12 student support, a larger percentage of revenue from state sources, and a smaller percentage of funding from local sources. The strategic leveraging of revenues to support K-12 education suggests that "education mayors" focus on the broader—and often necessary—conditions that support teaching and learning. Consequently, several mayoral-led districts showed academic improvement over time.

- Over the past decade, mayoral-control school districts have generally improved districtwide performance relative to average school district performance statewide. Understandably, this improvement varies across districts, and it is somewhat uneven by grade and subject matter.

- There were 11 districts that were governed by some degree of mayoral leadership toward the end period of our database on state assessment results. Among these 11 districts, five made substantial improvement in narrowing the student achievement gap within their states. These districts include New York; New Haven, *Connecticut;* Chicago; Philadelphia; and Baltimore. Four districts—Hartford, *Connecticut;* Harrisburg, Pennsylvania; Boston; and Providence, Rhode Island—showed progress on some academic measures.

- Mayoral control in New York City appears to have had significant positive effects on both fourth- and eighth-grade student achievement. African American and Latino students benefited academically from mayoral control in New York City. The improvement rate ranged from between 1 percent to 3 percent annually. A 1 percent annual increase in student proficiency rates

among New York City's fourth graders, for example, would increase achievement for nearly 2,000 students.

- In Boston and Chicago, achievement improvement was strong during the initial period of mayoral governance, but there has been a relative tapering of performance in recent years.

While they are not addressed specifically in this report, our findings suggest several policy implications for broadening the positive effects of mayoral governance on student achievement and financial and management outcomes. In studying successful mayoral governance, we made the following observations:

- **Mayoral governance is most effective when the mayor is ready to act.** To turn around a low- performing district, an education mayor is necessary, but the mere presence of one is not sufficient. A mayor must be ready to act to overcome barriers to school improvement. Granting a mayor the opportunity to be in charge of a district is only the beginning. The mayor has to be an active education mayor, consistently leveraging resources and mobilizing stakeholders strategically to facilitate a supportive policy environment in public education.

- **A city must adapt, not adopt.** Cities considering mayoral governance should adapt mayoral control to their unique local context. A thorough assessment of local challenges must be used to guide the design of mayoral governance. Given the variation in local cultures and politics, cities considering mayoral control must plan strategically and engage collectively to make sure that mayoral leadership will contribute to a stronger system of accountability. Education mayors need to form specific coalitions with key stakeholders in their communities to raise school performance.

- **Mayoral control may require reinvention.** Once established, mayoral governance cannot simply rely on early success. Clearly, we need to learn from cities that continued to show academic gains over time. Without reinvention, mayoral control may stall in its ability to generate growth in student achievement. Our study suggests that even if mayoral control is initially successful, that success may be time bound. Reinventing mayoral control—whether through new leadership or new governance practices—seems necessary to reinvigorating student-achievement gains.

- **Diverse providers and charter schools should be involved.** The future of mayoral control will—and ought to—involve the authorization of diverse providers and charter schools. Because of entrenched state politics, it seems unlikely that a large number of states will expand mayoral control to their big-city school districts in the near future. Given this likelihood, mayors may be best served by finding alternative ways to enhance their city's public schools. One promising approach is the use of charter schools such as the mayoral authorization of charter schools in Indianapolis.[2] The implementation of this type of portfolio management—whereby districts in cities such as New York, Chicago, and Philadelphia contract with a diverse set of school providers to operate more autonomous schools that are subsequently held accountable for student achievement—may provide new perspective on mayoral leadership and the use of diverse providers.

Let's examine in greater detail the mayoral-governance landscape, including the outcomes and challenges of this promising approach to school improvement and students' academic achievement.

# Mayoral governance as institutional redesign

Speaking before a gathering of mayors and superintendents in March 2009, U.S. Secretary of Education Arne Duncan urged the city chief executives assembled to assume greater responsibility for improving public education.[3] He took the position that mayors can provide steady and strong leadership to raise school performance in urban schools. Secretary Duncan's remarks, however, have received a cautious response from mayors across urban America, for perhaps several reasons.

First, public sentiment on mayoral leadership in public education remains mixed. According to a 2006 Gallup poll of the general voting public—which includes parents—only 29 percent of the respondents were in favor of mayoral leadership in schools. In 2007 that number jumped to 39 percent, and 42 percent of parents are now in favor of mayoral leadership in schools.[4] The increase is possibly due to media attention and mayoral actions promoting school reform in large cities such as New York and Chicago. Despite the rise in support for increased mayoral involvement, however, a slight majority of voters remain opposed to mayor-controlled schools.

Second, district and city boundaries are not coterminous in many local jurisdictions. Building a coalition that involves multiple cities and/or districts tends to complicate the reform process. When city boundaries and district boundaries do not overlap, there are multiple mayors and multiple school boards that need to be persuaded to agree on a common governance structure over multiple existing jurisdictions.

Third, there are political risks in launching such a major institutional redesign, particularly in an area where the public equates local control with independently elected school boards. Mayoral leadership of schools requires some degree of centralization, which is often seen as an undermining of community engagement in local schools.

Fourth, most urban mayors choose to work within the traditional school-governance structure, depending on the elected school board to support their education agenda. While some mayors may focus on increased learning time, others are

more concerned with making sure that schools are free from gang violence and the detrimental effects of neighborhood decline. Still other mayors are working informally to diversify the pool of school providers such as charter schools. Taken as a whole, mayoral governance occurs only when a mayor is willing to take the extraordinary steps necessary to overcome the institutional inertia of his or her city's school district.

Despite barriers and disincentives to mayoral involvement in the current system of K-12 school governance—which we discuss in detail below—there are a growing number of mayors taking on this enormous challenge. Mayoral accountability is one of very few major education reforms that aim to bring a coherent governance structure to our highly fragmented urban school system.

A primary feature of mayoral governance is that it holds mayors accountable for school performance in all areas—academic, fiscal, operational, and managerial. Mayoral governance as an institutional redesign puts the education system and accountability for its performance—particularly academic achievement—at the municipal level. In terms of school performance, therefore, the buck stops with the education mayor.

For too long and in too many large urban school districts, governance has constituted a structural barrier for academic and management improvement. Many urban districts are exceedingly ungovernable, with fragmented centers of power that tend to look after the interests of their own specific constituencies. Consequently, the independently elected school board has limited leverage to advance collective priorities, and the school superintendent lacks the institutional capacity to manage entrenched interests that are preserved by regulations and union contracts. Mayoral accountability aims to address these governing challenges in urban districts.

Mayor-led districts are not insulated from the city's social, civic, and economic sectors. As is the case in these other sectors, an education mayor identifies public education as a core component in improving the city's quality of life and long-term economic growth. The education mayor also expands both formal and informal learning opportunities for school children through multiple partnerships with the city's cultural and civic organizations and institutions. Aside from these functional benefits, mayors, like any elected politicians, are keenly interested in leaving behind an institutional legacy. Fixing dysfunctional schools and building the district's capacity enables mayors to advance long-term strategic goals. In other words, an education mayor is not assuming the role of school district leader simply as a way

to win votes and re-election—a way in which all elected politicians are expected to behave—but also as an opportunity to be an institution builder.

## Variations of mayoral governance

Mayoral governance as a systemwide strategy to raise urban school performance began roughly two decades ago, when then-Mayor of Boston Raymond Flynn (D) gained control over the school district in 1992. An earlier attempt to change school governance in Boston during the 1980s would have turned the elected school board into a hybrid of elected and appointed school board members, but it was not endorsed by voters. In 1990 Boston's city council approved a petition that requested that the state grant mayoral appointment of school board members. Boston was soon followed by Chicago, where in 1995 Illinois legislation enabled the mayor to appoint both the school board and the chief executive officer of the school system. Over the past 20 years, mayoral governance has been featured prominently in almost 20 urban school systems across the country, as suggested in Table 1.

**TABLE 1**

**Mayors and urban schools: Governance designs that include some degree of formal mayoral control of public schools**

| City | Start | End | Features of mayoral governance |
|---|---|---|---|
| Boston, MA | 1992 | - | Mayor appoints the seven members of school committee from a list of candidates recommended by a 13-member citizens nominating panel |
| Chicago, IL | 1995 | - | Mayor appoints CEO, and the seven members of the Board of Education |
| Baltimore, MD | 1997 | - | Mayor and governor jointly appoint the nine members of school board from a list of qualified individuals submitted by the State Board of Education |
| Cleveland, OH | 1998 | - | Mayor appoints the nine members of school board from a slate of nominees selected by a local nominating panel |
| Detroit, MI [a] | 1999 | 2004 | For four years, mayor appointed six of seven school board members (the seventh member was the state superintendent of public instruction) |
| Oakland, CA [b] | 2000 | 2004 | For four years, school board was expanded from seven to 10, with three new board members appointed by the mayor. |

| City | Start | End | Features of mayoral governance |
|---|---|---|---|
| Harrisburg, PA [c] | 2000 | 2010 | Mayor appointed the five members of the school board. |
| Washington, D.C. | 2007 | 2012 | Mayor has governance authority previously held by D.C. Board of Education, but city council retains budgetary oversight |
| Philadelphia, PA | 2001 | - | Mayor appoints two of the five members of the School Reform Commission (Governor appoints the other three members) |
| Indianapolis, IN | 2001 | - | Mayor has authority to create charter schools |
| New York, NY | 2002 | 2015 | Mayor appoints Schools Chancellor, and eight of 13 members of the Panel for Educational Policy (borough presidents appoint the rest) |
| Hartford, CT | 2005 | - | Mayor appoints five of nine Board of Education members, including president of the board (other four members are elected) |
| Los Angeles, CA | 2008 | 2013 | Memo of Understanding with Los Angeles Unified School District, or LAUSD, allows mayoral-led "Partnership for Los Angeles Schools" to directly and independently manage 10 schools in LAUSD |
| New Haven, CT | Pre-1990 | - | Mayor serves on Board of Education, and appoints the seven additional members of the board |
| Providence, RI | Pre-1990 | - | Mayor appoints the nine member school board, from a slate of candidates developed by the Providence School Board Nominating Commission |
| State of Rhode Island | 2008 | - | Mayors, acting by or through a nonprofit organization, can create "Mayoral Academy" charter schools |
| Trenton, NJ | Pre-1990 | - | Mayor appoints the nine member Board of Education |
| Yonkers, NY | Pre-1990 | - | Mayor appoints the nine member Board of Education |

**Notes:** In addition to the districts in this table, the St. Louis Public Schools are under the oversight of a three-member Special Administrative Board, with one member appointed by the mayor, one by the governor, and one by the president of the St. Louis Board of Aldermen. In Jackson, Mississippi, the mayor appoints the five-member board of trustees but must have the confirmation of the city council. There are also a few smaller districts across the country where the school board has for many years been appointed by local governing bodies such as the county commissioner, city council, and in some cases, the mayor. **a.** Detroit residents voted in a 2004 referendum to return to an elected school board. The state superintendent was required, by law, to serve on the school board for five years, and then the mayor would appoint all seven members. **b.** The amendment to the Oakland City Charter which introduced this governance change expired in 2004. **c.** Harrisburg returned to an elected school board in July 2010.

TABLE 2

## Complete and mixed models of mayoral governance: selected city examples in 2013

| District | Mayor appoints majority of board? | Mayor appoints all of board? | Mayor has full appointive power? |
|---|---|---|---|
| Complete Governance | | | |
| Boston | Yes | Yes | No – nominating process |
| Chicago | Yes | Yes | Yes |
| Cleveland | Yes | Yes | No – nominating process |
| Hartford | Yes | Yes | Yes |
| New Haven | Yes | Yes | Yes |
| New York | Yes | No | Yes |
| Providence | Yes | Yes | No - nominating process and city council approval |
| Wash. DC | Full mayoral authority | | |
| Mixed Models | | | |
| Baltimore | Joint appointment with governor | | |
| Philadelphia | Joint appointment with governor | | |

To be sure, local context matters. There are therefore variations in mayoral governance. Several districts have a high degree of mayoral accountability. In Boston; Chicago; Cleveland, Ohio; Hartford, Connecticut; New Haven, Connecticut; New York City; Providence, Rhode Island; Trenton, New Jersey; and Yonkers, New York, the mayor appoints either the entire school board or the majority of its members. In Chicago and New York, the mayor also appoints the schools' chief executive. This is also the case in the District of Columbia.

Baltimore and Philadelphia are examples of shared governance, in which the state governor and the city mayor jointly appoint members of the local school board. Meanwhile, the cities of Los Angeles and Indianapolis illustrate yet another set of arrangements. In Los Angeles, the mayor manages 40 feeder elementary and high schools, following an agreement with the Partnership for Los Angeles Schools in August 2007. In Indianapolis, the mayor's office authorizes and monitors the city's charter schools, which offer an alternative to the city's traditional public schools.

Other new arrangements for mayoral leadership are emerging as well, such as the mayoral academies in Rhode Island. These are public charter schools sponsored by mayors and overseen by a single nonprofit organization—the Rhode Island Mayoral Academies—that target the urban communities within the state. Such

a structure of charter schools is likely to gain growing public support, as many traditional urban public schools continue to struggle with academic progress. In Detroit and Harrisburg, Pennsylvania, the state initially replaced an elected school board with an appointed board, only to return to an elected board after the schools failed to show much academic improvement under the appointed boards.

In 2000 voters in Oakland revised the city charter to allow the mayor to appoint three of the 10 members to the school board. Fiscal crisis in Oakland, however, prompted the state to take over the entire district until just recently. The school district has now returned to locally elected school board. As a former president for the elected school board, current Oakland Mayor Jean Quan (D) is fully committed to public education.

Finally, institutional checks and balances vary across cities and determine a mayor's influence over schools. The District of Columbia city council, for example, maintains strong budgetary oversight over its schools. Boston, Cleveland, and Providence have instituted a school board nominating process, which recommends qualified candidates for mayoral selection. In these three cities, citizens are either appointed or elected to serve on the nominating commission that in turn is tasked with the recruitment and creation of a qualified pool of candidates for mayoral selection. In Providence, the city council also has the authority to approve or reject the mayor's selections.

## Strategic management of resources

School governance redesign can enable the education mayor to become more strategic in generating revenues and managing resources. In the 2007 book *The Education Mayor: Improving America's Schools*, written by the authors of this report, an analysis of school-district finance and staffing patterns from 1992 to 2003 was conducted, revealing that mayor-led districts were not spending more money when compared to other school districts.[5] These mayor-led districts, however, were spending differently over time, reallocating financial resources to instruction and instructional support. These districts were able to reduce the level of spending on general administration, as well as the percentage of expenditures on general administration.

In regard to management efficiency and fiscal discipline, districts under mayoral control have generally improved their school system's bond ratings over time, streamlined central bureaucracy by shifting staffing resources to supporting schools, and maintained labor peace. In addition, there was an absence of teachers' strikes in

mayoral-control systems from 1992 to 2003.[6] Indeed, labor peace has continued up to the present, with the notable exception of the 2012 teachers' strike in Chicago.

Moreover, mayors are facilitating strategic partnerships among key stakeholders to improve efficient management of school districts. Education mayors seem to have the ability to leverage cooperation—and occasionally even concessions—from school employees' unions. In Chicago, for example, the city's mayoral-led school system has historically enjoyed a functional partnership with the teachers' union. After gaining control over the school system in 1995, then-Mayor Richard M. Daley played a key role in shoring up the support of the Chicago Teachers Union for district reform.[7] Through negotiations, Mayor Daley was able to secure a contract, granting the union's requests for a 3 percent annual raise. The contract effectively avoided conflict over the issue of increased teacher accountability and school closings.[8] Despite the ramifications for teachers—including layoffs throughout the district—the union avoided criticizing the mayor.[9] This working relationship between the mayor and the teachers' union made possible several significant reform initiatives, including the growth of contracted schools and the closing of traditional public schools.

Likewise, in New Haven, Connecticut, Mayor John DeStefano (D) spearheaded a school-reform movement in collaboration with the New Haven Teachers Union. The 2009 contract agreement reached with the union champions teacher evaluation based on student performance complemented by targeted reform efforts for failing schools.[10] In return for union concessions on school turnaround initiatives, DeStefano raised teacher salaries by as much as 10 percent.[11]

When Providence was faced with an imminent budget crisis in 2011, Mayor Angel Taveras (D) temporarily fired all of the city's teachers and then hired most of them back before the termination took effect when the new school year started.[12] Within a year of the mass firings and subsequent rehirings, the city had revived its historically strong district-union partnership. The working relationship between the city and its teachers has been facilitated by both a highly popular mayor—the first Latino mayor in the history of Providence—and a union leadership that is willing to explore new practices to improve school performance. To underscore the strength of the renewed partnership, beginning in 2012 the Providence Teachers Union and the district worked together to create a nonprofit education-management organization, United Providence, or UP!, to turnaround three failing city schools. UP! is founded on the principle of the "reciprocal obligations" of labor and management.[13] This undertaking may give new meaning to shared governance and joint responsibility at the school level.

Finally, in 2012 Cleveland Mayor Frank Jackson (D) compromised with the Cleveland Teachers Union in order to pass legislation that would improve the struggling district schools. Both the union representatives and Mayor Jackson were willing to make serious concessions in order to best serve the students. The union agreed to use teacher evaluations as the major component when determining layoffs, rather than seniority. In turn, the mayor changed his stance to turning around failing schools: Rather than dismissing all of the teachers, as was originally proposed, the district will now collaborate with the union to make the changes necessary to improve schools.[14] This new contract negotiation has paved the way for reform. In July 2012 Ohio Gov. John Kasich (R) signed off on the bill to revamp how teachers are hired, fired, and paid.[15] This hallmark state, district, and union collaboration will link student performance with teacher pay.

Before turning to the experiences of specific school districts, it is helpful to understand the methodology we used to arrive at our findings.

In this report, we have updated our analysis of finance and staffing patterns in mayor-led districts, and a discussion of those findings follows. Where our 2007 analysis focused only on a sample of the nation's largest 104 central-city districts, the updated analysis examines all local school districts in the United States.[16] The current analysis includes the more than 14,000 school districts in the database and more than 160,000 "district-year" observations, for which we have access to quantifiable measures of interest for specific districts in a given year during the period of 1992 through 2007. The most recent analysis controls for whether the district served a central city; its overall enrollment; its percentage of special-education students and students eligible for free or reduced-priced lunch; and its percentage of black and Latino students.

The financial-outcome data was prepared using raw files from the U.S. Census Bureau's *Annual Survey of Government Finances*. The *Annual Survey of Government Finances* gathers data on revenues, expenditures, and debt from more than15,000 school districts. In our 2007 book, *The Education Mayor*, we used financial data through the 2002-03 academic year. In our current analysis, we use financial data through the 2006-07 academic year.

Caution must be taken in interpreting the results of the analysis for at least two reasons. First, it is not entirely clear that the data—despite being the only available data for reliable, national cross-district analysis—fully capture the essence of staffing and financial management strategies under mayoral control. If mayors are changing personnel quality but not quantity in a particular category, for instance, our statistical analysis would not account for it. If mayoral regimes are spending the same amounts of money, but just spending it on better programs, our data

would not show this. A second concern relates to the always-present issue of correlation vs. causation. Our data suggest significant correlations between mayoral control and certain staffing and financial outcomes, but we cannot necessarily conclude that mayoral control was the primary cause of these outcomes. These necessary caveats aside, however, the data provide interesting evidence on the relationship between mayoral control and management outcomes.

Our updated statistical analysis of the 1992–2007 data is summarized in Figure 1, and several key descriptive findings in the 2006–2007 data are highlighted in Table 3 through Table 5 below.

First, the education mayor is effective in generating current revenues to support K-12 education. Mayoral-led districts raise a higher level of current revenue in public education on a per-pupil basis compared to other districts. As Table 3 suggests, per-pupil total revenue in 2007 in mayoral-control districts averaged $17,506. Other urban districts with similar socioeconomic characteristics had total revenue of $10,680 per pupil—a difference of 68 percent. The higher total current revenue in mayoral-control districts was substantially due to state and federal contributions. As a percentage, contributions to K-12 education from local taxes in mayoral-control districts remained largely comparable to those to their urban peers in 2007. Our analysis found that the percentage of revenue from state sources was statistically associated with mayoral-control districts. In 2007 these districts received almost 49 percent of their total revenue from state sources, compared to about 46 percent for the largest urban districts. (see Table 3) This 3 percent difference is not small given the size of these budgets.

**TABLE 3**

## Per-pupil revenue in 2006–2007: Mayoral control districts and comparison district groups

| | Total revenue | Federal revenue | State revenue | Local revenue |
|---|---|---|---|---|
| Mayoral control districts (10) | $17,506 | $1,870 (10.8%) | $8,528 (48.7%) | $7,108 (40.6%) |
| City districts with >30% and <15,000 students (296) | $11,510 | $1,193 (10.4%) | $5,820 (50.6%) | $4,497 (39%) |
| City districts with >30% free and reduced-price lunch and 15,000–30,000 students (96) | $10,750 | $1,120 (10.4%) | $5,769 (53.7%) | $3,860 (35.9%) |
| City districts with >30% free and reduced-price lunch and 30,000–60,000 students (67) | $11,317 | $1,271 (11.2%) | $5,724 (50.6%) | $4,321 (38.2%) |
| City districts with >30% free and reduced-price lunch and >60,000 students (32) | $10,680 | $1,145 (10.7%) | $4,878 (45.7%) | $4,657 (43.6%) |

**Note:** Mayoral control cities included Boston, Chicago, Cleveland, Harrisburg, Hartford, New Haven, New York City, Providence, Trenton, and Yonkers.

Second, the education mayor is strategic in managing resources to support the academic and social needs of the students in his or her city, a majority of whom come from predominantly disadvantaged backgrounds. There is a statistically significant positive relationship between mayoral-control districts and spending on instruction per pupil. In 2007 mayoral-control districts spent an average of $8,734 per pupil on instruction, while their peer urban districts spent only $5,165 per pupil. (see Table 4) Furthermore, the education mayor heavily invests in support services such as counselors and learning coaches to address the needs of urban students. From 2006 to 2007 mayoral-control districts spent $5,369 per pupil on support services; their large urban-district peers spent only $3,237 per pupil. (see Table 4)

TABLE 4

**Per-pupil spending in 2006–2007: Mayoral control districts and comparison district groups**

| | Instruction total | Support services | Capital projects |
|---|---|---|---|
| Mayoral control districts (10) | $8,734 | $5,369 | $2,310 |
| City districts with >30% and <15,000 students (296) | $5,842 | $3,371 | $1,200 |
| City districts with >30% free and reduced-price lunch and 15,000–30,000 students (96) | $5,523 | $3,219 | $1,159 |
| City Districts with >30% free and reduced-price lunch and 30,000–60,000 students (67) | $5,689 | $3,482 | $1,249 |
| City Districts with >30% free and reduced-price lunch and >60,000 students (32) | $5,165 | $3,237 | $1,366 |

**Note:** Mayoral control cities included Boston, Chicago, Cleveland, Harrisburg, Hartford, New Haven, New York City, Providence, Trenton, and Yonkers.

The education mayor tends to make investments that support smaller class sizes while maintaining sufficient administrative capacity in the central office. As suggested in Figure 1, there is a statistically significant positive relationship between mayoral control and smaller student-teacher ratios.

FIGURE 1

## Summary of statistically significant relationships between staffing and district finance indicators and mayoral control

| District | Significant Effect? | |
|---|---|---|
| % Aides (of all staff) | Yes | * |
| % Central Office (of all staff) | Yes | ** |
| % of Revenue from Federal | No | |
| % of Revenue from Local | Yes | *** |
| % of Revenue from State | Yes | *** |
| % Teachers (of all staff) | No | |
| % Total Spending on Capital Outlay | Yes | ** |
| % Total Spending on Instruction | No | |
| % Total Spending on Non-K-12 | Yes | * |
| % Total Spending on Student Services | No | |
| Federal Revenue per student | Yes | ** |
| Fiscal Health | No | |
| Local Revenue per student | No | |
| Per Student Spending on Capital Outlay | Yes | ** |
| Per Student Spending on Instruction | Yes | *** |
| Per Student Spending on Non-K-12 | No | |
| Per Student Spending on Student Services | Yes | ** |
| State Revenue per student | Yes | *** |
| Student/Central Office Ratio | No | |
| Student/Teacher Ratio | Yes | ** |
| **Total Revenue per student** | **Yes** | *** |

Notes: Data sources for the analysis are various years of the Common Core of Data and the Annual Survey of Government Finances conducted by the United States Bureau of the Census.

The investments in small class sizes are consistent with the finding that education mayors focus on instructional capacity. In 2007 the student to teacher ratio in mayoral-control districts averaged 14.9 students for every 1 teacher, compared to an average ratio of more than 16 students per teacher found across all types of urban districts. (see Table 5) Consequently, teachers make up a larger proportion of school staff in mayoral-controlled districts than they do in similar urban districts: Teachers make up 60 percent of the staff in mayoral-controlled districts and 45 percent of the staff in the largest urban districts. At the same time, mayoral-controlled districts maintain an administrative capacity without employing an excessive central-office staff. As suggested in Table 5, central-office staff accounted for less than 6 percent of the total staff in mayoral-controlled districts, lower than the 8.3 percent in the largest urban districts.

TABLE 5

## Staffing patterns in 2006–2007: Mayoral control districts and comparison district groups

| | Teachers as percentage of total staff | Student-teacher ratio | Central office staff as percentage of total staff |
|---|---|---|---|
| Mayoral control districts (10) | 59.6 | 14.9 | 5.6 |
| City districts with >30% and <15,000 students (296) | 54.7 | 16.2 | 3.5 |
| City districts with >30% free and reduced-price lunch and 15,000–30,000 students (96) | 54.1 | 16.6 | 3.5 |
| City Districts with >30% free and reduced-price lunch and 30,000–60,000 students (67) | 53.0 | 16.3 | 4.3 |
| City Districts with >30% free and reduced-price lunch and >60,000 students (32) | 44.7 | 16.4 | 8.3 |

**Note:** Mayoral control cities included Boston, Chicago, Cleveland, Harrisburg, Hartford, New Haven, New York City, Providence, Trenton, and Yonkers.

Finally, the education mayor invests in capital-improvement projects without putting undue burden on the local tax base. In 2007, for example, mayoral-control districts spent an average of $2,310 per pupil on capital-improvement projects; their urban-district peers, by comparison, spent on $1,366 per pupil. (see Table 4) At the same time—as shown in Table 3—local taxes as a source of total revenue in mayoral-led districts was lower than that of their largest urban-district peers.

In short, these updated findings are largely consistent with the strategic practices in *The Education Mayor*. In their effort to maintain their competitive edge, mayors are cautious about raising local taxes and expanding the district central office. Instead, education mayors are keen on leveraging intergovernmental resources to support local schools. Mayors prioritize the use of resources from all sources in support of a stronger instructional system. These strategic actions aim at raising student performance—the issue that we turn to next.

# Mayoral accountability improves student achievement

When mayors govern urban districts, do they make a difference in student performance? Are mayoral-led districts closing the achievement gap? Do racial minorities and other subgroups improve their academic achievement in mayoral control districts? These questions are central to the current debate on mayoral control.

Clearly, governance change that replaces an elected school board with a mayoral-appointed board is not a silver bullet. Students who are not meeting the academic standards may face enormous structural challenges, including poverty and educational disabilities. The office of the mayor is one among several key local entities that must work together to raise student performance. In this section, we examine the relationship between mayoral control and student achievement. Along with presenting our findings, we discuss the research methods that we used to examine this critical issue.

## First wave of statistical findings on student achievement

In *The Education Mayor*, our research team completed a comprehensive empirical analysis on the effects of mayoral control on student outcomes and management performance.[17] The study examined 104 big-city school systems located across 40 states—including 12 that were under mayoral control—and we synthesized standardized achievement data from thousands of schools from between 1999 and 2003. The study examined multiple years of data by using a mixed-methods approach, applying statistical models and conducting in-depth case studies that connected the macro-level policy conditions to the micro-level practices in a sample of urban classrooms.

In *The Education Mayor*, we examined a key question: What are the effects of mayor-led systems as a distinct type of turnaround strategy, relative to the independently elected governance structure that would have been in place otherwise? Can we generalize about the achievement effects of this reform strategy beyond a specific

setting? In our analysis of a U.S. Department of Education longitudinal school-achievement database of more than 100 urban districts, we found that mayor-led school systems are positively related to standardized elementary reading and math achievement—even after statistically controlling for previous achievement and a host of demographic background variables. The results of our statistical analysis suggest that if a district moved from an elected board to a board in which a majority of its members are appointed by the mayor, that school district would see a narrowing of the state-district achievement gap in core subjects.[18] While not likely to move the district above the state mean in the short run, these improvements are nonetheless significant. Since only a few mayors directly appointed the chief executive officer for the school system, our study did not conduct a separate statistical analysis on this arrangement. Nonetheless, case studies have suggested the effectiveness of mayoral-appointed school chief executive officers in Chicago, New York City, and Boston.[19]

A promising contribution of mayoral accountability lies in the academic improvement of the district's lowest-performing schools—such as schools making up the lowest 25th percentile schools—which often seek to educate large numbers of poor and minority pupils. Despite these challenges, the lowest-25th-percentile schools in mayor-controlled districts showed steady progress in the percentage of students who tested proficient on their state's annual benchmarking grade assessments between 1999 and 2003. The percent of students who scored proficient or better in third-grade reading among the lowest-25th-percentile schools in Baltimore, for example, improved from 5.6 percent to 32.7 percent. In Chicago's lowest-performing schools, the percent proficient in fifth-grade math improved from 10.4 percent to 27.5 percent.

But mayoral control, as our 1999–2003 data suggests, seemed ineffective in narrowing the achievement gap between schools in the highest 25th percentile and the lowest 25th percentile. This gap does not mean that the lowest-performing schools did not improve—rather, the pace of their improvement, at the aggregate, was not rapid enough to close the gap between them and the top-performing schools. Furthermore, an absence of checks and balances such as a school-board nominating commission appeared to negatively affect student performance between 1999 and 2003.

## District-level trends in student achievement, 1999–2010

In our updated analysis, we examine two sets of student-achievement data. First, we consider the trend data for districts that were under mayoral control for all or some of the years from 1999 to 2010. We made use of both the state-assessment

data and, for some of the districts, the National Assessment of Educational Progress scores over time. Second, we examine all of the schools in three key states—Illinois, Massachusetts, and New York—over the same period. We also disaggregate the analysis into grade levels, which gives us more variation.

## Mayoral accountability narrows the district-state achievement gap

This section reviews the district-level trends in student achievement. We analyze the districts that have enacted a formal governance change over the past 12 years, allowing the mayor direct control of at least some of the schools. These data—presented in Tables 6 and 7—allow us to examine both district trends over time and to compare district trends to statewide trends. We are limited, of course, to those metrics that were measured by each state throughout this period. Because testing regimes change (for example, changing which grades are tested) such time series—assessments of the same subjects and grade levels based on the same common metrics over time—are not as frequent as we would like them to be. In making comparisons with the statewide average, we fully recognize that the largely urban mayoral-control districts must educate students who face, on average, greater needs than their peers elsewhere in the state. We explicitly control for this variation in student demographics in the more robust statistical analysis that follows.

As districts under mayoral control improved student achievement over the years, they narrowed the district-state achievement gap. In the early 2000s districts under mayoral control showed a substantial gap in both reading and math performance when compared to the state average. (see Table 7) This substantial gap, however, was narrowed between the base year—either 1999 or early 2000—and the end year—2010. Table 7 summarizes the percentage-point differences between mayoral-led districts and the statewide averages in the percentage of students who scored at or above the proficiency level in math and reading in various grades at the base year and end year. Of the 50 analyzed measures of achievement on state standardized assessments, mayoral districts narrowed the gap with the state in 33 achievement measures. These measures include the performances for each grade and subject for the years analyzed.

**TABLE 6**

## District Level Achievement in Mayoral Control School Districts, 1999–2010

| District | Subject | Grade | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boston: Percentage of students scoring proficient or better on the Massachusetts Comprehensive Assessment System (MCAS) | | | | | | | | | | | | | | |
| Boston | ELA | 4th | 5 | 6 | 24 | 24 | 27 | 30 | 25 | 26 | 31 | 25 | 30 | 30 |
| Boston | ELA | 8th | 34 | 36 | 42 | * | * | * | * | 54 | 55 | 57 | 59 | 58 |
| Boston | ELA | 10th | 19 | 22 | 31 | 35 | 36 | 38 | 38 | 51 | 50 | 58 | 64 | 60 |
| Boston | Math | 4th | 14 | 14 | 14 | 15 | 16 | 22 | 21 | 26 | 27 | 30 | 27 | 28 |
| Boston | Math | 8th | 17 | 15 | 20 | 19 | 20 | 24 | 23 | 23 | 27 | 34 | 28 | 34 |
| Boston | Math | 10th | 15 | 22 | 20 | 24 | 36 | 42 | 39 | 53 | 55 | 59 | 62 | 60 |
| Chicago: Percentage of students that "meet or exceed" performance goals on the Illinois Standards Achievement Test (ISAT) | | | | | | | | | | | | | | |
| Chicago | ELA | 5th | 37 | 33 | 34 | 37 | 39 | 43 | 43 | 50 | 53 | 56 | 58 | 60 |
| Chicago | ELA | 8th | 56 | 57 | 48 | 55 | 51 | 55 | 59 | 72 | 78 | 75 | 78 | 78 |
| Chicago | ELA | 11th | * | * | 36 | 37 | 36 | 36 | 41 | 39 | 35 | 30 | 34 | 33 |
| Chicago | Math | 5th | 53 | 28 | 32 | 36 | 44 | 51 | 50 | 58 | 65 | 66 | 69 | 72 |
| Chicago | Math | 8th | 18 | 20 | 25 | 31 | 31 | 33 | 32 | 65 | 71 | 69 | 73 | 77 |
| Chicago | Math | 11th | * | * | 26 | 27 | 27 | 28 | 28 | 31 | 29 | 28 | 27 | 29 |
| Cleveland: Percentage of students at and above proficient (passing) the Ohio Achievement Assessments | | | | | | | | | | | | | | |
| Cleveland | ELA | 4th | 23 | 34 | 33 | 40 | 59 | 55 | 59 | 51 | 60 | 55 | 54 | 56 |
| Cleveland | Math | 4th | 22 | 34 | 38 | 49 | 50 | 54 | 53 | 48 | 52 | 43 | 43 | 46 |
| New York: Percentage of students at or above level 3 on the New York State assessments | | | | | | | | | | | | | | |
| New York City | ELA | 4th | 33 | 42 | 44 | 47 | 52 | 50 | 60 | 59 | 56 | 61 | 69 | 46 |
| New York City | ELA | 8th | 35 | 33 | 33 | 30 | 33 | 36 | 33 | 37 | 42 | 43 | 57 | 38 |
| New York City | Math | 4th | 50 | 46 | 52 | 52 | 67 | 68 | 77 | 71 | 74 | 80 | 85 | 58 |
| New York City | Math | 8th | 23 | 22 | 23 | 30 | 34 | 42 | 41 | 39 | 46 | 60 | 71 | 46 |
| New Haven: Percentage of students that met the state goal on the Connecticut Mastery Tests | | | | | | | | | | | | | | |
| New Haven | ELA | 4th | * | 21 | 19 | 22 | 24 | 21 | 22 | 20 | 28 | 30 | 30 | 34 |
| New Haven | ELA | 8th | * | 29 | 29 | 31 | 31 | 33 | 36 | 34 | 34 | 40 | 49 | 52 |
| New Haven | Math | 4th | * | 31 | 31 | 39 | 37 | 34 | 31 | 33 | 37 | 35 | 41 | 42 |
| New Haven | Math | 8th | * | 16 | 20 | 23 | 19 | 22 | 25 | 27 | 34 | 34 | 41 | 41 |
| Hartford: Percentage of students that met the state goal on the Connecticut Mastery Tests | | | | | | | | | | | | | | |
| Hartford | ELA | 4th | * | 17 | 17 | 17 | 20 | 15 | 18 | 14 | 17 | 21 | 20 | 29 |
| Hartford | ELA | 8th | * | 30 | 32 | 35 | 35 | 31 | 32 | 32 | 28 | 34 | 45 | 44 |
| Hartford | Math | 4th | * | 28 | 29 | 29 | 27 | 23 | 22 | 18 | 24 | 26 | 28 | 32 |
| Hartford | Math | 8th | * | 24 | 25 | 25 | 23 | 20 | 19 | 23 | 22 | 24 | 33 | 32 |

| District | Subject | Grade | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Providence: Percentage of students scoring proficient or better on the New England Common Assessment Program (NECAP) | | | | | | | | | | | | | | |
| Providence | ELA | 4th | 64 | 54 | 43 | 47 | 37 | 45 | * | 31 | 39 | 37 | 44 | 46 |
| Providence | ELA | 8th | 30 | 24 | 25 | 22 | 19 | 29 | * | 24 | 34 | 37 | 45 | 45 |
| Providence | Math | 4th | 32 | 31 | 30 | 34 | 19 | 28 | * | 25 | 32 | 26 | 36 | 42 |
| Providence | Math | 8th | 37 | 25 | 13 | 18 | 11 | 13 | * | 20 | 25 | 25 | 38 | 26 |
| Yonkers: Percentage at or above level 3 on the New York State assessments | | | | | | | | | | | | | | |
| Yonkers | ELA | 4th | 48 | 53 | 53 | 59 | 63 | 65 | 77 | 69 | 55 | 64 | 68 | 45 |
| Yonkers | ELA | 8th | 30 | 27 | 28 | 22 | 30 | 28 | 30 | 32 | 35 | 38 | 51 | 30 |
| Yonkers | Math | 4th | 54 | 55 | 57 | 59 | 75 | 77 | 87 | 77 | 63 | 77 | 80 | 49 |
| Yonkers | Math | 8th | 13 | 14 | 16 | 21 | 29 | 39 | 39 | 31 | 32 | 42 | 54 | 28 |
| Harrisburg: Percentage of students proficient or better on the Pennsylvania System of School Assessment | | | | | | | | | | | | | | |
| Harrisburg | ELA | 5th | * | * | 18 | 18 | 21 | 27 | 21 | 18 | 17 | 16 | 20 | 24 |
| Harrisburg | ELA | 8th | * | * | 23 | 19 | 26 | 30 | 27 | 25 | 34 | 38 | 47 | 46 |
| Harrisburg | ELA | 11th | * | * | 20 | 17 | 19 | 25 | 18 | 28 | 27 | 23 | 29 | 36 |
| Harrisburg | Math | 5th | * | * | 16 | 16 | 16 | 19 | 18 | 21 | 21 | 24 | 28 | 34 |
| Harrisburg | Math | 8th | * | * | 14 | 13 | 13 | 15 | 21 | 17 | 27 | 25 | 28 | 33 |
| Harrisburg | Math | 11th | * | * | 6 | 6 | 7 | 11 | 8 | 15 | 11 | 18 | 21 | 34 |
| Philadelphia: Percentage of students proficient or better on the Pennsylvania System of School Assessment | | | | | | | | | | | | | | |
| Philadelphia | ELA | 5th | * | * | 19 | 21 | 23 | 32 | 35 | 32 | 32 | 36 | 40 | 40 |
| Philadelphia | ELA | 8th | * | * | 23 | 24 | 30 | 41 | 40 | 45 | 49 | 56 | 62 | 67 |
| Philadelphia | ELA | 11th | * | * | 34 | 29 | 30 | 27 | 31 | 33 | 35 | 37 | 38 | 45 |
| Philadelphia | Math | 5th | * | * | 18 | 19 | 23 | 31 | 46 | 42 | 45 | 50 | 52 | 52 |
| Philadelphia | Math | 8th | * | * | 16 | 18 | 20 | 31 | 39 | 37 | 44 | 49 | 51 | 56 |
| Philadelphia | Math | 11th | * | * | 24 | 24 | 22 | 23 | 23 | 27 | 31 | 33 | 32 | 38 |
| Baltimore: Percentage of students scoring proficient or better on Maryland School Assessment (MSA) | | | | | | | | | | | | | | |
| Baltimore | Reading | 4th | * | * | * | * | * | 61 | 65 | 65 | 73 | 81 | 78 | 76 |
| Baltimore | Reading | 8th | * | * | * | * | 33 | 43 | 40 | 40 | 44 | 49 | 62 | 62 |
| Baltimore | Math | 4th | * | * | * | * | * | 48 | 54 | 63 | 73 | 80 | 83 | 84 |
| Baltimore | Math | 8th | * | * | * | * | 12 | 19 | 20 | 22 | 24 | 48 | 39 | 39 |

Notes: Data for this table was obtained through state department of education websites. Because of changes (in 2008 and 2009) to the statewide achievement testing system in New Jersey, the state advises against making time-trend comparisons of current achievement to pre-2008 achievement. Thus, we do not include Trenton in this table. See: **http://www.state.nj.us/education/schools/achievement/2011/**.

There were 11 districts that were governed by some degree of mayoral leadership toward the end period of our database. Detroit and Oakland are not included because they no longer had mayoral governance in 2010. Additionally, the District of Columbia is not included in this section since the school district does not have a state with which to compare itself.

Among the 11 districts, five made substantial improvement in narrowing the achievement gap with the state. These five districts were New York, New Haven, Chicago, Philadelphia, and Baltimore.

**New York:**

- Achievement rose steadily from 2002 through 2009 in both fourth-grade and eighth- grade reading and math.

- Only 47 percent of New York City's fourth graders were proficient in reading in 2002, but that number rose to 69 percent in 2009. The gains achieved in fourth-grade math during that same period were very impressive—from 52 percent proficient to 85 percent proficient.

- At the eighth-grade level, the math gains were, in a word, spectacular— the percentage of students who scored proficient or better more than doubled, leaping from 30 percent to 71 percent. For eighth-grade reading, the percentage of children who scored proficient or better rose from 30 percent to 57 percent.

- Between 1999 and 2010 New York City closed the gap with the statewide average. It should be noted that a significant change in the state's proficiency standards in 2010 yielded much lower scores throughout the state that year, including in New York City.[20]

**New Haven:**

- Schools in New Haven have experienced more significant improvement than schools in Hartford, especially since 2007.

- In 2000 only 21 percent of students were proficient in fourth-grade reading; this held steady through 2006, when it was at 20 percent. Performance began to improve in 2007, and 34 percent of students in the district met the state's goals in 2010.

- Students in the fourth grade also posted gains in math starting in 2007, and 42 percent of students met the state's goals in 2010.

- There have been similar significant gains in eighth grade. From 2007 to 2010 the percentage of eighth graders in New Haven who met the state's goals jumped from 34 percent to 52 percent in reading and from 34 percent to 41 percent in math.

**Chicago:**

- Over the past decade, the Chicago Public Schools made tremendous progress in fifth-grade reading and math on the Illinois Standards Achievement Test and the Prairie State Achievement Examination.

- At the start of the period studied, 37 percent of Chicago Public School students were proficient in reading and 53 percent were proficient in math. In 2010 60 percent of students were proficient in reading and 72 percent were proficient in math.

- Similarly, eighth-grade Chicago Public School students have demonstrated strong gains in reading; the Chicago district has closed the gap with Illinois statewide averages.

- There has been virtually no progress, however, in 11th-grade reading and math on the Prairie State Achievement Examination.

**Philadelphia:**

- The governor of Pennsylvania appoints three members to Philadelphia's School Reform Commission, and the mayor of Philadelphia appoints two members. The commission governs the Philadelphia school district.

- There has been steady progress in the percentage of students who are proficient or better across grade levels and subjects. In 2001 only 19 percent of fifth graders were proficient in reading. This proportion rose to 40 percent in 2010.

- Fifth-grade math achievement has more than doubled since 2001, when only 18 percent of students in the fifth grade were proficient. In 2010 the percentage of fifth graders proficient in math improved to 52 percent. In both fifth-grade reading and math, however, gains in the most recent years have been somewhat flat.

- Eighth-grade performance has also improved. The percentage of students scoring at a proficient level has increased from 23 percent to 67 percent in reading and from 16 percent to 56 percent in math.

- The percentage of students meeting state proficiency targets has modestly increased among students in the eleventh grade—from 34 percent to 45 percent in reading and from 24 percent to 38 percent in math.

- Especially among students in the fifth and eighth grades, Philadelphia has narrowed the district-state gap in average reading and math achievement scores.

**Baltimore:**

- Baltimore's mayor and governor jointly appoint school board members.

- Performance on the Maryland School Assessment has steadily improved since 2004.

- In fourth-grade reading, the percentage of students scoring at a proficient level rose from 61 percent in 2004 to 76 percent in 2010.

- Fourth-grade math achievement rose dramatically, from 48 percent in 2004 to 84 percent in 2010.

- Students in the eighth grade also demonstrated gains between 2004 and 2010—from 43 percent proficient to 62 percent proficient in reading, and from 19 percent proficient to 39 percent proficient in math.

- Across all subjects and grade levels, Baltimore has narrowed the district-state performance gap.

Four districts—Hartford, Harrisburg, Boston, and Providence—showed progress on some of the performance measures.

**Hartford:**

- Hartford experienced modest improvement over the decade we examined.

- Early in the period we studied, 17 percent of fourth-grade students were proficient in reading, meeting the state goal. Scores did not improve more than a few percentage points until 2010, when 29 percent of students were proficient in reading.

- Fourth-grade math performance improved only 4 percent over the entire 11 years, reaching 32 percent in 2010.

- There was slightly better progress in eighth-grade reading. The number of students meeting state goals improved from 30 percent in 2000 to 44 percent in 2010 And the proportion of eighth-grade students who met state math goals improved from 24 in 2000 to 32 percent in 2010.

**Harrisburg:**

- Performance rose slightly over the past decade, but a substantial gap with the state remained.

- The percentage of students in the fifth grade who were proficient in reading rose from 18 percent in 2001 to 24 percent in 2010. In fifth-grade math, the percent of proficient students increased from 16 percent in 2001 to 34 percent in 2010.

- The percentage of eighth-grade students who scored proficient or above rose from 23 percent in 2001 to 46 percent in 2010 in reading and from 16 percent in 2001 to 34 percent in 2010 in math.

- The percentage of 11th-grade students who scored proficient or above rose from 20 percent in 2001 to 36 percent in 2010 in reading and from 6 percent in 2001 to 34 percent in 2010 in math.

- It should be noted that Harrisburg's school board changed from a mayoral-appointed board to an elected board in 2010.

**Boston:**

- In 2000 only 6 percent of fourth graders were meeting state standards in English and language arts, or ELA; today that number is five times greater.

- Over a 10-year period the percent of fourth graders proficient in math doubled.

- There were also significant gains in eighth grade: The percent of students proficient in English language arts jumped from 36 percent to 58 percent, and the percent of students proficient in math more than doubled, jumping from 15 percent to 34 percent.

- There have also been some noteworthy gains over 10 years at the high school level, with the percent of proficient students nearly tripling in both subjects in 2010—from 22 percent to 60 percent in both ELA and math.

- Both eighth- and tenth-grade reading and math scores, however, have essentially remained flat since 2008. As a result, Boston has not quite kept up its momentum in closing the gap with statewide averages on the Massachusetts Comprehensive Assessment System.

**Providence:**

- We can only make valid comparisons for Providence schools back to 2006 due to changes that were made to Rhode Island's testing program that year. Improvements are evident, however.[21]

- Among students in the fourth grade, the number of students who are proficient in reading has risen from 31 percent in 2006 to 46 percent in 2010. We see a similar jump in fourth-grade math, from 25 percent proficient in 2006 to 42 percent proficient in 2010.

- In eighth-grade reading, the percent of students who scored proficient almost doubled between 2006 and 2010, jumping from 24 percent to 45 percent. There are slower signs of progress in math at the eighth-grade level, with the percent of proficient students rising from 20 percent to 26 percent from 2006 to 2010.

The achievement gap widened in only two districts—Yonkers and Cleveland.

**Yonkers:**

- From 1999 to 2009 the Yonkers school district saw persistent gains in fourth- and eighth-grade reading and math. At the fourth-grade level, the percent of students who scored proficient or above in reading improved from 48 percent to 68 percent. In math, it improved from 54 percent to 80 percent. At the eighth-grade level, the percent of students who scored proficient or above during the 1999–2009 period increased from 30 percent to 51 percent in reading and from 13 percent to 54 percent in math.

- These gains, however, have not kept pace with statewide progress. Consequently, the district-state gap widened between 1999 and 2010. During that period the gap in the percentage of students who were proficient in fourth-grade reading grew from 0 percent to 13 percent. The number of students who were proficient in eighth-grade reading grew from 18 percent to 21 percent.

- As in New York City, Yonkers' scores in 2010 were much lower as a result of the new, tougher proficiency standards that were enacted statewide.

**Cleveland:**

- The district posted persistent gains throughout the early 2000s in fourth-grade reading proficiency, but it has not matched that growth in more recent years. Consequently, the gap with the state has widened.

- Between 1999 and 2003 the numbers of students who scored proficient or above in fourth-grade reading and math both more than doubled—from 23 percent to 59 percent and from 22 percent to 50 percent, respectively.

- Since 2004, however, these figures have dropped slightly—to 56 percent in reading and 46 percent in math in 2010.

TABLE 7

## Mayoral Accountability Narrows the Achievement Gap with the State

| District | Subject | Grade | Base Year Gap | End Year Gap | Narrow Gap | Widen Gap |
|---|---|---|---|---|---|---|
| New York | | | 1999 | 2010 | | |
| | ELA | 4 | 15 | 11 | + | |
| | | 8 | 13 | 13 | + | |
| | Math | 4 | 17 | 8 | + | |
| | | 8 | 15 | 9 | + | |
| Yonkers | | | 1999 | 2010 | | |
| | ELA | 4 | 0 | 13 | | - |
| | | 8 | 18 | 21 | | - |
| | Math | 4 | 13 | 15 | | - |
| | | 8 | 25 | 27 | | - |
| Hartford | | | 2000 | 2010 | | |
| | ELA | 4 | 40 | 34 | + | |
| | | 8 | 36 | 31 | + | |
| | Math | 4 | 32 | 35 | | - |
| | | 8 | 31 | 35 | | - |
| New Haven | | | 2000 | 2010 | | |
| | ELA | 4 | 36 | 29 | + | |
| | | 8 | 37 | 33 | + | |
| | Math | 4 | 29 | 35 | + | |
| | | 8 | 39 | 26 | + | |
| Boston | | | 1999 | 2010 | | |
| | ELA | 4 | 16 | 24 | | - |
| | | 8 | 22 | 20 | + | |
| | | 11 | 15 | 18 | | - |
| | Math | 4 | 22 | 20 | + | |
| | | 8 | 9 | 17 | | - |
| | | 11 | 9 | 15 | | - |

| District | Subject | Grade | Base Year Gap | End Year Gap | Narrow Gap | Widen Gap |
|---|---|---|---|---|---|---|
| Providence | | | 1999 | 2010 | | |
| | ELA | 4 | 14 | 31 | | - |
| | | 8 | 27 | 26 | + | |
| | Math | 4 | 24 | 20 | + | |
| | | 8 | 14 | 29 | | - |
| Chicago | | | 2001 | 2010 | | |
| | ELA | 5 | 25 | 15 | + | |
| | | 8 | 18 | 6 | + | |
| | | 11 | 22 | 21 | + | |
| | Math | 5 | 29 | 11 | + | |
| | | 8 | 25 | 7 | + | |
| | | 11 | 28 | 24 | + | |
| Philadelphia | | | 2001 | 2010 | | |
| | ELA | 5 | 37 | 24 | + | |
| | | 8 | 37 | 15 | + | |
| | | 11 | 24 | 21 | + | |
| | Math | 5 | 35 | 22 | + | |
| | | 8 | 35 | 19 | + | |
| | | 11 | 24 | 21 | + | |
| Harrisburg | | | 2001 | 2010 | | |
| | ELA | 5 | 38 | 40 | | - |
| | | 8 | 37 | 36 | + | |
| | | 11 | 38 | 30 | + | |
| | Math | 5 | 37 | 40 | | - |
| | | 8 | 37 | 42 | | - |
| | | 11 | 42 | 25 | + | |
| Cleveland | | | 1999 | 2010 | | |
| | ELA | 4 | 24 | 25 | | - |
| | Math | 4 | 20 | 30 | | - |
| Baltimore | | | 2004 | 2010 | | |
| | Reading | 4 | 14 | 11 | + | |
| | | 8 | 21 | 18 | + | |
| | Math | 4 | 22 | 6 | + | |
| | | 8 | 27 | 26 | + | |

Note: Numbers in the table are the percentage point differences between the district and the state in the percentage of students who scored at or above the proficiency level in the state assessment test.

The "base year gap" and the "end year gap" consider the state/district achievement gap. The gap numbers denote the difference in the percentage of students meeting proficiency standards between the state and the district for specific subjects and specific grade.

Using the gap numbers between the "base year" and the "end year," we are able to determine if the district-state gap has narrowed or widened. A narrowed gap suggests that the gap in the "end year" is smaller than the gap in the "base year." A widened gap suggests that the gap in the "end year" is larger than the gap in the "base year."

Using these summative measures for the districts with mayoral governance, we found that mayor-led districts narrowed the gap with the state in 33 out of a total of 50 achievement measures.

## Mayoral accountability improved performance on the National Assessment of Educational Progress

It is not possible to compare performance on the National Assessment of Educational Progress—also known as "The Nation's Report Card"—across all mayoral-control districts and grade levels. Only several districts under mayoral control participated in the National Assessment of Educational Progress's Trial Urban District Assessment, or TUDA, and the assessment does not test all students in the benchmarking grades—grades 4, 8, and 12. The Trial Urban District Assessment, however, provides an important perspective on student performance. Tables 8-14 summarize the Trial Urban District Assessment data for seven urban districts that participated in the assessment and were under some form of mayoral control between the base year and 2011. These districts are New York City, Cleveland, Boston, Chicago, Philadelphia, Baltimore, and the District of Columbia. The tables also compare the 2011 performance of central city districts to the 2011 national average.

According to the Trial Urban District Assessment data, the seven mayoral-control districts showed progress between the base year—which varies by district, see Table 8-14—and 2011. We summarize some of these trends below.

In New York City, overall student achievement in math and reading improved in grades four and eight between 2003 and 2011, as shown in Table 8. Performance improved for various subgroups. The percentage of black students who scored proficient or better, for example, increased from 12 percent to 19 percent in fourth-grade math and from 9 percent to 12 percent in eighth-grade math. And the percentage of eighth-grade students who qualified for free or reduced-price lunch and scored proficient or above in math increased from 15 percent to 21 percent between 2003 and 2011. In reading, that number increased from 18 percent to 22 percent. When compared with other central-city districts, New York City outperformed its peers in nine out of 11 measures of academic performance in the fourth-grade and seven out of 14 measures in the eighth-grade. These measures include the overall performances and the subgroup performances for each grade and subject for each year analyzed.

**TABLE 8**

## New York City Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts

| 4th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 21 | 20 | 26 | 24 | 34 | 28 | 35 | 29 | 32 | 30 | + | + |
| | Reading | 22 | 19 | 22 | 20 | 25 | 22 | 29 | 23 | 29 | 24 | + | + |
| White | Math | 42 | 42 | 46 | 50 | 53 | 54 | 58 | 55 | 50 | 55 | + | - |
| | Reading | 45 | 39 | 36 | 40 | 45 | 44 | 49 | 47 | 51 | 47 | + | + |
| Black | Math | 12 | 8 | 14 | 11 | 20 | 13 | 21 | 14 | 19 | 16 | + | + |
| | Reading | 13 | 10 | 16 | 11 | 15 | 12 | 17 | 13 | 20 | 14 | + | + |
| Latino | Math | 13 | 13 | 18 | 17 | 26 | 21 | 24 | 21 | 22 | 23 | + | - |
| | Reading | 16 | 13 | 15 | 13 | 16 | 14 | 20 | 14 | 19 | 16 | + | + |
| Asian | Math | 47 | 47 | 60 | 49 | 65 | 57 | 68 | 58 | 57 | 52 | + | + |
| | Reading | 39 | 35 | 47 | 35 | 43 | 40 | 50 | 42 | 43 | 38 | + | + |
| ELL | Math | 13 | 7 | 11 | 10 | 5 | 12 | 7 | 11 | n/a | 14 | n/a | n/a |
| | Reading | 5 | 6 | 4 | 5 | 2 | 6 | 4 | 4 | n/a | 6 | n/a | n/a |
| Free/Reduced Price Lunch | Math | 32 | 12 | 22 | 15 | 18 | 19 | n/a | 20 | n/a | 22 | n/a | n/a |
| | Reading | 26 | 12 | 20 | 12 | 20 | 13 | 18 | 15 | 15 | 16 | - | - |

| 8th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 22 | 16 | 20 | 19 | 20 | 22 | 21 | 24 | 24 | 26 | + | - |
| | Reading | 22 | 19 | 20 | 20 | 20 | 20 | 21 | 21 | 24 | 23 | + | + |
| White | Math | 40 | 36 | 38 | 39 | 39 | 44 | 47 | 46 | 44 | 48 | + | - |
| | Reading | 42 | 37 | 38 | 38 | 41 | 39 | 41 | 42 | 38 | 43 | - | - |
| Black | Math | 9 | 5 | 10 | 7 | 10 | 9 | 12 | 10 | 12 | 13 | + | - |
| | Reading | 13 | 10 | 10 | 10 | 11 | 10 | 12 | 11 | 16 | 13 | + | + |
| Latino | Math | 15 | 10 | 12 | 11 | 14 | 13 | 14 | 16 | 12 | 19 | - | - |
| | Reading | 17 | 12 | 14 | 13 | 13 | 12 | 13 | 14 | 17 | 16 | + | + |
| Asian | Math | 38 | 33 | 50 | 40 | 53 | 44 | 64 | 52 | 57 | 49 | + | + |
| | Reading | 35 | 30 | 42 | 35 | 37 | 34 | 40 | 38 | 46 | 41 | + | + |
| ELL | Math | 4 | 4 | 2 | 4 | 1 | 4 | 3 | 4 | 2 | 5 | - | - |
| | Reading | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | - | - |
| Free/Reduced Price Lunch | Math | 15 | 9 | 18 | 11 | 19 | 14 | 23 | 15 | 21 | 18 | + | + |
| | Reading | 18 | 12 | 18 | 13 | 17 | 12 | 18 | 13 | 22 | 16 | + | + |

**Notes:** Clarifications on the two summary indicators used on the NAEP tables for individual districts:

First, the "Change" indicator is to summarize improvement (+) or lack of improvement (-) between the first year of available Trial Urban District Assessment (TUDA) data for the district and the 2001 TUDA performance for the district. For example, for New York and Cleveland, the comparison is for 2003 and 2011, while Baltimore and Philadelphia have data for 2009 and 2011.

Second, the indicator on "Above/Below City Average in 2011" considers the difference in performance between the district and the "large central city average" in 2011. In NAEP, the "large central city average" is based on the performance of students who enroll in public schools that are located in large central cities (with population 250,000 or more) within a U.S. Census Bureau-defined Core-Based Statistical Area. It is not synonymous with "inner city."

In Cleveland, overall student achievement improved in fourth-grade math, eighth-grade math, and eighth-grade reading between 2003 and 2011. (see Table 9) Improvement was seen in some of the subgroups as well. The percentage of black students who scored proficient or better in both fourth- and eighth-grade math, for example, increased from 5 percent to 6 percent. The percentage of students who qualified for free or reduced-price lunch and performed at or above proficiency rose from 10 percent to 11 percent in fourth-grade math and from 6 percent to 10 percent in eighth-grade math. The percentage of eighth-grade Latino students who scored proficient or better in math increased from 2 percent to 11 percent. At the same time, however, the percentage of black and Latino students performing at or above proficiency in reading did not improve.

TABLE 9

## Cleveland Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts

| 4th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 10 | 20 | 13 | 24 | 10 | 28 | 8 | 29 | 11 | 30 | + | - |
| | Reading | 9 | 19 | 10 | 20 | 9 | 22 | 8 | 23 | 8 | 24 | - | - |
| White | Math | 27 | 42 | 25 | 50 | 25 | 54 | 17 | 55 | 28 | 55 | + | - |
| | Reading | 17 | 39 | 17 | 40 | 22 | 44 | 17 | 47 | 18 | 47 | + | - |
| Black | Math | 5 | 8 | 8 | 11 | 5 | 13 | 5 | 14 | 6 | 16 | + | - |
| | Reading | 7 | 10 | 7 | 11 | 5 | 12 | 5 | 13 | 5 | 14 | - | - |
| Latino | Math | 14 | 13 | 18 | 17 | 10 | 21 | 13 | 21 | 11 | 23 | - | - |
| | Reading | 14 | 13 | 14 | 13 | 8 | 14 | 11 | 14 | 9 | 16 | - | - |
| Asian | Math | n/a | 47 | n/a | 49 | n/a | 57 | n/a | 58 | n/a | 52 | n/a | n/a |
| | Reading | n/a | 35 | n/a | 35 | n/a | 40 | n/a | 42 | n/a | 38 | n/a | n/a |
| ELL | Math | n/a | 7 | n/a | 10 | 6 | 12 | n/a | 11 | 8 | 14 | n/a | - |
| | Reading | n/a | 6 | n/a | 5 | n/a | 6 | n/a | 4 | 4 | 6 | n/a | - |
| Free/ Reduced Price Lunch | Math | 10 | 12 | 13 | 15 | 10 | 19 | 8 | 20 | 11 | 22 | + | - |
| | Reading | 9 | 12 | 10 | 12 | 9 | 13 | 8 | 15 | 8 | 16 | - | - |

| 8th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 6 | 16 | 6 | 19 | 7 | 22 | 8 | 24 | 10 | 26 | + | - |
| | Reading | 10 | 19 | 10 | 20 | 11 | 20 | 10 | 21 | 11 | 23 | - | - |
| White | Math | 14 | 36 | 17 | 39 | 12 | 44 | 21 | 46 | 25 | 48 | + | - |
| | Reading | 14 | 37 | 20 | 38 | 26 | 39 | 23 | 42 | 25 | 43 | + | - |
| Black | Math | 5 | 5 | 3 | 7 | 5 | 9 | 5 | 10 | 6 | 13 | + | - |
| | Reading | 8 | 10 | 8 | 10 | 7 | 10 | 7 | 11 | 7 | 13 | - | - |
| Latino | Math | 2 | 10 | 7 | 11 | 6 | 13 | 4 | 16 | 11 | 19 | + | - |
| | Reading | n/a | 12 | 10 | 13 | 16 | 12 | 11 | 14 | 9 | 16 | n/a | - |
| Asian | Math | n/a | 33 | n/a | 40 | n/a | 44 | n/a | 52 | n/a | 49 | n/a | n/a |
| | Reading | n/a | 30 | n/a | 35 | n/a | 34 | n/a | 38 | n/a | 41 | n/a | n/a |
| ELL | Math | n/a | 4 | n/a | 4 | n/a | 4 | n/a | 4 | 3 | 5 | n/a | - |
| | Reading | n/a | 2 | n/a | 3 | n/a | 2 | n/a | 2 | 2 | 2 | n/a | + |
| Free/ Reduced Price Lunch | Math | 6 | 9 | 6 | 11 | 7 | 14 | 8 | 15 | 10 | 18 | + | - |
| | Reading | 10 | 12 | 10 | 13 | 11 | 12 | 10 | 13 | 11 | 16 | + | - |

The Boston Trial Urban District Assessment data indicates that overall student achievement improved in reading and math in both the fourth and eighth grades between 2003 and 2011. (see Table 10) Improvement was seen in both subjects in the two grade levels across various subgroups. The percentage of black fourth graders who improved their math proficiency, for example, increased from 6 percent to 21 percent. In reading proficiency, the percentage rose from 11 percent to 17 percent of black fourth-grade students. The percentage of Latinos in the fourth-grade who improved their reading proficiency increased from 12 percent to 23 percent, while the percentage of fourth-grade students eligible for free or reduced-price lunch who met reading-proficiency targets increased from 13 percent to 21 percent. The percentage of eighth-grade students who were eligible for free or reduced-price lunch and scored proficient or above in math rose from 11 percent to 26 percent. Boston substantially outperformed their city-district peers across the nation on the National Assessment of Educational Progress in 13 of the 14 academic measures for fourth grade and in 12 of the 14 measures for eighth grade.

TABLE 10

**Boston Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts**

| 4th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 12 | 20 | 22 | 24 | 27 | 28 | 31 | 29 | 33 | 30 | + | + |
| | Reading | 16 | 19 | 16 | 20 | 20 | 22 | 24 | 23 | 26 | 24 | + | + |
| White | Math | 32 | 42 | 43 | 50 | 52 | 54 | 52 | 55 | 63 | 55 | + | + |
| | Reading | 37 | 39 | 40 | 40 | 42 | 44 | 46 | 47 | 57 | 47 | + | + |
| Black | Math | 6 | 8 | 13 | 11 | 18 | 13 | 23 | 14 | 21 | 16 | + | + |
| | Reading | 11 | 10 | 11 | 11 | 13 | 12 | 18 | 13 | 17 | 14 | + | + |
| Latino | Math | 7 | 13 | 14 | 17 | 23 | 21 | 24 | 21 | 26 | 23 | + | + |
| | Reading | 12 | 13 | 10 | 13 | 14 | 14 | 17 | 14 | 23 | 16 | + | + |
| Asian | Math | 43 | 47 | 65 | 49 | 61 | 57 | 65 | 58 | 69 | 52 | + | + |
| | Reading | 29 | 35 | 33 | 35 | 45 | 40 | 43 | 42 | 37 | 38 | + | - |
| ELL | Math | 10 | 7 | 19 | 10 | 24 | 12 | 25 | 11 | 27 | 14 | + | + |
| | Reading | 7 | 6 | 5 | 5 | 9 | 6 | 10 | 4 | 10 | 6 | + | + |
| Free/ Reduced Price Lunch | Math | 5 | 12 | 14 | 15 | 23 | 19 | 13 | 20 | 22 | 22 | + | + |
| | Reading | 13 | 12 | 13 | 12 | 16 | 13 | 19 | 15 | 21 | 16 | + | + |

| 8th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 17 | 16 | 23 | 19 | 27 | 22 | 31 | 24 | 34 | 26 | + | + |
| | Reading | 22 | 19 | 23 | 20 | 22 | 20 | 23 | 21 | 24 | 23 | + | + |
| White | Math | 48 | 36 | 54 | 39 | 58 | 44 | 67 | 46 | 61 | 48 | + | + |
| | Reading | 44 | 37 | 46 | 38 | 48 | 39 | 55 | 42 | 55 | 43 | + | + |
| Black | Math | 6 | 5 | 9 | 7 | 12 | 9 | 18 | 10 | 21 | 13 | + | + |
| | Reading | 14 | 10 | 13 | 10 | 16 | 10 | 14 | 11 | 14 | 13 | + | + |
| Latino | Math | 7 | 10 | 12 | 11 | 20 | 13 | 20 | 16 | 24 | 19 | + | + |
| | Reading | 14 | 12 | 16 | 13 | 10 | 12 | 13 | 14 | 15 | 16 | + | - |
| Asian | Math | 57 | 33 | 61 | 40 | 57 | 44 | 68 | 52 | 71 | 49 | + | + |
| | Reading | 44 | 30 | 55 | 35 | 46 | 34 | 45 | 38 | 50 | 41 | + | + |
| ELL | Math | 2 | 4 | 5 | 4 | 7 | 4 | 6 | 4 | 11 | 5 | + | + |
| | Reading | 1 | 2 | 2 | 3 | 1 | 2 | n/a | 2 | 3 | 2 | + | - |
| Free/ Reduced Price Lunch | Math | 11 | 9 | 17 | 11 | 21 | 14 | 23 | 15 | 26 | 18 | + | + |
| | Reading | 16 | 12 | 17 | 13 | 16 | 12 | 16 | 13 | 17 | 16 | + | + |

In Chicago, overall student achievement improved on the National Assessment of Educational Progress in reading and math in grades four and eight between 2003 and 2011. (see Table 11) Subgroup performance in reading and math in the two grade levels also improved. The percentage of Latino students who performed proficient or above, for example, increased from 10 percent to 17 percent in fourth-grade math and from 8 percent to 20 percent in eighth-grade math. The percentage of students who were eligible for free or reduced-priced lunch and performed proficient or above in reading rose from 11 percent to 14 percent for fourth graders and from 13 percent to 16 percent for eighth graders. When compared with their urban-district peers across the nation, Chicago showed mixed results. The Chicago district outperformed or equaled its peers in seven of the 14 academic measures in the fourth grade but in only two of the 14 measures in the eighth grade.

TABLE 11

## Chicago Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts

| 4th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 10 | 20 | 13 | 24 | 16 | 28 | 18 | 29 | 20 | 30 | + | - |
| | Reading | 14 | 19 | 14 | 20 | 16 | 22 | 16 | 23 | 18 | 24 | + | - |
| White | Math | 31 | 42 | 43 | 50 | 47 | 54 | 44 | 55 | 52 | 55 | + | - |
| | Reading | 37 | 39 | 39 | 40 | 40 | 44 | 41 | 47 | 44 | 47 | + | - |
| Black | Math | 4 | 8 | 6 | 11 | 8 | 13 | 9 | 14 | 13 | 16 | + | - |
| | Reading | 10 | 10 | 7 | 11 | 10 | 12 | 10 | 13 | 11 | 14 | + | - |
| Latino | Math | 10 | 13 | 13 | 17 | 16 | 21 | 18 | 21 | 17 | 23 | + | - |
| | Reading | 12 | 13 | 15 | 13 | 14 | 14 | 15 | 14 | 16 | 16 | + | + |
| Asian | Math | n/a | 47 | n/a | 49 | 53 | 57 | 63 | 58 | 50 | 52 | n/a | - |
| | Reading | n/a | 35 | n/a | 35 | 51 | 40 | 46 | 42 | 39 | 38 | n/a | + |
| ELL | Math | 3 | 7 | 3 | 10 | 6 | 12 | 7 | 11 | 8 | 14 | + | - |
| | Reading | 4 | 6 | 2 | 5 | 5 | 6 | 4 | 4 | 4 | 6 | + | - |
| Free/ Reduced Price Lunch | Math | 8 | 12 | 9 | 15 | 12 | 19 | 14 | 20 | 16 | 22 | + | - |
| | Reading | 11 | 12 | 9 | 12 | 12 | 13 | 13 | 15 | 14 | 16 | + | - |

| 8th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 9 | 16 | 11 | 19 | 13 | 22 | 15 | 24 | 20 | 26 | + | - |
| | Reading | 15 | 19 | 17 | 20 | 17 | 20 | 17 | 21 | 21 | 23 | + | - |
| White | Math | 25 | 36 | 33 | 39 | 35 | 44 | 39 | 46 | 47 | 48 | + | - |
| | Reading | 30 | 37 | 41 | 38 | 38 | 39 | 40 | 42 | 41 | 43 | + | - |
| Black | Math | 4 | 5 | 3 | 7 | 6 | 9 | 7 | 10 | 10 | 13 | + | - |
| | Reading | 10 | 10 | 10 | 10 | 9 | 10 | 11 | 11 | 13 | 13 | + | + |
| Latino | Math | 8 | 10 | 11 | 11 | 12 | 13 | 18 | 16 | 20 | 19 | + | + |
| | Reading | 15 | 12 | 16 | 13 | 20 | 12 | 17 | 14 | 21 | 16 | + | + |
| Asian | Math | 36 | 33 | 38 | 40 | n/a | 44 | 54 | 52 | 50 | 49 | + | + |
| | Reading | 35 | 30 | 44 | 35 | n/a | 34 | n/a | 38 | 38 | 41 | + | + |
| ELL | Math | 2 | 4 | 1 | 4 | 5 | 4 | 2 | 4 | 9 | 5 | + | - |
| | Reading | 4 | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 3 | 2 | - | + |
| Free/ Reduced Price Lunch | Math | 7 | 9 | 8 | 11 | 10 | 14 | 13 | 15 | 16 | 18 | + | - |
| | Reading | 13 | 12 | 14 | 13 | 14 | 12 | 13 | 13 | 16 | 16 | + | + |

In Philadelphia—a relatively new participant in the Trial Urban District Assessment—overall student achievement improved in math and reading in both the fourth and eighth grades between 2009 and 2011, as shown in Table 12. It improved in most subgroups as well. The percentage of black fourth graders who performed at or above the proficient level in math, for example, rose from 10 percent to 12 percent; it rose from 8 percent to 13 percent for black eighth-grade students. The percentage of Latino students who performed at or above the proficient level in reading increased from 5 percent to 10 percent among fourth graders and from 9 percent to 13 percent among eighth graders. But the percentage of fourth-grade students who were eligible for free or reduced-priced lunch and performed at or above proficient in math declined from 17 percent to 13 percent; it declined from 11 to 9 percent in reading. Interestingly, the percentage of eighth-grade students who qualify for free or reduced-price lunch who performed at or above proficient in math increased from 13 percent to 15 percent; in reading, the number increased from 11 percent to 13 percent. When compared with their peers across the nation, Philadelphia students did not perform as well in 13 of the 14 academic measures in the fourth grade and in 12 of the 14 measures in the eighth grade.

TABLE 12

## Philadelphia Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts

| 4th Grade | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | | |
| Overall | Math | 16 | 29 | 20 | 30 | + | - |
| | Reading | 11 | 23 | 13 | 24 | + | - |
| White | Math | 37 | 55 | 43 | 55 | + | - |
| | Reading | 28 | 47 | 27 | 47 | - | - |
| Black | Math | 10 | 14 | 12 | 16 | + | - |
| | Reading | 8 | 13 | 9 | 14 | + | - |
| Latino | Math | 15 | 21 | 16 | 23 | + | - |
| | Reading | 5 | 14 | 10 | 16 | + | - |
| Asian | Math | 40 | 58 | 58 | 52 | + | + |
| | Reading | 25 | 42 | 28 | 38 | + | - |
| ELL | Math | 8 | 11 | 10 | 14 | + | - |
| | Reading | 3 | 4 | 2 | 6 | - | - |
| Free/Reduced Price Lunch | Math | 17 | 20 | 13 | 22 | - | - |
| | Reading | 11 | 15 | 9 | 16 | + | - |

| 8th Grade | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | | |
| Overall | Math | 17 | 24 | 18 | 26 | + | - |
| | Reading | 15 | 21 | 16 | 23 | + | - |
| White | Math | 35 | 46 | 32 | 48 | - | - |
| | Reading | 33 | 42 | 37 | 43 | + | - |
| Black | Math | 8 | 10 | 13 | 13 | + | + |
| | Reading | 5 | 11 | 5 | 13 | + | - |
| Latino | Math | 12 | 16 | 10 | 19 | - | - |
| | Reading | 9 | 14 | 13 | 16 | + | - |
| Asian | Math | 46 | 52 | 47 | 49 | + | - |
| | Reading | 39 | 38 | 28 | 41 | - | - |
| ELL | Math | 13 | 4 | 4 | 5 | - | - |
| | Reading | n/a | 2 | 5 | 2 | n/a | + |
| Free/Reduced Price Lunch | Math | 13 | 15 | 15 | 18 | + | - |
| | Reading | 11 | 13 | 13 | 16 | + | - |

Like Philadelphia, Baltimore is a relatively new participant in the Trial Urban District Assessment. The Baltimore district's overall student achievement improved in both fourth- and eighth-grade math and in eighth-grade reading. (see Table 13) Among fourth-grade black students, the percentage of students who performed at or above proficient in math increased from 10 percent to 14 percent. Among students eligible for free or reduced-price lunch, the percentage of those performing at or above proficient in fourth-grade math increased from 9 percent to 14 percent. That wasn't the case for eighth-grade students eligible for free or reduced-price lunch—they failed to make progress in math and reading between 2009 and 2011. When compared to their peers in other urban cities, Baltimore students did not perform as well in all of the eight academic measures for which achievement data was available for both the fourth and eighth grades.

TABLE 13

## Baltimore Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts

| 4th Grade | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | | |
| Overall | Math | 13 | 29 | 17 | 30 | + | - |
| | Reading | 12 | 23 | 11 | 24 | - | - |
| White | Math | 34 | 55 | 44 | 55 | + | - |
| | Reading | 32 | 47 | 34 | 47 | + | - |
| Black | Math | 10 | 14 | 14 | 16 | + | - |
| | Reading | 10 | 13 | 9 | 14 | - | - |
| Latino | Math | n/a | 21 | n/a | 23 | n/a | n/a |
| | Reading | n/a | 14 | n/a | 16 | n/a | n/a |
| Asian | Math | n/a | 58 | n/a | 52 | n/a | n/a |
| | Reading | n/a | 42 | n/a | 38 | n/a | n/a |
| ELL | Math | n/a | 11 | n/a | 14 | n/a | n/a |
| | Reading | n/a | 4 | n/a | 6 | n/a | n/a |
| Free/Reduced Price Lunch | Math | 9 | 20 | 14 | 22 | - | - |
| | Reading | 9 | 15 | 8 | 16 | - | - |

| 8th Grade | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | | |
| Overall | Math | 10 | 24 | 13 | 26 | + | - |
| | Reading | 10 | 21 | 12 | 23 | + | - |
| White | Math | n/a | 46 | 31 | 48 | n/a | - |
| | Reading | n/a | 42 | 34 | 43 | n/a | - |
| Black | Math | n/a | 10 | 10 | 13 | n/a | - |
| | Reading | 9 | 11 | 8 | 13 | - | - |
| Latino | Math | n/a | 16 | n/a | 19 | n/a | n/a |
| | Reading | n/a | 14 | n/a | 16 | n/a | n/a |
| Asian | Math | n/a | 52 | n/a | 49 | n/a | n/a |
| | Reading | n/a | 38 | n/a | 41 | n/a | n/a |
| ELL | Math | n/a | 4 | n/a | 5 | n/a | n/a |
| | Reading | n/a | 2 | n/a | 2 | n/a | n/a |
| Free/Reduced Price Lunch | Math | 8 | 15 | 9 | 18 | + | - |
| | Reading | 8 | 13 | 9 | 16 | + | - |

The District of Columbia demonstrated progress in math and reading in both the fourth and eighth grades between 2003 and 2011. (see Table 14) The percentage of students who performed at or above proficient in math increased from 7 percent to 23 percent among fourth graders and from 6 percent to 15 percent among eighth graders. Improvement was seen across various subgroups. The percentage of fourth-grade Latino students who performed at or above proficient in reading, for example, increased from 8 percent to 21 percent, while the percentage of fourth-grade black students increased from 7 percent to 11 percent. Among eighth-grade black students, the percentage of students who performed at or above proficient in math increased from 3 percent to 9 percent during this same period. Likewise, the percentage of eighth-grade students who were eligible for free or reduced-price lunch and performed at or above proficient in reading increased from 6 percent to 8 percent. When compared to its peers, the District of Columbia school district has a great deal of room for improvement. The district outperformed its urban district peers in only three of 12 academic measures in the fourth grade and in only two of 12 measures in the eighth grade.

TABLE 14

**Washington, D.C. Math and Reading NAEP Scores: Percent of students who are proficient or above by race, eligibility for free or reduced price lunch, and English language proficiency, as compared to the national average for city districts.**

| 4th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 7 | 20 | 10 | 24 | 14 | 28 | 19 | 29 | 23 | 30 | + | - |
| | Reading | 10 | 19 | 11 | 20 | 14 | 22 | 18 | 23 | 20 | 24 | + | - |
| White | Math | 71 | 42 | 78 | 50 | 73 | 54 | 81 | 55 | 85 | 55 | + | + |
| | Reading | 70 | 39 | 70 | 40 | 74 | 44 | 75 | 47 | 73 | 47 | + | + |
| Black | Math | 4 | 8 | 5 | 11 | 8 | 13 | 9 | 14 | 12 | 16 | + | - |
| | Reading | 7 | 10 | 8 | 11 | 9 | 12 | 11 | 13 | 11 | 14 | + | - |
| Latino | Math | 7 | 13 | 11 | 17 | 19 | 21 | 25 | 21 | 22 | 23 | + | - |
| | Reading | 8 | 13 | 12 | 13 | 15 | 14 | 17 | 14 | 21 | 16 | + | + |
| Asian | Math | n/a | 47 | n/a | 49 | n/a | 57 | n/a | 58 | n/a | 52 | n/a | n/a |
| | Reading | n/a | 35 | n/a | 35 | n/a | 40 | n/a | 42 | n/a | 38 | n/a | n/a |
| ELL | Math | 3 | 7 | 7 | 10 | 9 | 12 | 15 | 11 | 12 | 14 | + | - |
| | Reading | 3 | 6 | 4 | 5 | 9 | 6 | 7 | 4 | 5 | 6 | + | - |
| Free/ Reduced Price Lunch | Math | 3 | 12 | 5 | 15 | 7 | 19 | 8 | 20 | 11 | 22 | + | - |
| | Reading | 6 | 12 | 6 | 12 | 6 | 13 | 9 | 15 | 9 | 16 | + | - |

| 8th Grade | | 2003 | | 2005 | | 2007 | | 2009 | | 2011 | | Change 2003-2011 | 2011 District Performance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | District | Average | District | Average | District | Average | District | Average | District | Average | | |
| Overall | Math | 6 | 16 | 7 | 19 | 8 | 22 | 12 | 24 | 15 | 26 | + | - |
| | Reading | 10 | 19 | 12 | 20 | 12 | 20 | 14 | 21 | 15 | 23 | + | - |
| White | Math | n/a | 36 | 69 | 39 | n/a | 44 | n/a | 46 | 78 | 48 | + | + |
| | Reading | n/a | 37 | 74 | 38 | n/a | 39 | n/a | 42 | 63 | 43 | n/a | + |
| Black | Math | 3 | 5 | 4 | 7 | 6 | 9 | 6 | 10 | 9 | 13 | + | - |
| | Reading | 8 | 10 | 9 | 10 | 9 | 10 | 9 | 11 | 10 | 13 | + | - |
| Latino | Math | 3 | 10 | 9 | 11 | 9 | 13 | 17 | 16 | 12 | 19 | + | - |
| | Reading | 11 | 12 | 18 | 13 | 19 | 12 | 22 | 14 | 14 | 16 | + | - |
| Asian | Math | n/a | 33 | n/a | 40 | n/a | 44 | n/a | 52 | n/a | 49 | n/a | n/a |
| | Reading | n/a | 30 | n/a | 35 | n/a | 34 | n/a | 38 | n/a | 41 | n/a | n/a |
| ELL | Math | 3 | 4 | n/a | 4 | 2 | 4 | n/a | 4 | 4 | 5 | + | - |
| | Reading | 6 | 2 | n/a | 3 | n/a | 2 | n/a | 2 | 1 | 2 | - | - |
| Free/ Reduced Price Lunch | Math | 2 | 9 | 4 | 11 | 4 | 14 | 6 | 15 | 6 | 18 | + | - |
| | Reading | 6 | 12 | 8 | 13 | 7 | 12 | 8 | 13 | 8 | 16 | + | - |

Taken as a whole, the composite picture of mayoral control across these districts suggests improvement. New York, Boston, and—to some extent—Chicago, improved their National Assessment of Educational Progress performance. Students in these districts outperformed their peers across various subgroups and subjects in both the fourth and eighth grades. On state assessments, mayor-led districts improved over time—or at least narrowed the district-state achievement gap across many academic measures and subgroups. There are, to be sure, areas that improvement, especially in the upper grade levels.

The districtwide summary trends discussed in this section provide a useful starting point for further discussion. But simply examining performance over time fails to account for the many factors that affect student-proficiency levels. The analysis thus far is quite helpful in orienting us to a general picture of mayoral control and academic performance, but we need more comprehensive statistical analysis to better understand whether mayoral governance is contributing to—or hindering—student achievement. To guide our understanding, we turn now to a more in-depth analysis of school performance in three selected states—New York, Illinois, and Massachusetts.

# Mayoral governance and school performance in three states, 1999–2010

Much of the scholarly literature on mayoral-appointed school boards consists primarily of single-district case studies.[22] These studies provide us with rich detail about the nature of mayoral control and in some cases have tracked outcomes in particular districts. But case-study methodology does not allow us to link governance changes to changes in student achievement and financial management outcomes at a systematic level. In our 2007 study, therefore, we designed a mixed-methods analytic approach, including a new quantitative, empirical assessment. The hallmark of our analysis was our move beyond district-level summary statistics to conduct more systematic intradistrict and interdistrict analysis. While our analysis in *The Education Mayor* was extensive, we concluded that there remains much to do. In this report we present the results of several important improvements and extensions to our previous work using methods that are described in detail in the appendix.[23]

Suffice to say that this analytic strategy is an improvement over our 2007 study because it allows us to consider mayoral control separately as it has been implemented in different cities and states. In addition, by conducting a school-level rather than a district-level unit of analysis we greatly increase the number of observations in our dataset, allowing us to better estimate the effect of mayoral control. Our previous analysis examined 104 districts in reading and math over a span of five years and for 520 sets of district-level observations. In our present analysis, we examine all schools in three key states—New York, Illinois, and Massachusetts—measuring performance over a 10- to 12-year time period. We also disaggregate the analysis into grade levels, which gives us more variation. As we report in Table 15, this approach produced datasets with more than 30,000 observations. The data allow us to compare schools in mayoral-controlled districts with all other schools in the state. In addition, we can analyze the effect of mayoral control on student subpopulations in New York and Illinois, an advance over our previous analysis.

TABLE 15

**Number of school-year observations in the dataset**

| State | Grade | Years | Number of observations |
|---|---|---|---|
| Illinois | 8 | 1999–2009 | 10,337 |
| | 11 | 2001–2009 | 4,171 |
| Massachusetts | 4 | 1998–2010 | 4,033 |
| | 8 | 1998–2010 | 1,665 |
| New York | 4 | 1999–2010 | 9,352 |
| | 8 | 1999–2010 | 4,958 |
| **Total** | | | **34,516** |

## Mayoral governance raises student achievement

We believe that the expansive datasets we have developed allow for rigorous analysis and meaningful policy inferences.[24] We discuss our results in this section. For the purposes of this discussion, we focus on the student achievement of a school residing within a mayoral- control district, controlling for the socioeconomic characteristics of the students and the enrollment of the schools.

The school-level analysis, summarized in Figures 2 and 3, suggests that between 1999 and 2010 the benefits of mayoral control have been strongest in the state of New York—where both New York City and Yonkers have mayoral-appointed school boards. In the state of New York, there is a significant positive relationship between a school in a mayoral-controlled district and student achievement growth in both eighth-grade math and reading and in fourth-grade math. New York City's National Assessment of Educational Progress performance since 2003 mirrors these trends, as discussed earlier. (see Table 8)

In Chicago there is a significant positive relationship between mayoral control and student achievement growth in eighth-grade math and reading. Achievement growth is greater among schools in Chicago compared to schools with similar racial, ethnic, and income characteristics elsewhere in Illinois. As discussed earlier, eighth-grade student-achievement performance was consistent with the improvement in the National Assessment of Educational Progress. This is not the case, however, at the 11th-grade level, where Chicago schools did not outperform other schools with similar characteristics in the state.

In Boston, we find that mayoral control has a significant positive effect on fourth-grade math performance. This is the only significant positive relationship that emerges. This positive finding is consistent with the trend in the district's National Assessment of Educational Progress achievement performance. As Table 10 suggests, Boston outperformed its urban district peers in math and reading in grades four and eight in 2011.

Overall, the magnitude of the effects of mayoral control on student achievement in these districts ranges from 1 percent to 3 percent. (see Figure 2) This suggests that in these particular districts, subjects, and grades, mayoral control increases the percentage of students in a school who are proficient on state academic standards by 1 percent to 3 percent annually. While 1 percent may initially seem to be a small number, these are average effects across all schools in a district. In terms of the raw numbers, a 1 percent increase in proficiency rates among New York City's fourth graders, for example, would increase achievement for nearly 2,000 students.

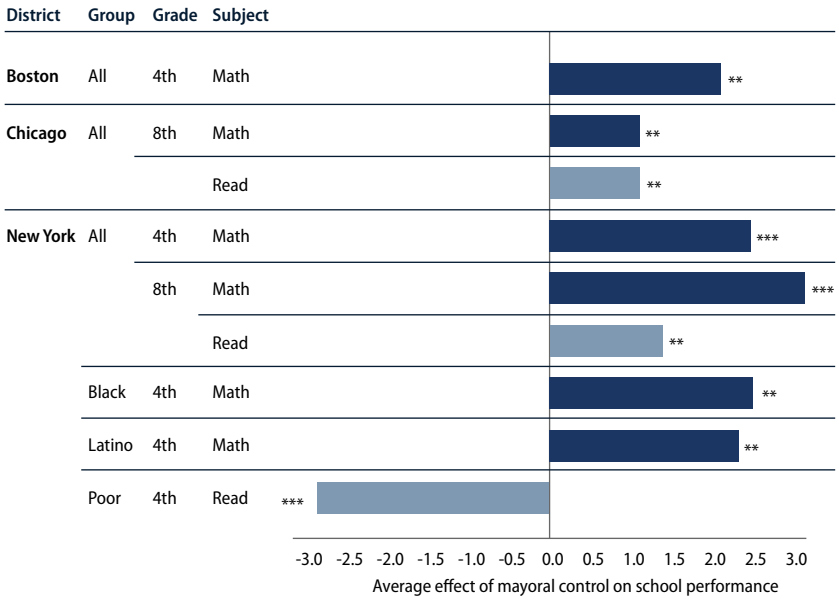
In two states—New York and Illinois—available school-level data allow us to examine the effect of mayoral control on student subpopulations. Because subgroup scores are not recorded in schools when the number of students in a subgroup is very small, we are not able to include as many schools in our subgroup analysis. Nevertheless, the analysis allows us to determine how mayoral control affects some student subgroups. We find that in New York City mayoral control is significantly related to achievement growth in student subgroups. In this case, mayoral control has a positive effect on the achievement of fourth-grade Latino and black students. These positive results mirror the district's National Assessment of Educational Progress achievement for these subgroups. (see Table 8) But we do not find that mayoral control has a significant effect on achievement in other grades and subjects in New York City, and we see no relationship between achievement among subgroups and mayoral control in Illinois.

The results of this school-level analysis suggest that the relationship between mayoral control and student achievement is complex. While mayoral control may not lead to achievement growth across the board, there are clear indications that it has significant positive effects on some subject areas at certain grade levels and for various subgroups of students. In summary, our study on district-level trends and school-level analysis yields several findings.

Districtwide trends suggest that mayoral control has improved student achievement in urban districts and that in several cases, performance in these districts is

FIGURE 2

**Magnitude of Statistically Significant Average Effects of Mayoral Control on Annual Growth in Student Achievement, by District, Grade, and Subject**




Notes: Figure 2 presents the statistically significant average effects of mayoral control on school-level growth in student achievement. Effects are derived from the statistical models, and these are effects that hold the other control variables constant at their means. Statistical significance is denoted as follows: * p < .10; ** p < .05; *** p < .01.

approaching the state average—though they remain short of the average state performance level).

• More robust statistical analysis at the school level suggests that there is variation in the long-run effectiveness of mayoral control in improving student achievement growth at the school level. In New York City schools, for example, achievement among African American and Latino students improved significantly in fourth-grade math. In Chicago mayoral governance contributed to academic gains in eighth-grade math and reading achievement. These improvements ranged from 1 percent to 3 percent annual growth in the percentage of students meeting the proficiency standards. Consequently, thousands of students in these large urban districts succeeded academically as they moved from one grade to the next. In this regard, the effects of mayoral control are more appropriately assessed at the school level, rather than at the aggregate district level.

• Our results suggest that, in some districts, mayoral control has its greatest effect in its initial period of roughly seven to eight years. As districts under mayoral governance consolidate their initial academic gains, they, like their better-performing peers, face new challenges in elevating their districts to a higher level of academic performance.

# Implications for the future of mayoral governance

Evaluating the effects of mayoral control is a challenging task because no two instances of this governance approach are identical.[25] Unlike an evaluation of a well-defined intervention—such as a reading-improvement strategy in certain grades, which may be implemented in a similar way across many districts—each school district under mayoral control uses a unique form of the governance model that is embedded in the city's distinct political environment. Thus, in drawing implications for their own districts, policymakers should not assume that mayoral-control experience in their district will unfold in a way that mirrors the experiences of the districts studied here. Rather, policymakers should consider this as the necessary background with which they should become familiar in order to make informed efforts on decisions about how mayoral control would be designed and implemented in their particular city and set of local circumstances.

Our study on the effects of mayoral control provides a useful empirical base for mayors who are actively engaged in education reform. These findings will also be useful to current and future mayors who may consider taking a greater role in public education. In this regard, we revisit some of our key findings.

- Mayoral-led districts are engaged in strategic allocation of resources. Using data spanning over a 15-year period, we find that compared to districts that are not mayor-led, mayoral-controlled districts are more likely to invest in teachers, spend more on instruction, have smaller student-teacher ratios, allocate a greater percentage of resources toward K-12 student-support services, and have a larger percentage of revenue from state sources and conversely, a smaller percentage of revenue from local sources. This strategic use of revenues to support K-12 education suggests that mayoral-controlled districts focus on the broader—and often the necessary—conditions that support effective teaching and learning. Consequently, several mayoral-led districts showed academic improvement over time.

- Over the past decade, mayoral-controlled school districts have generally improved districtwide academic performance relative to the state.

Understandably, this improvement varies across districts and is somewhat uneven by grade and subject matter.

- There were 11 districts that were governed by some degree of mayoral leadership toward the end period (2010) of our database on state-assessment results. Among these 11 districts, five made substantial improvement in narrowing the achievement gap with the state. These districts were New York, New Haven, Chicago, Philadelphia, and Baltimore. Four districts—Hartford, Harrisburg, Boston, and Providence—showed progress on some academic measures.

- Mayoral control in New York City appears to have significant positive effects on both fourth- and eighth-grade student achievement. African American and Latino students have benefited academically from mayoral control in New York City.

- In Boston and Chicago, achievement improvement was strong during the initial period of mayoral governance. In recent years, however, the effects of mayoral governance show a relative tapering of performance. Recognizing the need to connect schools to other social and civic institutions, the education mayors in these and other cities have actively promoted stronger collaboration across different sectors to improve the overall quality of life in urban neighborhoods.

While not addressed specifically in this report, in studying successful mayoral governance we made the following observations:

- **Mayoral governance is most effective when the mayor is ready to act.** To turn around a low-performing district, an education mayor is necessary but not sufficient. A mayor must be ready to act to overcome barriers to school improvement. Granting a mayor the opportunity to be in charge of the district is only the beginning. The mayor has to be an active education mayor, consistently leveraging resources and mobilizing stakeholders strategically to facilitate a supportive policy environment in public education.

- **A city must adapt not adopt.** Cities considering mayoral governance should adapt mayoral control to their unique local context. A thorough assessment of local challenges must be used to guide the design of mayoral governance. Given the variations in local cultures and politics, cities considering mayoral control must plan strategically and engage collectively to make sure that mayoral leadership contributes to a stronger system of accountability. Education mayors need

to form specific coalitions with key stakeholders in their community to raise school performance.

- **Mayoral control may require reinvention.** Mayoral governance, once established, cannot simply rely on early successes. Clearly, we need to learn from cities that continued to show academic gains over time. Without reinvention, mayoral control may stall in its ability to generate growth in student achievement. Our study suggests that even if mayoral control is initially successful, that success may be time bound. Reinventing mayoral control—whether through new leadership or new governance practices—seems necessary in reinvigorating student-achievement gains.

- **Involve diverse providers and charter schools.** The future of mayoral control will—and ought to—involve diverse providers and charter-school authorizations. Because of entrenched state politics, it seems unlikely that a large number of states will expand mayoral control to their big city school districts in the near future. Given this likelihood, mayors may be best served by finding alternative ways to enhance their city's public schools. One promising approach is through charter schools, such as the mayoral authorization of charter schools in Indianapolis.[26] Implementation of portfolio management with diverse providers under contractual arrangement—as is now the case in New York, Chicago, and Philadelphia—may provide new perspective on mayoral leadership.

# Conclusion

Several cities in this report have recently transitioned to new mayoral leadership, including:

- **The District of Columbia.** Former Mayor Adrian Fenty's primary defeat by City Council Chairman Vincent Gray in the September 2010 democratic mayoral primary ushered in a leadership change in the city's public schools, with Council Chairman Gray going on to win the mayoral election. The school district's former chancellor, Michelle Rhee, stepped down in October 2010 and was replaced by her former deputy Kaya Henderson.[27]

- **Chicago.** In September 2011 former Mayor Richard M. Daley (D) announced that he would not seek a seventh term.[28] Daley's successor, Mayor Rahm Emmanuel (D), is clearly committed to public-education reform. During his first year in office, he had to manage the first teachers' strike in Chicago in 25 years.

- **New York.** Schools' Chancellor Joel Klein announced his resignation in November 2010. Mayor Michael Bloomberg (I) selected businesswoman Cathie Black to succeed Klein, setting off a vigorous debate about her qualifications to be chancellor.[29] With the subsequent appointment of Dennis Wolcott as the school chancellor, New York City schools avoided a leadership crisis.

- **Providence.** In 2011 voters elected the city's first Latino mayor, Angel Taveras (D), who has tirelessly pushed forward with his school-reform agenda.

- **Cleveland.** Mayor Frank Jackson (D) is pushing to replace seniority with merit-based promotion and assignment for teachers, with new legislation coming from the governor and the state lawmakers in June 2012.

Each instance of leadership succession in mayoral-led districts—or controversy surrounding mayors' office-driven education initiatives—puts a spotlight on the efficacy of mayoral control of schools. It especially highlights its effects on student

and financial outcomes and what happens under new, less experienced mayoral leadership.[30] Certainly, gaining control of a school district offers a mayor an opportunity to make a difference. The real work begins, however, upon assuming that responsibility. In this study, we found that mayors in several districts have successfully shouldered that responsibility, implementing policies that have contributed to narrowing the student-achievement gap. Ongoing school improvement will certainly benefit from a strong system of accountability. Our findings clearly suggest that urban districts can make significant progress when a mayor is willing to lead and ready to act.

## About the authors

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# Appendix

## Methodology on statistical analysis

Mayoral control is a districtwide reform that affects all schools in the district, but mayoral control is not the only factor affecting school performance. Student demographics, school size, and school type are among the other factors that we know are likely related to student outcomes. We consider some of these factors in our statistical analysis to help us understand whether mayoral control has an effect on student achievement—over and above other confounding factors. Because we are concerned primarily with the value that mayoral control contributes to student achievement, we focus on annual growth in student achievement. The key features of our statistical model are as follows:

**Unit of analysis:** We employ what is called a "time-series, cross-sectional," or "panel," dataset in which we measure performance of schools in each state over time. We run separate models for each unique grade and subject combination. If we have data in a state for fourth- and eighth-grade reading and math, for example, this allows for four separate models.

**Dependent variable:** We analyze the effect of mayoral control on the percentage change of students who are proficient or exceed proficiency on a state's standardized test over one year.

**Explanatory variable of interest:** Our key explanatory variable is a dichotomous variable called *MAYOR*, which takes a value "1" if the school is in a district where the mayor appoints all or the majority of the school board—and "0" if this is not the case—in a given year.

**Control variables:** Our model includes additional factors that could affect student achievement. Separate variables are included to control for whether the school is a charter school, a magnet school, or is receiving federal Title I dollars. We control for student-teacher ratios and school enrollment. We also control for the percentage of black and Latino students enrolled, as well as the number of students who are eligible for free or reduced-price school lunches. Finally, we control for "time" in order to capture the effects of additional, unmeasured variables that are correlated with time—for example, the maturation of a new curricular strategy.

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17 Wong and others, The Education Mayor.

18 In more precise statistical terms, mayoral-led districts, relative to the state mean, improve their proficiency standing by approximately 0.15 to 0.19 standard deviations in elementary reading and math.

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20 The new standards for proficiency were "developed based on research from the state Testing Advisory Group (TAG) and CTB/McGraw-Hill, the state's testing contractor, to provide a clear indication to parents and schools as to whether a student was on-track for college success. The 8th grade Level 3 cut score is set at a level that offers students a 75% chance that they will score at a college-ready level (75 in English and 80 in Math) on their Regents exams in high school. The Grade 3-7 Proficiency scores are set so that a student making a year's worth of developmental growth for Math and ELA will be on track in 8th grade to achieve a Proficiency level indicating readiness for high school work that will lead to success in college." See: New York State Education Department, "Grade 3-8 Math and English Test Results Released: Cut Scores Set to New College-Ready Proficiency Standards," Press release, available at http://www.oms.nysed.gov/press/Grade3-8_Results07282010.html.

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23 We are not aware of other studies of this sort published in the four years since the publication of the book. While there have been numerous district-specific reports—for example, tracking basic progress made by a district's schools—the analysis in these reports, which typically does not control for multiple confounding factors, does not allow for the same types of inferences about mayoral control as our models.

24 A lack of comparable data over time and across districts on high school dropout rates, for instance, prevents us from carrying out the same type of analysis as we do with eighth-grade reading scores. Still the data on eighth graders—who will become 12th graders—can be quite instructive.

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