

# **Investing in Improvement: Strategy and Resource Allocation in Public School Districts**

**Stacey Childress**

**Working Paper**

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# Investing in Improvement

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## Strategy and Resource Allocation in Public School Districts

Stacey Childress

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**ABSTRACT:** This working paper offers concrete examples of improved productivity and efficiencies at the district level, drawing from the author's experience working with districts and developing such case studies for Harvard Business School. Childress makes the point that given the rarity of the strategic approaches to resource allocation, district leaders need more guidance and tools to help them make better decisions and manage the consequences, particularly when they are under enormous fiscal pressure.

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## **Investing in Improvement: Strategy and Resource Allocation in Public Schools Districts**

Stacey Childress

Harvard Business School

In a classic *Harvard Business Review* article in 1963, Peter Drucker proposed that the job of effective managers has three components: 1) analyzing available opportunities to produce results and developing an understanding of their costs, 2) committing resources to pursue the most promising opportunities, and 3) when some activities lead to results and others do not, deciding which should receive more resources and which should be abandoned altogether.<sup>1</sup> Drucker described the third component as the “most painful step.”

Leaders of public school districts face challenges that make it difficult for them to follow Drucker’s advice. Their operating environments are largely void of the market forces that reward a company’s success with more capital and exert pressure on it to eventually abandon unproductive activities. Instead, district leaders must raise investment capital and increase revenue through a political process that requires them to convince taxpayers, the majority of whom do not have children currently in the schools, to vote for higher property taxes and approve the issuance of municipal bonds. This process is complicated by the fact that their various stakeholders disagree about the purpose of education and how to define and measure success. State accountability systems have helped but not solved this problem.

Stakeholders also wield political pressure that shapes internal decisions about how money is spent. Unions, parents groups, and state and local politicians can all influence decisions about which activities will be funded and at what level. As a result, district leaders often

make decisions based on political considerations rather than organizational effectiveness. District leaders have plenty of ideas for improving performance, but when they launch these new initiatives they often leave the old ones in place. This practice is financially possible as long as revenue grows faster than inflation and negotiated increases in compensation. The net effect is layer upon layer of activities, many of which have little going for them but the fact they exist. Shutting them down would require releasing or reassigning employees and changing the services received by some students whose parents are strong advocates for the existing arrangements. Rather than jeopardize support for their initiatives by antagonizing powerful stakeholders, superintendents invest in their new ideas without disrupting existing programs. They rarely take Drucker's "most painful step."

But what happens when the growth of annual revenue decelerates even as compensation and benefits costs increase? After years of increased spending, the rate of growth in many district budgets began to slow in 2006.<sup>2</sup> By 2009, with a global recession in full swing, most districts faced actual reductions in year over year spending, many of them for the first time in two decades. Since there was no longer enough money to go around for the layers of activities that could exist when budgets were growing, districts could no longer avoid decisions about which activities to abandon.

Because district leaders have not developed a habit of weighing the relative impact of various activities so that they can starve ineffective ones in order to feed promising ones, many of them simply reduce every line item by the same percentage in order to be "fair." Another popular approach is to make deep cuts to centralized support services so that schools can maintain spending levels, but with no rigorous analysis to support this approach as the

most effective way to drive results while reducing spending. The magnitude of the current shortfalls makes it impossible to continue on this path.

This paper describes the strategic resource decisions in three of the twenty public school districts that colleagues and I have studied through the Public Education Leadership Project at Harvard University (PELP).<sup>3</sup> The stories in San Francisco, New York City, and Montgomery County, MD occurred largely before the districts faced dramatic decreases in revenues though they show the superintendents facing budget concerns near the end of the narratives. Even so, the situations share common principles that superintendents and their leadership teams can use to make differentiated resource decisions – reducing spending in some areas and increasing it in others with a clear rationale for why these decisions will produce results for students. As a frame for the cases, the next section provides an overview of a stream of resource allocation research from the management literature that highlights some of the challenges present in the three cases as well as in many other districts.

### **Resource Allocation in the Management Literature**

For more than fifteen years, some education advocates have pushed for the wholesale decentralization of resource decisions to school principals and away from central offices. Their arguments have been bolstered by a number of researchers, most notably William Ouchi.<sup>4</sup> Ouchi studied subsets of schools in ten districts that were attempting different versions of decentralization. He found a positive correlation between how much control principals had over their budgets and how much their student performance improved. He did not compare the rate of improvement in these districts to a sample of similar schools in other more centralized districts, nor did he address whether this approach led to a reduction in the

persistent gaps in performance between higher and lower performing schools or between student groups. Nonetheless, Ouchi and other advocates use the findings to frame a binary choice about who should control spending, either out-of-touch central bureaucrats who inefficiently squander resources or entrepreneurial instructional leaders who make optimal decisions for their students. This starkly drawn caricature fails to capture the realities of resource allocation in a complex organization, a topic researchers have been studying in other industries for forty years.

In the late 1960s, management scholar Joseph Bower conducted a two-year study of National Products to understand how the company committed resources to support its strategy. In 1970 he published his findings in his seminal book, *Managing the Resource Allocation Process*.<sup>5</sup> The conventional wisdom at the time was that senior executives developed strategy at the top and then implemented it by calculating the net present value of major projects proposed by field managers, only approving the projects that promised the highest returns on investment. Bower found something quite different at National Products. The company's strategy was actually shaped organically when frontline and middle managers used their own authority to commit resources to various small and medium-sized projects. These managers' decisions were more dependent on their individual motives, the systems of rewards and consequences that affected them, and the company's prior commitments than on the CEO's proclamations about the corporate strategy. As a result, the company had trouble implementing its intended strategy and meeting firm-wide performance targets. Bower described this as a problem that could not be solved with a formula in the corporate financial office nor by front-line managers acting independently. His findings were replicated by management scholars across three decades in domestic and international firms

of various types (integrated, multi-business, product, service, public agency, etc.).<sup>6</sup> In 2005, Bower said that these subsequent studies confirmed that “the problem of shaping a bottom-up pattern of committing scarce capital to a purpose formulated by top management [taxes] the leadership of private and public organizations of all shapes and forms.”<sup>7</sup>

This literature is focused primarily on capital investments aimed at increasing the productive capacity of the firm, such as building a new manufacturing plant. The strategic resource decisions in the school districts we studied in PELP were largely programmatic operating expenses rather than capital investments, but their general intent was the same: to increase the capacity of the system to produce results. These districts faced the same tensions discussed in the resource allocation literature. Superintendents and their leadership teams developed strategies to improve performance, usually with the support of their school boards. Some strategies were quite ambitious and some even included performance goals, but they were rarely concrete and usually did not specify interim benchmarks. Resources seldom lined up with the aggressive plans and vague goals. Decisions about staffing and other expenses were distributed across multiple schools, regions, and central office departments, making it difficult to mobilize concerted action to implement the strategy and reach objectives. In many districts, this distributed approach to resource allocation was deliberate, based on the assumption that professionals closest to the action would make the best spending decisions. Even so, superintendents and their senior teams continued to control the majority of spending, even in districts that Ouchi touts as most decentralized. For example, New York City principals controlled 85% of their school-level budgets in 2008, by far the largest percentage of any big-city district in the United States. However, only half of all New York City spending resides at the school level. Various central office and school support functions

control the other half. As budgets shrink, it is imperative that the decisions about centralized resources become more strategic in order to drive performance. The resource allocation literature identifies at least three situations in which top-down decisions about resources can add value to an organization, even when field managers have significant budget autonomy:<sup>8</sup>

1. The cost of an opportunity that will benefit the whole organization is larger than the budget authority of frontline or middle managers.<sup>9</sup>
2. Current investors and customers like things as they are and therefore have few incentives to provide additional resources for new activities.<sup>10</sup>
3. Disinvestment from existing activities is required, but meaningful incentives exist for decentralized decision-makers to continue funding them.<sup>11</sup>

In the remainder of this paper, I describe attempts in three districts to align resource allocation with a strategic direction by employing a mix of school-level decisions and centralized action consistent with the three circumstances above.

### **Strategy and Resource Allocation in Three Districts**

The cases that follow describe three superintendents' efforts to improve performance at scale in San Francisco, Montgomery County, MD, and New York City. The stories highlight changes in district resource allocation processes and the activist role each superintendent played in funding strategic activities while cutting off resources to others.

#### *San Francisco STAR Schools Initiative<sup>12</sup>*

In the summer of 2000, the San Francisco Unified School District's (SFUSD) board of education appointed Arlene Ackerman superintendent of schools. SFUSD had operated

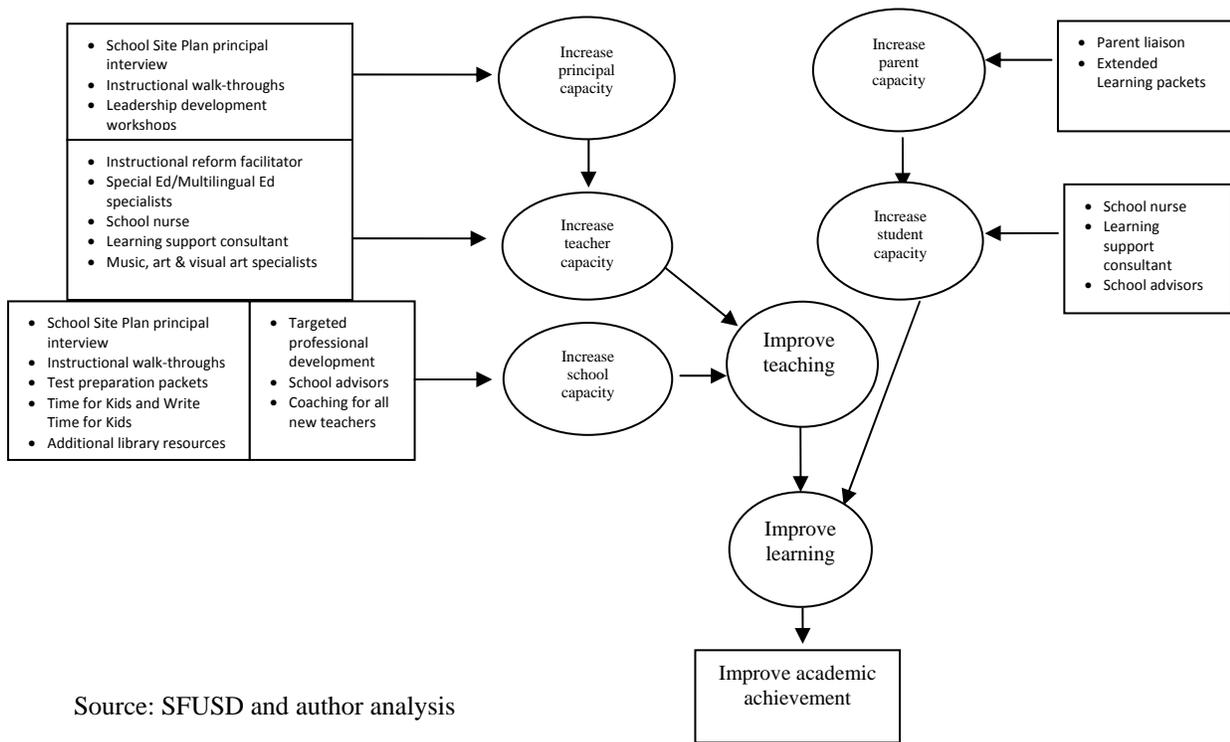
under a consent decree managed by a federal judge since 1983, which required the district to meet educational equity targets for all students. Upon her arrival, Ackerman appointed an educational equity committee to advise her on how to meet the requirements of the consent decree. The committee found that the achievement gaps between African-American and Latino students and their white and Chinese counterparts was widening. After controlling for student and school characteristics in 10 years of standardized test data, the committee demonstrated that African-American and Latino students as a group scored lower than other ethnic groups regardless of poverty levels. The educational equity committee also reported that many schools used a “dumbed-down” curriculum for these students. The committee put forth recommendations to address these findings, which Ackerman incorporated into a district-wide strategy for improvement dubbed “Excellence for All.” The strategy eliminated attendance zones in favor of city-wide school choice and gave principals and school teams budget autonomy in exchange for greater accountability for results.

To implement “Excellence for All” at the school level, SFUSD developed a weighted student formula (WSF) that attached a variable dollar amount to every student based on his or her learning needs. Before the WSF schools received resources in the form of staff headcounts based on projected student enrollment. Under the new model, principals received revenue allocations based on the students who actually enrolled and created their own academic plans to use those resources to serve their particular students. In other words, they would get money instead of bodies.

Even though Excellence for All was a comprehensive strategy, Ackerman and her team believed that the district needed to adapt it to the needs of chronically underperforming schools. The team created a program called “Students and Teachers Achieving Results”

(STAR) with a goal to increase student achievement at under-performing schools by providing targeted interventions at the school sites. STAR had a broad set of criteria that qualified schools for entry, and thirty-nine elementary, middle, and high schools entered the program in fall of 2001. The goal of STAR was to increase school, principal, parent, student and teacher capacity simultaneously. The team created a concept model that mapped the cause and effect links between each part of the intervention and improved outcomes (See Figure 2.)

Figure 2: STAR Schools Initiative Concept Model



By mapping the links between the proposed design features of the STAR strategy and expected outputs and outcomes, the team had a better handle on where resources would be best deployed. They funded six additional full- and part-time positions at each STAR school: an instructional reform facilitator (IRF), a long-term substitute, a parent liaison, a student behavior advisor in elementary and middle schools, a nurse, and a learning support

consultant (coach). The overall cost of the STAR intervention carried by the central office was approximately \$9.5 million. Approximately 70 percent of the total was paid for out of state categorical funds, with nearly \$4.7 million coming from consent decree money and \$1.9 million from a state initiative called Economic Impact Aid. The remaining 30 percent, around \$2.8 million, was funded through creative use of existing federal Title I dollars. The district raised no new funds for the strategy. Rather, it cut spending on other activities, such as outside program providers, curricular materials and professional development tied to previous interventions in low-income schools, as well as a number of administrative positions at central office focused on compliance functions. Resources freed by these cuts were used to fund the STAR strategy. On top of the standard revenue allocation that all schools received through the WSF, the thirty-nine schools that qualified received a “WSF STAR Bonus” that totaled \$431 per student. All other STAR expenses were carried on the central office budget. Table 1 provides three representative examples of the scale of the resource increase at STAR schools.

**Table 1: Representative impact of STAR initiative on School Resources, 2006**

	<b>Glen Park K-5</b>	<b>Sheridan K-5</b>	<b>Galileo 9-12</b>
<b>School-level Revenue</b>			
Student Enrollment	294	216	2,100
Regular WSF Allocation	\$1,306,691	\$964,647	\$7,673,139
WSF STAR bonus (\$431/student)	\$126,714	\$93,096	\$905,100
Total WSF Allocation	<b>\$1,433,405</b>	<b>\$1,057,743</b>	<b>\$8,578,239</b>
<b>STAR expenses carried at central office</b>			
Instructional Reform Facilitator	\$74,217	\$74,217	\$74,217
Site Support Sub(s)	\$40,017	\$40,017	\$80,034
Parent Liaison (0.5 FTE)	\$26,130	\$26,130	\$26,130
Elementary / Middle School Advisor	\$13,780	\$13,780	\$0
Art/Music / Planning Time for 4th and 5th Grade	\$37,109	\$37,109	\$0
Learning Support Consultant	\$43,349	\$36,125	\$0
School Nurse	\$34,466	\$34,466	\$0
Test Prep. Packets	\$588	\$432	\$10,010
Monthly Library Books	\$935	\$935	\$662
Home/School Learning Packets	\$2,058	\$1,512	\$10,800
Time for Kids (\$5/student)	\$1,470	\$1,080	\$0
	<b>\$274,119</b>	<b>\$265,802</b>	<b>\$201,853</b>
<b>Percentage increase due to STAR resources</b>	<b>30.68%</b>	<b>37.21%</b>	<b>14.43%</b>

Source: SFUSD and author analysis

As the table shows, schools saw significant percentage increases through the WSF STAR Bonus and expenses carried at central office. But why mix resource allocation methods so soon after winning approval to shift from the old staffing-ratios method to the weighted student formula? Why not load all of the extra resources into the WSF STAR Bonus and send unrestricted dollars to schools based on their student enrollments?

The theory of action that drove the Excellence for All strategy was based on the assumption that adults closest to students could and would make the best instructional and resource decisions *if* they had the proper supports. Ackerman often said, “If low-performing schools knew how to fix themselves, they would do it.” Because she and her team had developed a role-driven theory about how to improve their worst schools, they believed that it was best to mandate those roles and for central office to take on the expenses they represented. Even if individual principals could make good decisions about how to deploy their WSF revenues in their own schools, they were not well positioned to learn from what their colleagues were doing in other schools. Because the IRF position resided in the school but was funded and supported centrally, district leaders believed the central office was better positioned to learn from all 39 IRFs and spread the practices across other schools to foster more rapid improvement.

From 2002 to 2006, SFUSD’s current expenditures decreased from approximately \$487 million to \$470 million, a compound annual growth rate of nearly (-1) percent, but with enrollment declines, per pupil spending was virtually flat (Table 2).

Table 2: SFUSD current expenditures and per student spending, 2002-2006

	2002	2006
Current Expenditures	486,639,000	469,940,000
Enrollment	58,566	56,236
\$ per student	8,309	8,357

Source: U.S. Census Bureau

Even though current expenses were projected to decrease further to \$462 million in 2007, SFUSD still faced a shortfall due to declining enrollment and increased costs related to a new teachers’ contract that the school board negotiated in 2006, which committed the district to more than \$19 million in new annual spending beginning in 2007. After significant reductions in central office and non-instructional expenses, SFUSD still faced a shortfall of \$5 million on its estimated \$462 million operating budget, so district leaders explored options to further cut spending to cover the teacher salary increases. Because the STAR program accounted for \$9.5 million each year, the team began to consider ways to reduce the program’s supports in order to achieve the budget targets. Armed with survey data that showed principals and teachers overwhelmingly cited the IRF and long-term substitute roles as the most effective parts of the intervention, district leaders considered reducing STAR resources, preserving these two positions as core to the strategy. When teachers and principals learned of the possible reductions, there was an outcry. As one teacher put it, “We accomplished the growth because of the extra money, because of the professional development, and the IRF position. If they take the resources away after we’ve progressed so much, it’s almost like we’re getting punished – these things helped us get where we are. If they take them away, it’s like we’re back at square one.” A principal added, “Outside experts look at a program like STAR and think it’s about reallocating and using resources differently.

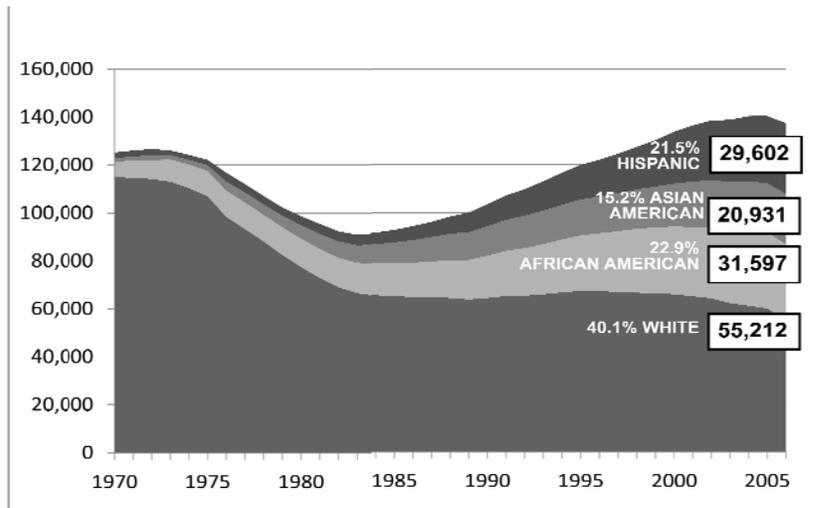
True, but it's also about more resources. STAR is designed well...but I just want to go on the record and say that part of our performance problem in the past was too few resources.”

During the budget discussions, Ackerman left the district under pressure from her board, but an interim superintendent maintained STAR for 2006 - 2007, in part due to the fact that 12 schools performed well enough to graduate from the initiative that year, thereby reducing the cost of the overall intervention. Over time, the district stopped funding parts of the strategy that it deemed less important and continued investments in IRFs, the nurses and parent liaisons, and the STAR Bonus. Every year a few schools performed well enough to graduate, while others were added to the program. As of the 2009-2010 school year, the strategy was still in place.

### *Montgomery County Public Schools Red Zone/Green Zone Approach<sup>13</sup>*

Serving 140,000 with a budget of \$2 billion, Montgomery County borders Washington D.C. and is Maryland's largest and most affluent county. But in addition to the older, established neighborhoods and new upscale subdivisions, there are also deep pockets of poverty. The makeup of the student population in the county schools has changed dramatically over the last three decades (Figure 3). When Superintendent Jerry Weast arrived in Montgomery County Public Schools (MCPS) in 1999, the district had a strong reputation for quality. But along with the big demographic shifts, board members and community leaders were faced with the troubling reality that, along with some of the best schools in the country, Montgomery County had many schools that performed at levels similar to some of the lowest performing urban schools in America. The board hired Weast to create a new reality in which all students in the district had access to a great education.

Figure 3: Changes in MCPS Enrollment and Demographics, 1970-2005



Source: MCPS

Because of residential patterns, low-income and minority students were concentrated in particular areas of the county. Reading and math proficiency rates for schools in these areas were 20 – 35 points lower than schools in more affluent parts of the county. Describing the situation, Weast said, “The only thing we could predict was failure, and with a great deal of consistency. We could also predict who would fail because the evidence didn’t show any...systemic approach to raising the level of education in our high poverty schools.” As a first step, district leaders created two zones and labeled one “red” and the other “green.” Each zone accounted for roughly the same number of students but had significantly different demographics. Students in the Green Zone were predominantly white and came from middle- to high-income families; those in the Red Zone were mostly African American, Hispanic or recent immigrants and low income. In fact, with similar demographics, the Red Zone was larger than the public school districts in Atlanta, Boston, Denver, San Francisco, and Washington, D.C. (Table 3.)

Table 3: MCPS Red Zone/Green Zone Demographics, 2009

	Red Zone	Green Zone
Enrollment	70,500	70,500
Minority	80%	43%
ESL	30%	10%
Free/Reduced Meals	51%	12%

Source: MCPS

Dividing MCPS into two zones did more than highlight the correlation between low-performing schools and high-minority populations; it formed the foundation of MCPS’s strategy. Because predictable performance variability between student groups (and geographic regions) was the problem, the MCPS team believed that differentiation was the solution. The district set out to reduce variability in performance by allocating different levels of resources to schools in the Red and Green Zones.

In order to garner support for this method of resource allocation, district leaders proposed a new way of thinking about equity: equity does not mean equal resources, it means equal opportunity. Unequal treatment was required to provide equal opportunity – more money, more talent, and more time were essential if the Red Zone students could be expected to rapidly meet the same standards as Green Zone students. In the past, MCPS had allocated resources equally across all schools based on enrollment numbers regardless of need or performance.

In a series of community meetings in the fall of 1999, Weast explained the theory of unequal resource allocation, making the case that the Red Zone needed more time, better-trained teachers, and smaller class sizes to level the playing field. A number of parents in wealthier parts of the county did not like the idea of moving resources from the more

advantaged schools their children attended to low-performing schools. They were concerned that their children would be shortchanged in the process and that performance across the district would go down. In part the district’s message hinged on the doing the “right thing” for kids, but Weast also stressed the concept of a school district brand: good schools mean good neighborhoods, and good schools are good for property values. Improving schools in less affluent neighborhoods would be good for the whole county. Building sufficient (though not universal) support from Green Zone parents allowed the district to invest disproportionately in Red Zone schools.

District leaders believed their efforts would be diluted in trying to attack every grade at once, so they decided to focus first on early-elementary literacy coupled with access to high school advanced placement (AP) and honors courses. The two were strongly linked—an internal research report found a high correlation between third grade literacy proficiency and high school honors course enrollment. The correlation was equally strong across all four major racial and ethnic groups in MCPS. Based on this data, the team decided that one effective way to change achievement patterns predicted by race and income was to implement reform at both ends of the kindergarten-through-12 continuum, with emphasis on the neediest schools. Mapping backward from high school, the district set benchmarks for achievement starting in kindergarten that would prepare children for higher-level coursework through the next twelve grades. Weast explained the motivation for the approach, saying, “We knew that if we did this right, we could push the capacity for higher achievement, grade by grade, and shut down the argument that children would not be ready.”

The first wave of reforms launched in 60 focus elementary schools in the Red Zone which served 75 percent of the district’s ELL population, 80 percent of all elementary

students receiving free and reduced-price meals, 78 percent of the district's Hispanic students, and 70 percent of the elementary African-American student population.

The district created full-day kindergartens and reduced class size in kindergarten through second grade. Called the Early Success Performance Plan, structural and curricular reforms at the focus schools were all aligned with the goal of improving third grade literacy. Kindergarten class sizes were reduced to a student-to-teacher ratio of 15 to 1. MCPS invested in new kindergarten curricula and assessments, and established a benchmark for kindergarten reading that was much more rigorous than what had previously been expected of kindergarteners. Other investments expanded instructional time without lengthening the school day through class-size reductions and new requirements for time spent on certain content areas. The class-size ratio for first and second grades was reduced to 17 to 1 and reading instruction for all students was increased to ninety minutes, with students reading below grade level receiving an additional forty-five to sixty minutes of literacy instruction per day. Investments in teacher knowledge and skill were critical to the conversion, and the district eventually spent \$50 million annually on targeted professional development to support the strategy.

The annual spending per student in 2000 was around \$11,000. Eventually, the Green Zone “subsidized” the Red Zone by \$2,000 per student annually. There were no actual transfer payments between zones—Green Zone spending did not decrease to pay for Red Zone increases—but the resource imbalance was real. Growth in Green Zone spending slowed significantly to permit new investments in the Red Zone. Between 2000 and 2008, overall per student spending grew from \$11,000 - \$14,000. But Red Zone spending increased to \$15,000 per student, while Green Zone spending only reached \$13,000 (Table 4).

Table 4: Compound Annual Growth Rate in MCPS per student spending and rate of inflation, 2000 - 2008 (nominal dollars)

	2000	2008	CAGR
MCPS \$/student	11,000	14,000	3.06%
Red Zone \$/student	11,000	15,000	3.95%
Green Zone \$/student	11,000	13,000	2.11%
Consumer Price Index*	172.20	215.30	2.83%*

\*The CAGR for the Consumer Price Index is the rate of inflation for the particular time period.

Source: Montgomery County Public Schools, Bureau of Labor Statistics, author analysis

As long as revenue increased every year, the leadership team could invest disproportionately in the Red Zone without reducing resources in the Green Zone. In spring of 2009, MCPS faced a \$100 million revenue shortfall against projected expenses for the following academic year. As senior executives and board members were considering major cuts to core pieces of the strategy to balance the budget without alienating important stakeholders, the leaders of the district's three employees unions brought a proposal to their members to defer \$89 million in negotiated compensation to preserve investments in the strategy. As members of the superintendent's cabinet, the union presidents had helped craft the strategy and saw themselves as partners in the district's results. Many of the investments were in people (i.e. union members), and deep cuts would have resulted in layoffs. The measure passed overwhelmingly and MCPS was able to maintain funding and staffing levels in both zones for the 2010 academic year. In November 2009, union leaders were again at the table with board members and district leaders searching for an additional \$100 million in cuts, with all parties committed to preserve the investments in the Red Zone. Together, the multi-stakeholder teams working on the budget are attempting to take Drucker's most painful step as effectively as possible.

Serving more than one million students in approximately 1,500 schools with an operating budget of \$17 billion, the New York City school system was the largest in the United States in 2008. After 32 years of joint governance between a seven-member board city-wide appointed by the mayor and five borough presidents and 32 locally elected boards, Mayor Giuliani took full control of the system in 2000. Michael Bloomberg inherited the schools when he became mayor in January 2002, and the following July he appointed Joel Klein as the system's new chancellor. Following a series of community engagement meetings during his first year, Klein unveiled the Children First reform agenda, named to show his commitment to putting the interests of “children first, not politics or bureaucracy.”

The early years of Children First focused mainly on regaining control of what Klein described as a “chaotic and dysfunctional organizational structure.” Klein noted that his administration's “first task was to lock the system down, establish some control, and bring coherence to the system.” Klein grouped the 32 community districts into 10 regional offices designed to support schools' operational and instructional needs. Using the regional offices to enforce standards and implement reforms, the DOE instituted a common math and literacy curriculum for grades K-8, ended social promotion, created 150 small schools to replace large failing high schools, and added math and literacy coaches as well as a parent coordinator position to every school.

Two years after establishing the regional offices, Klein's Children First message began shifting from regional control to school-level empowerment. The refined Children First strategy included three pillars of reform: leadership, empowerment, and accountability. Klein

remarked: “Our reform strategy is premised on the core belief that strong school leaders who are empowered to build and support teams and make instructional and managerial decisions and who are prepared to be held accountable for student performance will result in high-functioning schools.”

As did Ackerman in San Francisco, Klein believed that if competent principals who were closest to the problems were empowered they would make better decisions about resources and academic programs than the central office could on their behalf. In order for empowerment to be effective, Klein also believed that principals needed to be held accountable for student performance. Klein described his theory of change this way: “If we empower principals and hold them accountable for school results, we’ll do two things—shift the locus of power from central office to the schools, and shift the organizational culture to a focus on results. However, I know that autonomy in and of itself is not going to guarantee success. But it will lead to innovation. And I suspect that if we’re tight on accountability and instill an intense focus on student outcomes, we can also build into the equation some variability in terms of problem solving at the school level and learn from it.”

Implementation of the autonomy for accountability exchange required a major overhaul of the resource allocation process along with investments in mechanisms to support the accountability and learning functions Klein described in the quote in the previous paragraph. Among the resource shifts that accompanied the strategy, two were especially emblematic of Klein’s efforts to align resources with the autonomy/accountability exchange: Fair Student Funding (FSF) and a multi-faceted accountability system.

The NYCDOE implemented a new formula for allocating resources to schools in 2007. Similar to San Francisco's WSF, the FSF was designed to differentiate per student spending by attaching dollars to students based on a number of learning characteristics. The change served two purposes. First, if principals were to be accountable for their students' learning, then it was critical that they receive resources based on their students' learning needs. Differential resources flowed to schools based on actual enrollment so that principals could create their academic plans and budgets in ways that were more responsive to their specific students' needs. Second, under the old allocation system, schools in more affluent neighborhoods spent more per student than schools in less affluent neighborhoods. By weighting the resources based on student characteristics, the district aimed to achieve more equitable school budgets.

Of the total \$16.9 billion in 2008 spending, school budgets accounted for \$8.7 billion. Approximately two-thirds of this was allocated through the FSF, with the balance allocated in lump sums according to categorical formulas such as federal Title I and state special education funds. Because of other changes aimed at increasing principal autonomy (e.g. decoupling teacher seniority from hiring), principals controlled approximately 85 percent of the spending in their schools, the highest percentage of any large district committed to principal autonomy.<sup>15</sup> The 693 schools that were considered "underfunded" before the FSF received an additional \$110 million under the new system. The NYCDOE decided to limit losses in schools that were considered "overfunded" before the FSF to protect them from significant decreases. These "hold harmless" concessions for 661 schools cost the district \$237 million, more than twice the cost of increasing funding for disadvantaged schools.

Because of these decisions, the resource imbalance between schools was not fully rectified in the first two years of the FSF.<sup>16</sup>

As the NYCDOE redesigned the allocation process to support principal autonomy, it also made system-wide investments in new accountability mechanisms from the top. Implemented in 2007, the accountability system included several components that required significant investments: progress reports, learning environment surveys, quality reviews, inquiry teams, and performance bonuses. The progress reports were published every year and awarded each school a letter grade A-F based on student achievement data and evaluations from parents, teachers and students of its learning environment. Each school received an annual quality review, a visit from an outside reviewer who used a common rubric to assess the school’s ability to use student data to improve instruction. Each school was also required to have an inquiry team, a group of teachers who worked together to diagnose and respond to the learning needs of students who were outside their school’s “sphere of success”. Depending on a school’s performance on its progress report, the principal and teachers could receive performance bonuses. All of these costs were carried by the central office rather than being devolved to school budgets. (Table 5.)

Table 5: Accountability system costs carried by central office (dollars in millions)

	2007	2008
Progress Reports	\$1.6	\$2.0
Learning Environment Survey	2.0	2.0
Quality Reviews	6.2	6.2
Performance Bonuses*	3.8	3.8
Inquiry Teams & Data Specialists*	14.7	17.6
Central Administrative Costs	15.1	23.1
	\$43.4	\$54.7

\*Costs carried at central office but located in schools  
Source: New York City Independent Budget Office

In addition, the NYCDOE spent \$80 million with outside contractors over three years to build the technical infrastructure to support the accountability mechanisms. The Achievement Reporting and Information System (ARIS) had a broader scope than accountability alone, but most observers, including the New York City Independent Budget Office, considered the capital and operating expenses related to the IT system part of the new accountability spending. Most of the funding to build ARIS came from private sources such as the Fund for Public Schools and did not require reallocation away from other activities.

FSF and accountability are clear examples of thinking about resource allocation from the bottom-up and top-down as an integral part of a strategy to improve performance. Both initiatives required significant political capital and reallocation which could only be mobilized at the top. From 2002 – 2008, the NYCDOE operating budget grew from \$11 billion to \$16 billion, funded mostly through increased allocations from state revenues and the city budget. Faced with a revenue shortfall for the 2010 annual budget, key elements of the accountability/autonomy exchange came under intense budget pressure. Even after a round of central office cuts and new revenue from the federal stimulus package, the shortfall for 2010 was estimated approximately \$400 million. After trimming school budgets by an average of 3%, the district still faced a shortfall of almost \$200 million.

Klein implemented a freeze on hiring teachers from outside of the district which meant that principals were required to fill open positions with teachers who were in the “excess pool” because they had been unable to land positions in schools. As part of the autonomy/accountability exchange, Klein had allowed principals to hire candidates from inside or outside the district and without regard to seniority. To make this work, Klein had been willing to pay tenured teachers whom principals would not hire their full salaries even

though they were not working in classrooms. This decision has reportedly cost the district as much as \$200 million annually, which Klein was willing to cover centrally to meet his commitments to principals<sup>17</sup>. But in the face of nearly \$200 million gap after meaningful cuts had been made elsewhere, paying more than 1000 teachers for not working while hiring others from outside the system was no longer tenable at that scale.

Principals, however, appeared to be resisting Klein's requirement to hire from the pool. In mid-September 2009, two weeks into the new school year, schools still had 1100 teacher vacancies even though there were 1500 teachers in the excess pool, suggesting that principals would rather leave a spot unfilled than hire a teacher they did not want. In a letter to principals on September 16<sup>th</sup>, Klein set a deadline of October 30 for principals to fill the openings from the excess pool or lose funding for the positions. Klein asserted that these measures were necessary to "control costs." "Nobody dislikes this situation more than I do," Klein wrote to principals. "Limiting your hiring freedom goes against what I stand for, but because of the economic reality we must control costs and protect our schools from deeper budget cuts."<sup>18</sup> Klein faced and was willing to take Drucker's most painful step. In November 2009, the DOE began reducing school budgets to account for the loss of open teaching slots principals had refused to fill from the excess pool.

### **A Framework for Achieving Coherence between Strategy and Resource Allocation**

The cases of San Francisco, Montgomery County and New York City share many common elements. One obvious similarity is that the superintendents had a clear strategy for improvement in place *before* they faced budget challenges. It is true that budgets grew in MCPS and NYC during the period examined in the cases, but per pupil spending in NYC

grew slower than the rate of inflation and spending in San Francisco actually contracted in nominal and real terms. Spending per pupil in MCPS grew a bit faster in the early years than in the later years. Revenue reductions hit San Francisco by 2005 and MCPS and NYC in 2008, requiring the superintendents to protect key initiatives by cutting spending on activities that were less central to their strategies.. (Table 6). Even before the revenue reductions, each leader prioritized resource allocation as a critical component of implementing their strategy through the WSF, Red Zone/Green Zone and FSF mechanisms. These changes were not driven by financial pressures, but rather by a strategic insight about how to use existing resources more effectively to drive results for students.

Table 6: Comparative Compound Annual Growth Rates during time-span of strategy

	CAGR of per student spending	U.S. Inflation*
SFUSD ('02-'06)	0.14%	2.89%
MCPS ('00 – '08)	3.06%	2.83%
NYCDOE ('02-'08)	2.81%	3.04%

\*Inflation is determined by calculating the CAGR of the Consumer Price Index over the relevant period

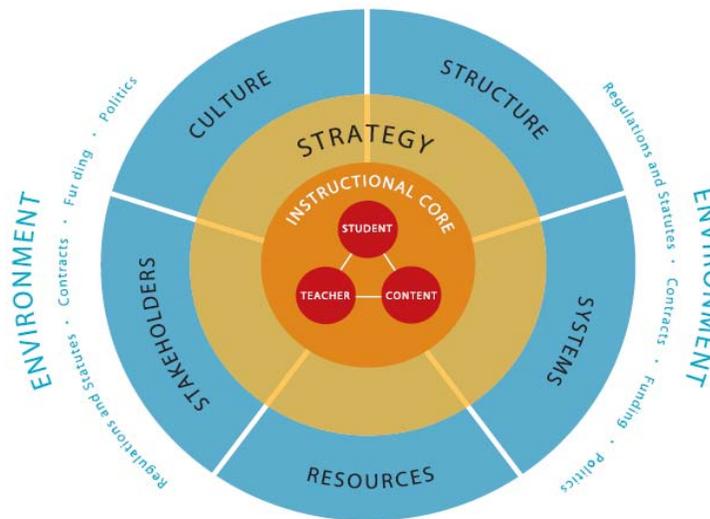
Sources: U.S. Census Bureau, NYC Independent Budget Office, Montgomery County Public Schools, Bureau of Labor Statistics, author analysis

When budget challenges did emerge, the leaders had a clear rationale for making cuts that could be explained in terms of the existing strategy. The cuts were not easy or popular, but they were defensible based on the theories of action at work in each city. Developing a strategy and allocating resources coherently might sound like common sense, but the examples highlighted in this chapter are not common practice. Of the twenty districts we studied in a PELP, we saw evidence of this approach in only a few, including those in this chapter. In this final section, I describe a framework I developed with PELP colleagues to help others understand how leaders such as Ackerman, Weast, and Klein develop and

implement effective strategies. The chapter closes with three recommendations for putting the ideas into practice.

The PELP Coherence Framework operates from the inside-out, prioritizing the teaching and learning that happens in the instructional core as the most important work in a school or district (See Figure 1).

Figure 1: PELP Coherence Framework<sup>19</sup>



Leaders should develop a theory of action about how to maximize student learning and implement the theory through a strategy that is based on clear cause and effect relationships. In San Francisco and New York City, the superintendents believed that if principals had control over resources that flowed to them based on their students' needs, then they would make better decisions than the central office given the proper incentives and supports. In Montgomery County, Weast's theory was a little different. He believed that if the central office distributed more resources to the struggling schools that needed them most and mandated K-12 standards and curriculum, then principals would adapt their schools' delivery

of the curriculum to meet the standards even though their control over spending did not increase significantly. The basic premise of the framework is that district teams should organize various elements of the district to support the effective implementation of the strategy. The vignettes in this chapter focus specifically on the leaders' resource decisions, but they were working simultaneously in the other areas of the framework as well, redesigning systems and structures, changing the culture, and managing stakeholders. The key is that their actions were guided by an overarching strategy that was based in a cause-and-effect logic. This is sound advice for other district leaders. Below are three additional recommendations based on evidence from the cases, focused specifically on resource decisions.

1. Your strategy must be backed by a resource plan. If it is not, you don't have a strategy.

The three leaders from the cases saw resource allocation as a key part of their strategy rather than as a secondary set of choices. Each leader identified resource disparities as one of the root causes of the problem they were trying to solve. The animating assumption behind the WSF, FSF, and Green/Red Zone investments was that some students need *more* in order to reach high standards – more time, more support, more attention – all things that cost more money. As described earlier, each also had a clear sense of the cause and effect relationships between their activities and the outcomes they desired. The concept model in San Francisco is a good illustration of this. These logic models help leaders integrate resource decisions into their strategic intent. When cuts were necessary, these models helped them decide what *not* to do. As Bower's research suggests, without a clear plan for allocating resources, an organization's actual strategy is determined by the uncoordinated decisions of many

managers. Ackerman, Weast and Klein integrated strategy and resource allocation in ways that allowed them to more effectively implement their intended strategies.

2. Don't get trapped by the decentralization dogma.

Mechanisms such as the WSF and FSF were designed to help optimize performance at the school level by giving differentiated resources and decision-making authority to principals. But each superintendent also made top-down resource decisions to accelerate the strategy, consistent with the circumstances described earlier on page six. When systemic barriers to improvement exist, no single school can make size of the investment required to remove them. Interventions such as mandatory full-day kindergarten in Montgomery County, the creation of the IRF role in San Francisco, and funding the salary of “excess” teachers in New York were instrumental to ensuring that system-level capacity was greater than the sum of the capacities of the individual schools. Similarly, each case had an example of the power of central decision-making when existing customers and investors were happy with the status quo: reducing spending growth in the MCPS Green Zone, cutting spending on existing programs for low-income schools in San Francisco, dismantling first the 32 and then the ten regions in New York. Each of these decisions freed up resources for new strategic initiatives. And when disinvestment was required, the will to abandon spending decisions for the good of the system was marshaled centrally: deferring pay in MCPS, the elimination of components of the STAR intervention, and the change in the excess teacher policy in New York. Creating a frame for resource allocation that includes a thoughtful, dynamic blend of bottom-up and top-down decisions is more likely to maximize performance at the school level as well as system-wide, especially when revenues decline.

3. If your strategy requires you to play Robin Hood, don't alienate those whose pockets you pick. You might eventually run out of other people's money.

As Ackerman, Weast and Klein sought to optimize system-level performance, their resource choices were aimed at adding capacity to struggling schools without reducing capacity at stable or high performing schools. STAR reallocated funds from other pools of money for low-income or low-performing schools rather than lowering the WSF for students who attended better performing schools. Spending levels in Montgomery County's Green Zone never decreased. In fact, they grew every year to keep up with increases in teacher compensation, but slower than inflation. The Red Zone grew much faster. In New York City, even with the explicit equity goals of the FSF, Klein was careful to implement "hold harmless" provisions so that well-resourced schools would not experience disproportionate cuts to pay for increases in under-resourced schools. One interpretation of these actions could be that these leaders engaged in the layering behavior described at the beginning of the chapter, unwilling to take Drucker's most painful step. Rather than cut old spending to pay for new initiatives, they simply added more costs. Another way to interpret it, however, is that their decisions were aligned with ethical approaches to narrowing achievement gaps. Skeptics sometimes worry that districts will lower performance at the top so that closing gaps will be easier. My observations of districts around the country have produced no evidence of intentional behavior of this sort. Districts strive to raise performance for students at the top while accelerating performance even faster for students at the bottom, and Ackerman, Weast, and Klein attempted to make system-level resource decisions that were consistent with this aspiration. And politically, the optics of cutting costs in affluent, high tax-bracket neighborhoods in order to increase costs in less-affluent, lower tax-bracket neighborhoods could derail the overall goals and strategy in these districts. The ongoing fragility of the

Green Zone/Red Zone compact in Montgomery County is a testament to this challenge. When real revenue reductions occur, it is likely that cuts to activities that serve more affluent families will follow. If leaders alienate these stakeholders with their approaches to resource allocation when budgets are flush, they will find it even more difficult to preserve key strategic investments during financial crises.

Given the rarity of the strategic approaches to resource allocation described in these pages, it is clear that district leaders need more guidance and tools to help them make better decisions and manage the consequences, particularly when they are under enormous fiscal pressure. This chapter only scratches the surface of these important issues; ideally it will be part of a growing body of knowledge about how to strategically allocate scarce resources to maximize student performance.

## Endnotes

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- <sup>1</sup> Peter Drucker, “Managing for Business Effectiveness,” *Harvard Business Review* (May-June 1963).
- <sup>2</sup> This deceleration in growth rates and subsequent decline in revenues hit California districts earlier than those in the rest of the country due to the way the state’s school funding mechanisms operate.
- <sup>3</sup> For a list of case studies developed by PELP faculty members, see <http://www.hbs.edu/pelp/casestudies.html>
- <sup>4</sup> William Ouchi, *Making Schools Work* (New York: Simon and Schuster , 2003) and *The Secret of TSL\*: The Revolutionary Discovery that Raises School Performance* (New York: Simon and Schuster , 2009)
- <sup>5</sup> Joseph L. Bower, *Managing the Resource Allocation Process* (Boston: Harvard Business Press, rev ed. 1986)
- <sup>6</sup> Among others, such notables as Robert Burgelman, C.K. Prahalad, and Clayton Christensen replicated Bower’s findings.
- <sup>7</sup> Joseph L. Bower and Clark G. Gilbert (eds.), *From Resource Allocation to Strategy* (New York: Oxford University Press, 2005).
- <sup>8</sup> Donald Sull, “When the Bottom-up Resource Allocation Process Fails,” in *From Resource Allocation to Strategy*, eds. Joseph L. Bower and Clark G. Gilbert (New York: Oxford University Press, 2005).
- <sup>9</sup> Thomas Eisenmann and Joseph L. Bower, “The Entrepreneurial M-Form: Strategic Integration in Global Media Firms,” *Organizational Science* 11 (2000).
- <sup>10</sup> Clayton M. Christensen and Joseph L. Bower, “Customer Power, Strategic Investment, and the Failure of Leading Firms,” *Strategic Management Journal* 17 (1996).
- <sup>11</sup> Donald Sull, “No Exit: The Failure of Bottom-up Strategic Processes and the Role of Top-down Disinvestment,” in *From Resource Allocation to Strategy*, eds. Joseph L. Bower and Clark G. Gilbert (New York: Oxford University Press 2005).
- <sup>12</sup> The descriptions of the STAR strategy and resource allocation in this section are adapted from Stacey Childress, “The STAR Schools Initiative at San Francisco Unified School District,” PEL-039, Harvard Business School Publishing , 2006. All direct quotes from Arlene Ackerman and other SFUSD staff members are from this case.
- <sup>13</sup> This section draws heavily on two pieces: Stacey Childress, Denis Doyle, and David Thomas, *Leading for Equity: The Pursuit of Excellence in Montgomery County Public Schools*, (Cambridge: Harvard Education Press, 2009); and Stacey Childress, “Six Lessons for Pursuing Excellence and Equity at Scale,” *Phi Delta Kappan*, November, 2009. All direct quotes from Jerry Weast are from *Leading for Equity*.
- <sup>14</sup> The section draws on Stacey Childress, “Focusing on Performance at the New York City Department of Education,” PEL-054, Harvard Business School Publishing, 2008 (rev. ed.) All direct quotes from Joel Klein originally appeared in this publication unless otherwise noted.
- <sup>15</sup> William Ouchi, *The Secret of TSL: The Revolutionary Discovery that Raises School Performance* (New York: Simon and Schuster, 2009)
- <sup>16</sup> Ana Champeny, “New Funding Formula Seeks to Alter School Budget Disparities,” New York City Independent Budget Office Fiscal Brief, October 2007.
- <sup>17</sup> Jennifer Medina, “Amid Hiring Freeze, Principals Leave Jobs Empty.” *New York Times*, August 28, 2009
- <sup>18</sup> Joel Klein, letter to principals, September 16, 2009
- <sup>19</sup> Stacey Childress, Richard Elmore, and Allen Grossman, “Note on the PELP Coherence Framework,” PEL-010, Harvard Business School Publishing, 2005