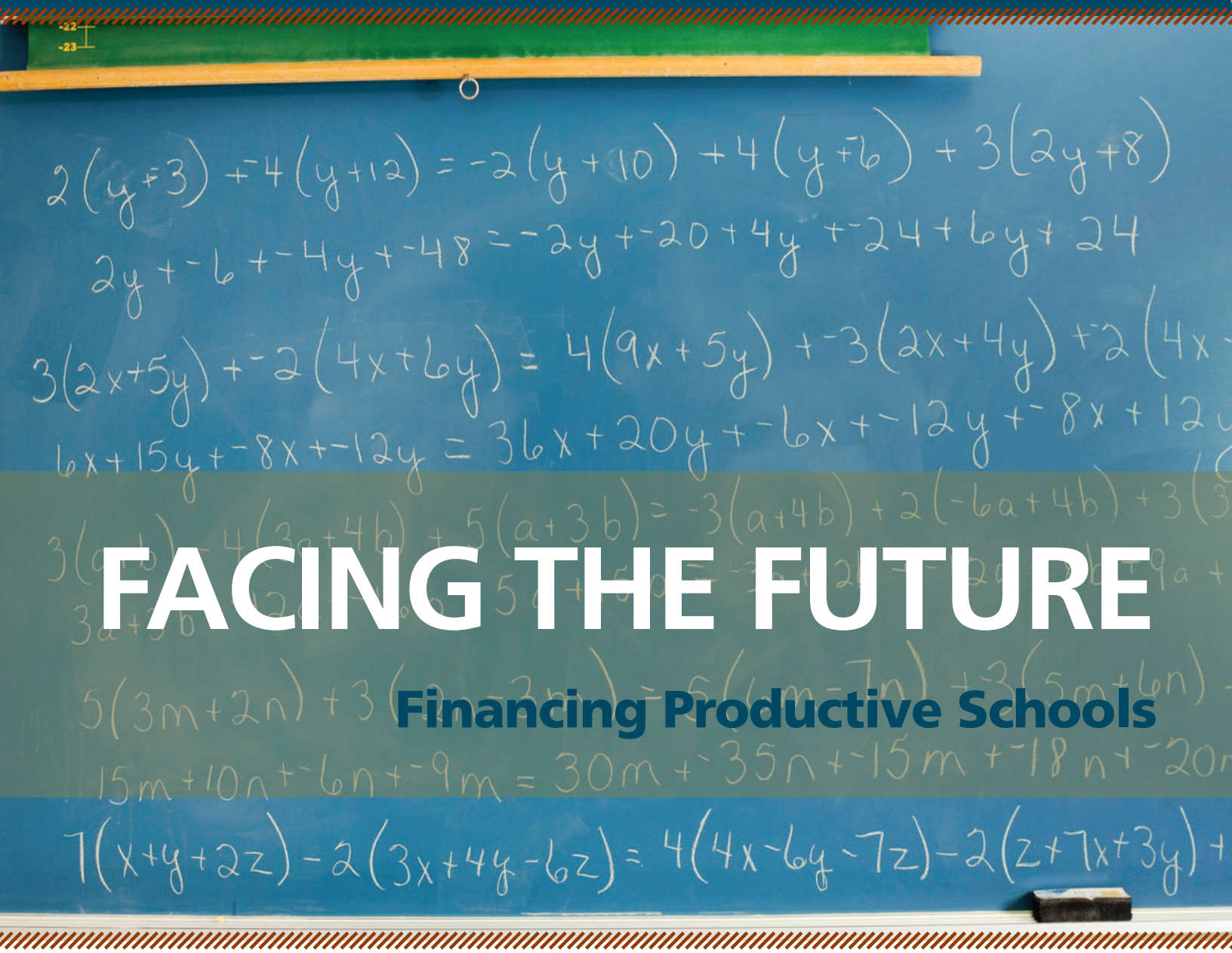

FACING THE FUTURE

Financing Productive Schools

Final Report
from the Center on Reinventing Public Education on the
School Finance Redesign Project

Paul T. Hill, Marguerite Roza, James Harvey

December 2008

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The School Finance Redesign Project

The School Finance Redesign Project (SFRP) encompasses research, policy analysis, and public engagement activities that examine how K-12 finance can be redesigned to better support student performance. The project addresses the basic question, "How can resources help schools achieve the higher levels of student performance that state and national education standards now demand?"

To see what we've learned and how that information may reshape education finance to make money matter for America's schools, visit us at www.schoolfinanceredesign.org.

Jacob Adams, Principal Investigator

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Introduction

This report is the final result of a six-year study of America's school finance system, including more than 30 separate studies at a cost of $6 million and involving an interdisciplinary team of more than 40 scholars including many of the country's best known economists, policy analysts, lawyers, and specialists in school finance, instruction, and educational innovation. All this work leads to one conclusion, that school finance today works against the focused and efficient use of resources to promote student learning.

Like an old computer that has become so laden with new applications that it can no longer do anything well, our school finance system is a product of many unrelated policies and administrative arrangements that, in combination, freeze everything up. We need a new model that is optimized to do one thing, that is, ensure that every child learns what she needs to become an involved citizen and full participant in a modern economy.

Today's school finance systems fund programs, employ staff, sustain institutions, and provide resources so that district and school administrators can faithfully execute the thousands of laws and regulations that have grown up around public education. But the way today's school finance systems do these things—establishing funding levels based on convention rather than need, masking actual allocations of funds, sustaining institutions whether they work or not, addressing equity in one place while ignoring it elsewhere, spending resources with little regard for results, holding adults accountable for compliance not results—tangles the connections between resources and academic goals that make money matter for student performance.

Our school finance system developed in a much different era in which programs were funded, students succeeded or failed, and nobody paid too much attention. This was sustainable then because there were jobs for people with low skills, and a healthy economy did not require that the vast majority of workers be well educated. But that legacy is unworkable in an era in which low-skilled workers are doomed to poverty and workers overseas can compete effectively for skilled jobs that were once available only to Americans.

What we have now is a finance system that is focused on maintaining programs and paying adults, not on searching for the most effective way to educate our children. This system doesn't fit America's needs. We have not figured out how to educate the growing number of poor and minority children effectively, but we finance and control schools as if we knew exactly how. Schools must adapt to the needs of a fast-changing economy, but our financing

system ties up funds for the same courses and modes of teaching developed generations ago. Schools need to experiment with technologies that might change teacher and student work, but the financing system forces them to spend all their money on a fixed set of organizations, programs, and people.

Those realities clearly impede the nation's ability to use resources strategically, effectively, and accountably. Our children deserve and need a good education and we must do everything possible to provide it. However, no matter how concerned Americans are about education, the reality is that spending will always be finite, and schools will never be able to afford absolutely everything that some educator might find a way to use effectively. Rising costs and competition with other sectors (for example, health care, public safety) inevitably put education in a squeeze. Even if we could double or triple spending on public education, it would still be important to make sure every dollar counted. Otherwise, it would always be true that Americans—parents, taxpayers, and educators—would be doing less for our children than the money available allows. Thus, no matter how much money is available to pay for schools, there will always be a need to use it as effectively as possible.

Recognizing the complexity and subtle nature of both the problem and the systems responsible for funding schools, the Center on Reinventing Public Education proposed a multi-year applied research and development strategy to the Bill & Melinda Gates Foundation in the summer of 2003. The School Finance Redesign Project (SFRP) would have four goals:

1. Provide an empirical basis and policy options for redesigning the nation's K-12 school finance systems to support student performance.
2. Integrate research with state policy initiatives.
3. Educate the audiences that influence school finance policy and practice.
4. Craft implementation tools for practitioners.

This final report integrates the project's findings on the first three of these objectives. The fourth (implementation tools) is partially covered in a series of working papers commissioned by the project between 2003 and 2007 and is proposed as the major focus of follow-on work in 2008-09.[1]

A companion report has also been issued by the National Working Group on Funding Student Learning, a group of distinguished scholars and practitioners asked to provide

1. See papers in Appendix B by Richard Brandon; Stephen Frank and Karen Hawley Miles; and Diana Sharp and John Bransford.

expert views on the issues SFRP has addressed.[2] Jacob Adams, Founding Director of SFRP, convened and led this group and drafted its report.[3]

The two reports are different in that the Working Group Report represents a consensus vision hammered out among experts with different points of view, while this report provides a broader context and more direct links to SFRP's research. This report also provides much more explicit treatment of key ideas like continuous improvement and performance-based accountability. However, the bottom lines of both reports are the same. As the Working Group Report argues:

> *. . . For a quarter century, America's schools have been searching for student learning and falling short. The sum of new finance-oriented legal theories, legislative actions, analytic perspectives, and management decisions has not closed the gap between the nation's educational ambitions and student accomplishments. In fact, spending increases have outstripped achievement gains, and new funding programs have not propelled students over the performance bars set by states. It seems that the connection between resources and learning has been growing weaker, not stronger.*
>
> *A basic flaw in these improvement efforts is that they look to the education finance system for solutions when the system itself is the problem . . . . State education finance systems were not designed with student learning in mind, nor have the superintendents and principals who manage educational resources been trained to make the strategic connection between resources and learning one would expect in a learning-oriented system. What's more, because of the way these systems operate, elected officials, educational leaders, and the public are equally hard pressed to know how resources actually have been deployed or the ways they may (or may not) contribute to learning.*
>
> *The bottom line is that education finance needs to be redesigned to support student performance. To get there, a more fundamental analysis and approach to resource management is needed, one that steps back from incremental funding increases, new programs, and conventional practices to tackle the more basic question: How can resources support the nation's ambitions for student learning?*

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2. Members are acknowledged in Appendix A.

3. See the National Working Group on Funding Student Learning (2008).

All of SFRP's work comes together in four recommendations for a new school finance system optimized to promote student learning:

1. Drive all funds to schools based on student counts.
2. Keep linked data about uses of funds and results.
3. Encourage innovation and experimentation.
4. Hold schools and districts accountable for student performance and continuous improvement.

Together these recommendations would both permit and demand relentless innovation and school improvement, building on what works and eliminating what does not. They would also transform states and local school districts into managers of diverse portfolios of schools, constantly changing in light of evidence about performance.

When an old computer becomes overloaded and incapable of doing what's asked of it, the best solution is to switch to a new model built to handle the work that must be done. The transition can cost some money and require users to learn new methods. But the alternative, continuing to increase the complexity of tasks that must be done by a system that was built to work in simpler times, is worse.

Like an outdated computer, our school finance system was not built to support today's work: making sure all students learn what they need to be competent, productive adults. Further tinkering with the same old system is not likely to make it work better, but could overload it further and thus make things worse. We suggest how states, localities, and even the federal government can switch to a more productive new system.

CHAPTER 1.
The Broad Shape of Public School Finance

Because school finance is where politics, funding, and educational programming come together, it is both complex and challenging. By "school finance" we mean that field of public finance that is concerned with paying for K-12 public education.

Schools are operated by districts and funded by a combination of locally raised property/levy monies, state tax revenues, and federal dollars targeted to certain students and programs. Funds, in effect, trickle down to the school level, passing through the agency hierarchy along the way. By the time the funds reach the school they have been assigned to and are accounted for by those in charge of policy and management, they arrive in "resource units." District officials divide up the units. School-level personnel have only to apply them to their assigned purposes: instruction, curriculum, school materials, and the like. That is to say that a school is provided with "resources" instead of cash. A school might be entitled to receive, for example, a teacher for every 30 students; a guidance counselor for every 600 students; a teacher's aide for every 200 students; and an assistant principal if enrollment exceeds 600.

Two points are important about this "resourcing" approach: First, the formulas lead to "lumpy" funding. Two nearly identical schools located close to each other can be staffed quite differently, depending on tiny differences in enrollment. A school with 602 students may have a central staff consisting of a principal, an assistant principal, and a guidance counselor, while the school in the adjoining neighborhood, with three fewer students, is asked to make do only with a principal, since enrollment below 600 does not trigger assignment of an assistant or a counselor. The former school might also have one more teacher, if its district follows the common practice of allocating one teacher for every 20 pupils.

Second, schools have very little discretion over how the money allocated to them is spent. This prevents principals and teachers from making sensible trade-offs among items that cost the same—say a new classroom aide or access to a new internet-based teaching tool. A typical public school receives a certain number of teachers and administrators and cannot decide, for example, to employ fewer administrators and more teachers or to use the salaries needed to pay two senior teachers and instead employ three lower-paid ones. Nor can a

school that finds itself with a junior and lower-paid teaching force use the money saved on salaries to hire more teachers or offer extra pay to attract a few senior teachers.[4]

How Much Money Is Available?

The first thing that strikes a newcomer to the discussion is that there is a massive amount of money in the K-12 system. In 2004-05, total expenditures on K-12 public education amounted to more than $499 billion for current expenditures, administration, capital outlays, meals, transportation, and debt service (Snyder, Dillow, and Hoffman 2008). These funds, just shy of half a trillion dollars, come mostly from state and local sources, but also include federal support and private contributions. They support a large and complex system made up of some 14,000 school districts, 97,000 schools, 54 million students, and 3.1 million teachers, plus administrative and support staff.

Put another way, nearly 20% of the American population is involved in K-12 education as a student, a teacher, or an administrator, and financing the enterprise accounts for about 4% of GDP.

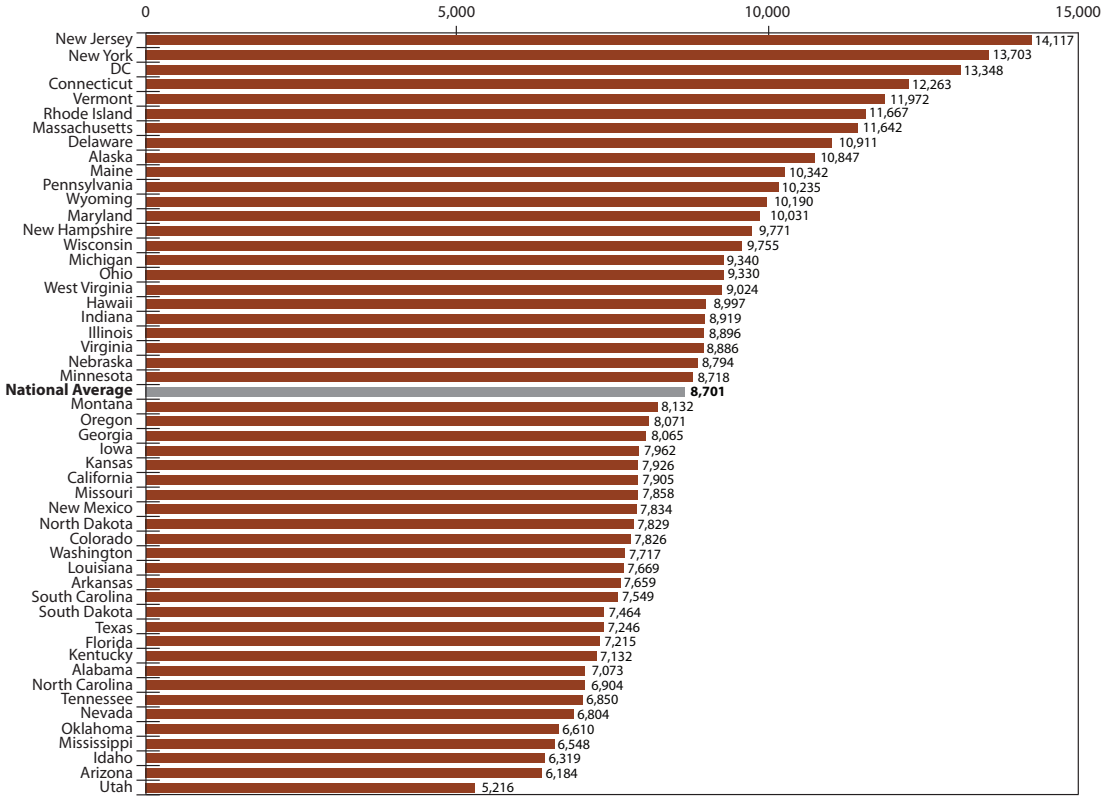
Nationally, states provide 47% of the funding; local educational agencies (acting on the state's behalf) provide 44%; and the federal government provides about 9% (Snyder, Dillow, and Hoffman 2008). Excluding Hawaii (which is a single-district state), the highest proportion of state support is found in places like Vermont (85%), Minnesota and New Mexico (both at 60%); the lowest proportion, in states such as Nevada (27%), Illinois and Nebraska at about 31%, and Missouri and South Dakota (34%) (Snyder, Dillow, and Hoffman 2008).

Spending Per Pupil

Total spending per pupil differs quite dramatically from state to state (see figure 1). At the high end of expenditure levels we find New Jersey and New York, where combined federal, state, and local current expenditures totaled more than $13,000 per pupil, on average, in 2004-05. Washington, D.C., also spends more than $13,000 per pupil. At the low end, we find Utah, Idaho, and Arizona, each spending less than $6,500 per pupil. The U.S. average in 2004-05 was $8,701 per pupil.

4. See, for example, Roza and Hawley-Miles (2006).

FIGURE 1. STATE-BY-STATE TOTAL CURRENT EXPENDITURES PER PUPIL, 2004–2005



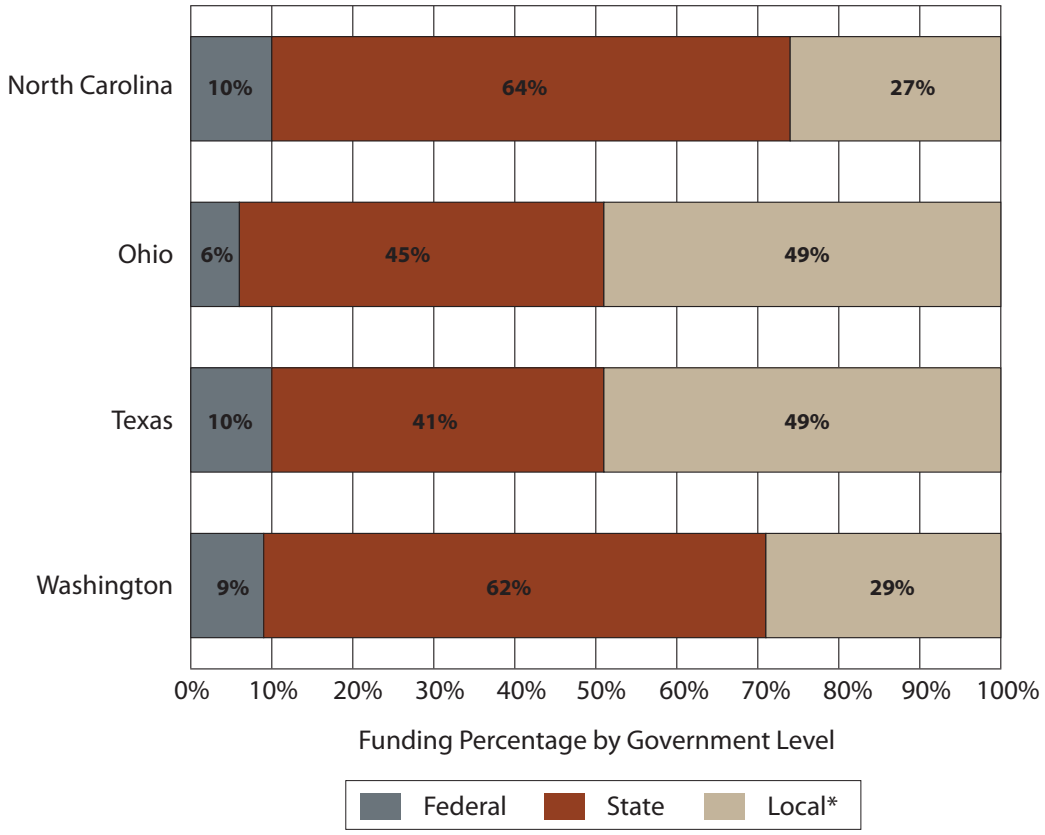
SOURCE: Snyder, Dillow, and Hoffman (2008).

These differences reflect many things—state-by-state variations in prevailing wages, cost of living, traditional size of government, and tax bases, as well as commitment to public education.

Fifty years ago, local property taxes accounted for perhaps 70-80% of school funding, with the remainder provided by states and very little provided by the federal government. Today, in an effort to equalize intrastate funding disparities, states typically cover nearly 50% of school funding.

Because state and local spending patterns differ and federal allocations are frequently tied to state per-pupil expenditures (justified as a gross cost-of-education adjustment), the proportion of funding provided by federal, state, and local authorities differs quite dramatically from state to state. Figure 2 displays the results in four states examined during the School Finance Redesign Project.

FIGURE 2. EXPENDITURE PATTERNS IN FOUR STATES



*Intermediate Revenue included in Local Revenue Total

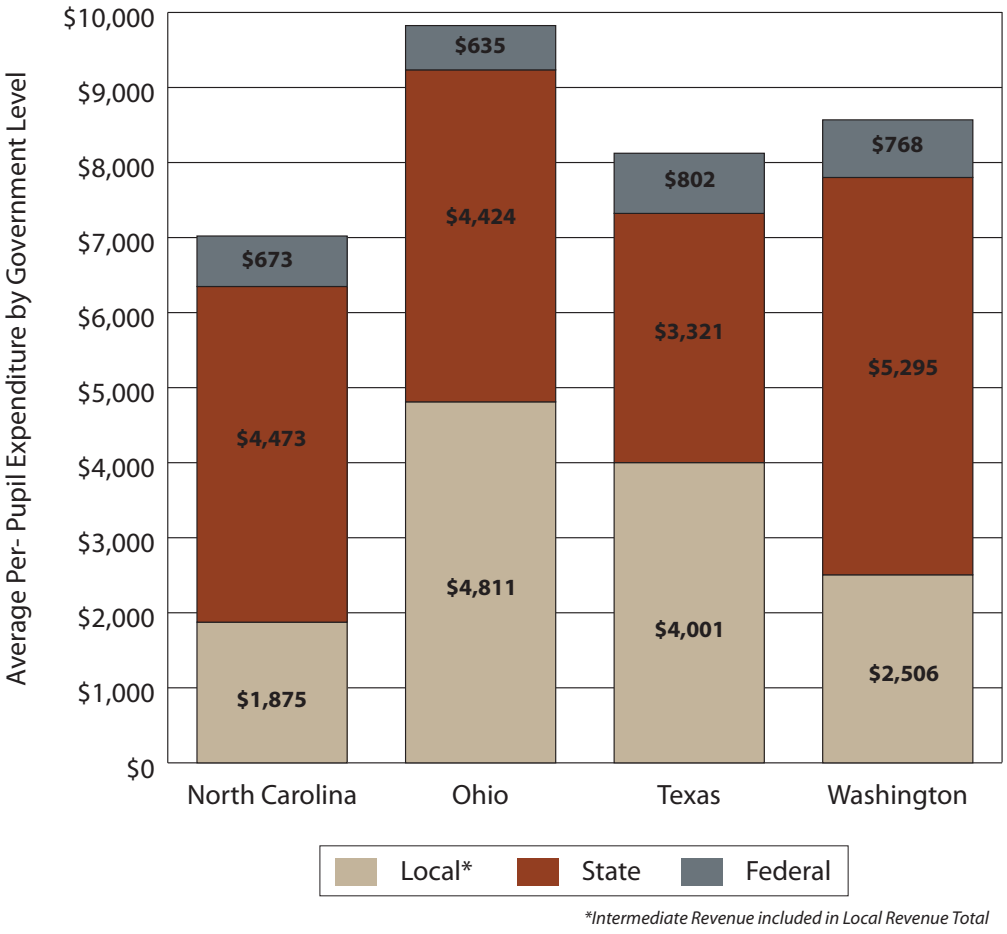
SOURCE: U.S. Department of Education (2002-2003).

In each of the four states above, the difference in the proportionate federal contribution is not great (between 6% and 10%). However, state contributions differ substantially, from 41% in Texas to 64% in North Carolina. Local contributions also vary widely, from 49% in both Ohio and Texas to 27% in North Carolina and 29% in the State of Washington.

Local funds are likely to depend on local wealth or the community tax base. The normal pattern one would expect to see is that the greater the reliance on local funds, the greater the disparity in per-pupil spending at the district level.

It comes as no surprise, then, that in the aggregate, districts in different states spend different amounts per pupil, as revealed in figure 3 below. In the four states analyzed by SFRP, average local funding ranged from less than $2,000 per pupil (North Carolina) to nearly $5,000 (Ohio), while state funding ranged from about $3,300 in Texas to nearly $5,300 in Washington. The range of federal contributions was constrained within much tighter boundaries.

FIGURE 3. PER-PUPIL EXPENDITURES, BY SOURCE OF FUNDS, IN FOUR STATES



*Intermediate Revenue included in Local Revenue Total

SOURCE: U.S. Department of Education (2002-2003).

How Localities Spend Money

How equitably do local districts disburse the money they receive? Evidence to answer this question comes from three sources: California data comparing educational expenditures in schools with low-income students and more advantaged populations; Texas data that explore the same issues; and comparisons of the per-pupil costs of regular instruction versus instruction for Advanced Placement (typically provided to more advantaged students).

Table 1, derived from California data, shows that children in low-income schools get less of the money provided by state and local sources to staff and operate schools than do children in higher-income schools. Schools with more advantaged populations have more teachers per 1,000 students, and these teachers are paid higher salaries. In addition, the wealthier schools receive larger amounts of money, per student, from funds controlled by the local school district's central bureaucracy. These differences add up, so that across California, schools in more advantaged neighborhoods receive nearly $800 more per pupil than schools with the highest proportions of poverty students.

TABLE 1. UNRESTRICTED SPENDING PER PUPIL IN ELEMENTARY SCHOOLS (Across Sampled California Districts)

Category	Low Poverty	High Poverty
Teachers per 1,000 students	44.9	41.5
Average teacher salary	$57,242	$47,545
Funds from other district sources	$1,839	$1,648
Total general fund spending per pupil	$4,409	$3,621

SOURCE: Rose, Sonstelie, and Reinhard (2006).

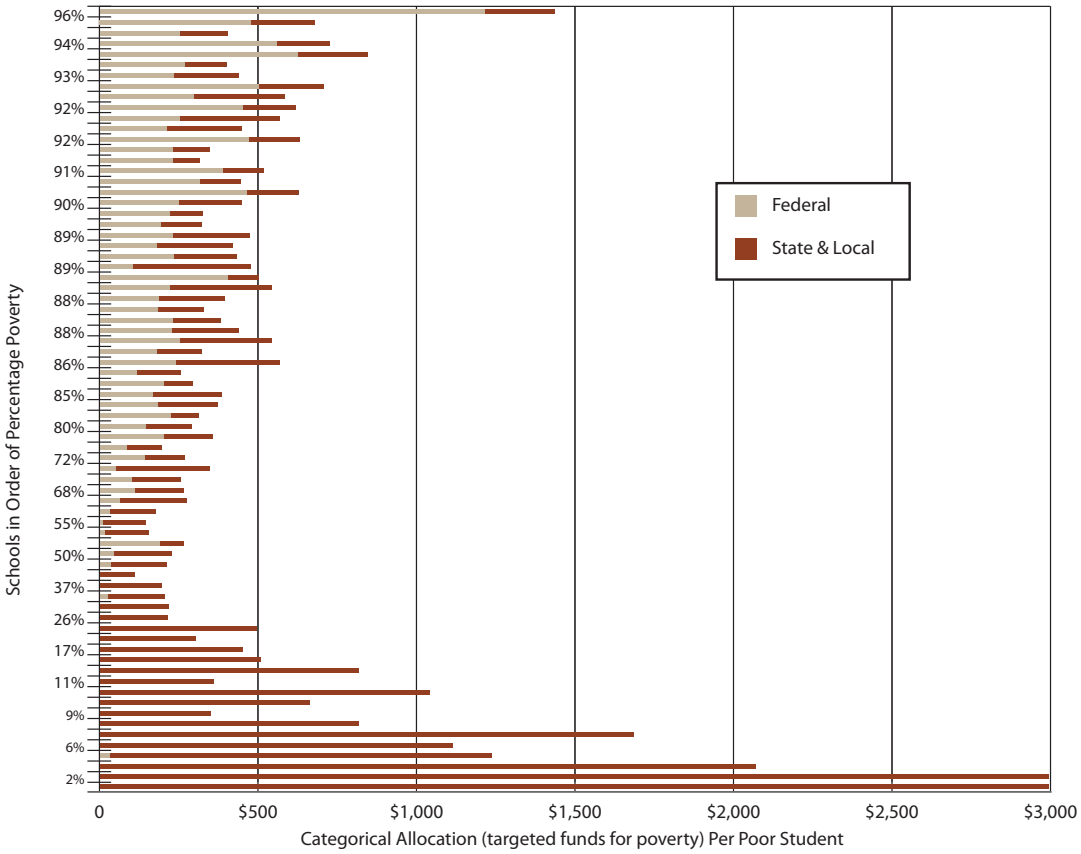
What is true in California happens to some degree in every other state and every large district. Higher-income schools attract the highest paid teachers, both statewide and within particular districts. The majority of districts allow senior teachers to choose their places of work, leading to significantly different salary expenditures between similarly sized schools. These differences are obscured in district budgets, which ignore differences in teacher salaries when reporting the amounts spent at different schools.

While low-income schools often have extra staff members paid by federal and state special-purpose categorical programs, higher-income schools often have more teachers and administrators paid from state and local funds provided to support basic school operations. Higher-income schools' greater access to basic state and local resources can more than offset any advantage low-income schools get as a result of federal programs.

Both states and the federal government also fund targeted programs, intended not to pay the basic costs of schooling but to support extra services and teachers for specific groups of students. These are called categorical programs. The best-known categorical program is the federal Title I, which provides extra funding for low-achieving students in high-poverty schools. But states also fund such programs for various target groups. Unfortunately, federal and state governments often work against one another, with state categorical programs targeting schools and students not likely to benefit from Title I.

Figure 4 shows what often happens, based in this case on Texas data. The highest-poverty Texas schools get virtually all the federal money. But they get a much smaller share of state special purpose funds than do lower-poverty schools. Thus, special state programs can more than offset the advantages high-poverty schools get from federal programs (Roza, Guin, and Davis 2008; Roza 2007).

FIGURE 4. FEDERAL AND STATE CATEGORICAL SPENDING ON POVERTY, IN ONE TEXAS DISTRICT

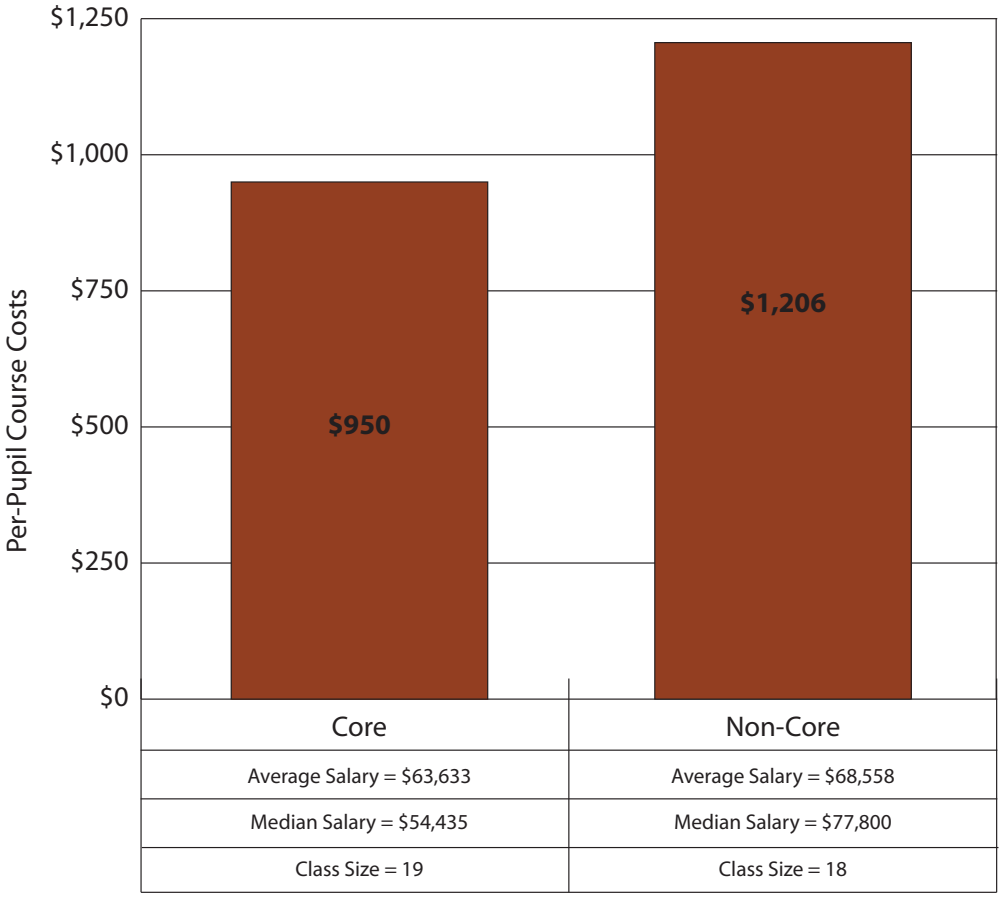


SOURCE: Roza (2007).

Finally, in a perverse outcome, our analyses indicate that schools often spend much less money per pupil on core courses like English and mathematics than on elective courses. Figure 5 shows results from one district in which students in elective courses get the benefit of more spending than students in core courses that determine high school graduation (and on which state accountability plans focus). These are new results based on Marguerite Roza's analyses of six urban and suburban districts. Results vary somewhat among the districts, but some of the worst patterns were the most persistent. Different class sizes (large classes for core courses, small classes for special electives), teacher salaries (senior teachers can claim the elective courses for themselves), and different workloads (senior teachers often teach fewer courses) work together to skew spending.

District and school accounting often hide these spending patterns. Most district leaders express surprise when shown numbers like these and say they would not have chosen to allocate their dollars in these ways. But district leaders and principals are often unaware of how much they are spending or what other uses might be made of the same funds.

FIGURE 5. PER-PUPIL COSTS BY COURSE TYPE



SOURCE: Roza (2008b).

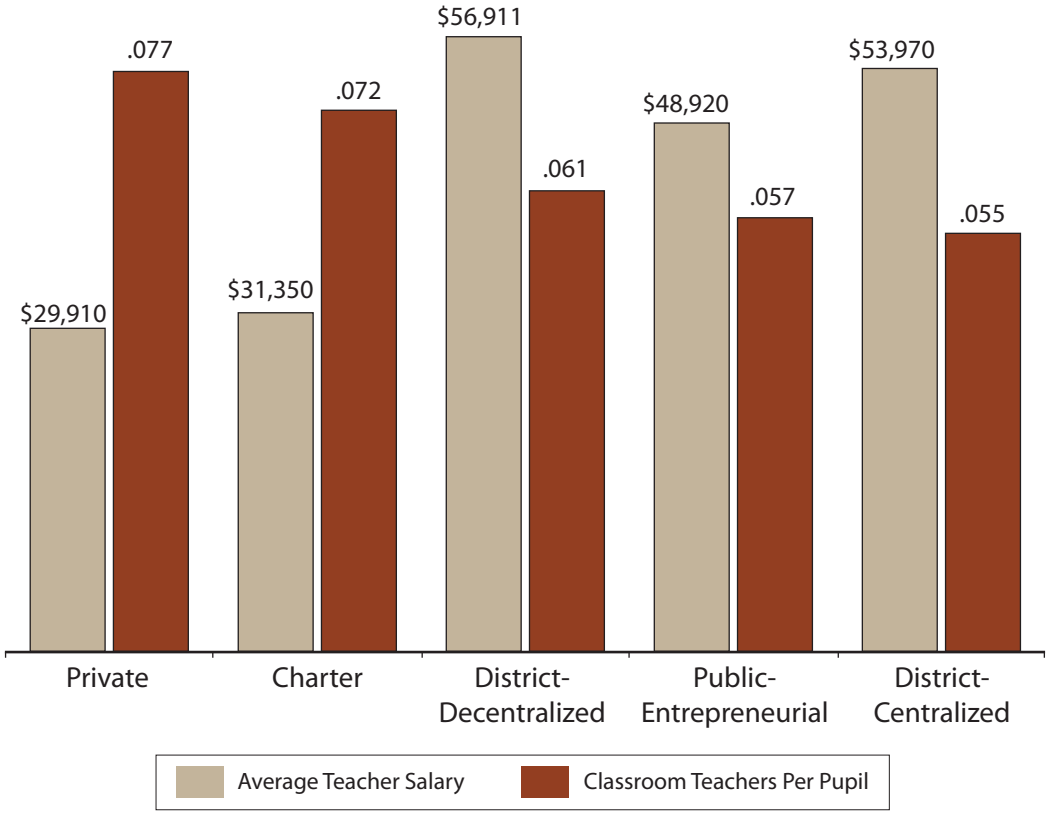
Principals and teachers would often make different choices about use of the same money if they could. We studied schools in which principals have different degrees of control over spending (Roza, Davis, and Guin 2007). As figure 6 shows, principals with the greatest control over funds, such as those in private, charter, and district-decentralized schools, hire larger numbers of teachers but pay lower salaries on average than principals in district-run schools, who have no choices about whom to hire. Our study also showed that principals

who have greater control of funds also focus their spending on generalist classroom teachers and part-time teachers and, relative to district-run schools, employ fewer administrators, classroom aides, and full-time specialist teachers.

Studies from the United Kingdom also show that funds are used differently when school heads—who feel responsible to tailor instruction to their current students' needs—gain control of spending decisions (Levacic 1999).

Another SFRP-sponsored study shows that teachers, if they had choices about how to use funds, would often choose salary increases over equal-cost alternatives like extra time for a classroom aide or a slight reduction in class size (Goldhaber and DeArmond 2008).

FIGURE 6. EXPENDITURE PATTERNS IN DIFFERENT KINDS OF SCHOOLS



SOURCE: Roza, Davis, and Guin (2007).

Overall, we have a system in which so much is controlled by decisions made in the past, sometimes for reasons and on behalf of people who are no longer in the system, and at such a distance from schools, that educators have scant flexibility to adapt to the needs of here and now. Teachers and principals, the people whose work the whole system is supposed to support, get complexity and constraint rather than help. In the meantime, the costs of everything are hidden, and people who would like to make trade-offs in pursuit of more effective schools cannot do so.

Our school finance system has:

- a lot of money in it;
- considerable diversity in how much is spent, per state and per district;
- great complexity in terms of the financial interactions between states and localities and the federal government;
- patterns of inequitable distribution of state and local funds;
- federal programs that only partly compensate for inequities in state and local fund distribution;
- course funding practices that provide higher-paid teachers and smaller classes for students in elective classes; and
- complex expenditure patterns at the local level that cannot readily be tied to student outcomes.

Finance System Is a Product of Competing Agendas, Intergovernmental Competition

In light of the patterns reported above, it is essential to understand that state and federal legal and regulatory frameworks, some built for education and others created for other purposes entirely, govern the transfer and expenditure of funds from the federal to the state to the local levels. They include complex administrative, budgeting, and auditing requirements and procedural and accounting specifications that affect school districts as well as state and county governments.

In combination, these elements form a powerful triangle within which legislators (creators of the public laws), the executive branch (including budget and auditing offices), and agency officials (the source of regulations implementing legislation) tie the hands of states, school districts, and schools. Typically they call for:

- uniform application and enforcement of regulations;
- plans for the expenditure of funds in accordance with the law, under control of public agencies, and in ways that can be monitored and audited;
- disbursement of, and accounting for, funds in ways that can be attributed to particular programs but cannot easily be traced to any particular school, classroom, or student;
- detailed record-keeping requirements, often tied to the purposes for which the funds were disbursed; and
- internal auditing standards that ensure control of funds, assessment of risk, and ongoing monitoring.

These requirements, with their emphasis on compliance and control, make sense as ways to structure intergovernmental relations. Local educators are not inventing excuses when they explain their actions in terms of compliance; higher levels of government (for example, Congress) require assurances that funds are spent for the purposes designated.

This accumulation of requirements establishes a federal-state regulatory maze that local budget managers and educators are required to navigate. It holds recipients and subrecipients accountable for particular uses of public funds and for following directives regarding recordkeeping, audits, and accounting of funds.

However, none of these requirements guarantees that funds will be used efficiently, equitably, or in ways that contribute the most to local school effectiveness. State, local, and district officials often claim that the requirements prevent the most productive uses of funds.

One issue that a reformed school finance system would need to address is this regulatory structure and the changes that would be required in it. It is, for example, unlikely that most school principals would have the time, training, or inclination to master this regulatory maze well enough to find ways to be both innovative and compliant.

Even funds raised at the local level are strictly regulated. Most of the dollars subject to local control are allocated via teacher hiring, salary increases, and work assignment decisions, which are structured by collective bargaining agreements. School boards often enter such agreements with poor understanding of how funds are currently used and what the different parts of a teacher labor contract will cost (Roza and Carey 2007). In many recent

cases, local school boards have approved contracts with salary escalator clauses that would create significant budget deficits only two or three years hence (Lilly 2005). Boards also frequently commit to pay teacher healthcare and pension contributions that cost little in the year they are made but have major "balloon payments" later (Loeb and Miller 2007; Podgursky and Ehlert 2007). As a result, many districts have no flexibility whatever in the ways they use locally raised funds.

Districts also have a great deal of difficulty knowing where their money is or what things cost. This is so in part because districts keep separate accounts for things that are necessarily mingled together to run a school or deliver any instructional service. Thus, costs of salaries, benefits, facilities, technology, and private contracts for services are often kept in separate data systems, making it difficult to know the combined costs of any given resource or activity. The practice of keeping accounts district-wide means that it is almost impossible for district leaders to know exactly how much is spent on a particular school from the salary, benefits, or technology accounts and therefore what is spent overall on any school.

The metaphor used in the introduction—that of a computer overloaded with applications for which it was not built and which compete for core time and interfere with one another's operation—is apt here.

CHAPTER 2.
Expenditures and Results

The preceding chapter pointed to a system spending half a trillion dollars, yet creating inequitable intrastate and intradistrict fund distribution and failing, despite announced intentions, to provide the greatest financial resources to students in the greatest need.

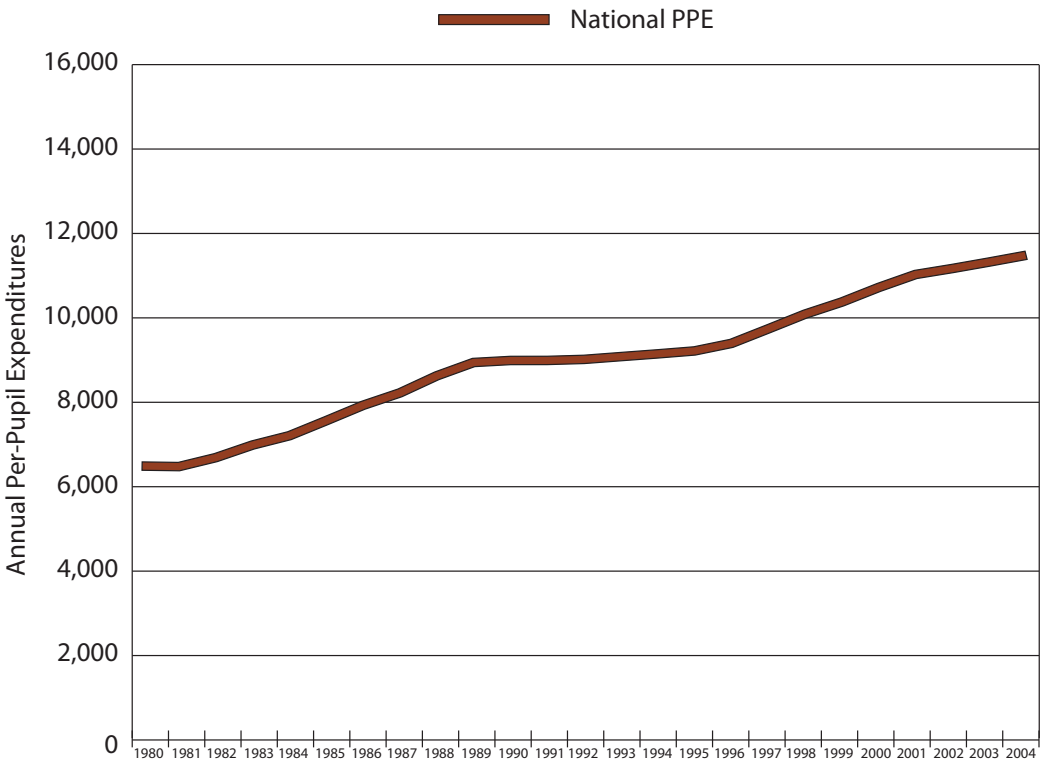
In the past, legal challenges to this system have focused on disparities in providing interdistrict fiscal equity (Warner-King and Smith-Casem 2005). More recently, intradistrict or subdistrict studies have questioned the importance of district-level spending differences, showing that there is more variation in per-pupil spending within than between districts (Roza, Guin, Gross, and DeBurgomaster 2007). The subdistrict studies, in particular, point to district budgeting and allocation practices that create significant variation in spending across schools (Roza 2006; Roza 2008a; Carey and Roza 2008).

What does this society gain in return for the funds it expends?

On levels of expenditure, a fair analysis might compare per-pupil spending in 1980 (about the time a modern system of K-12 schooling, fully accessible to both minority students and those with disabilities, came fully into being) with today's.[5] During this period, total per-pupil spending grew from $6,462 in 1980 to $11,470 in 2004 (in constant 2006-07 dollars—see figure 7). Here funding grew impressively from 1980 to 1989 and remained flat throughout much of the 1990s before beginning another impressive rise as the 1990s drew to a close.

5. Public Law 94-142 (the predecessor to today's Individuals with Disabilities Education Act) was enacted in 1975 in response to significant court rulings in Washington, D.C., Pennsylvania, and elsewhere, holding that students with disabilities were entitled to a free and appropriate public education.

FIGURE 7. GROWTH IN TOTAL PER-PUPIL EXPENDITURES, 1980–2004, IN CONSTANT 2006–2007 DOLLARS



SOURCE: Snyder, Dillow, and Hoffman (2008).

Though there are arguments about whether the chart in figure 7 takes full account of factors that drive up the costs of education—like salaries, benefits, and service entitlements—it is clear that public education employs more people and provides a more extensive range of services in the current era than ever before.[6]

In that light, what about student achievement? What are we getting for what we spend? Is it true that student achievement has stagnated? What are we receiving, in the broadest terms around student achievement, for the vast amounts of money spent on American schools?

To analyze these questions, we examine the only nationally comparable student achievement results available, the National Assessment of Educational Progress (NAEP). NAEP long-term trend results are available for national samples of 9-, 13-, and 17-year-old

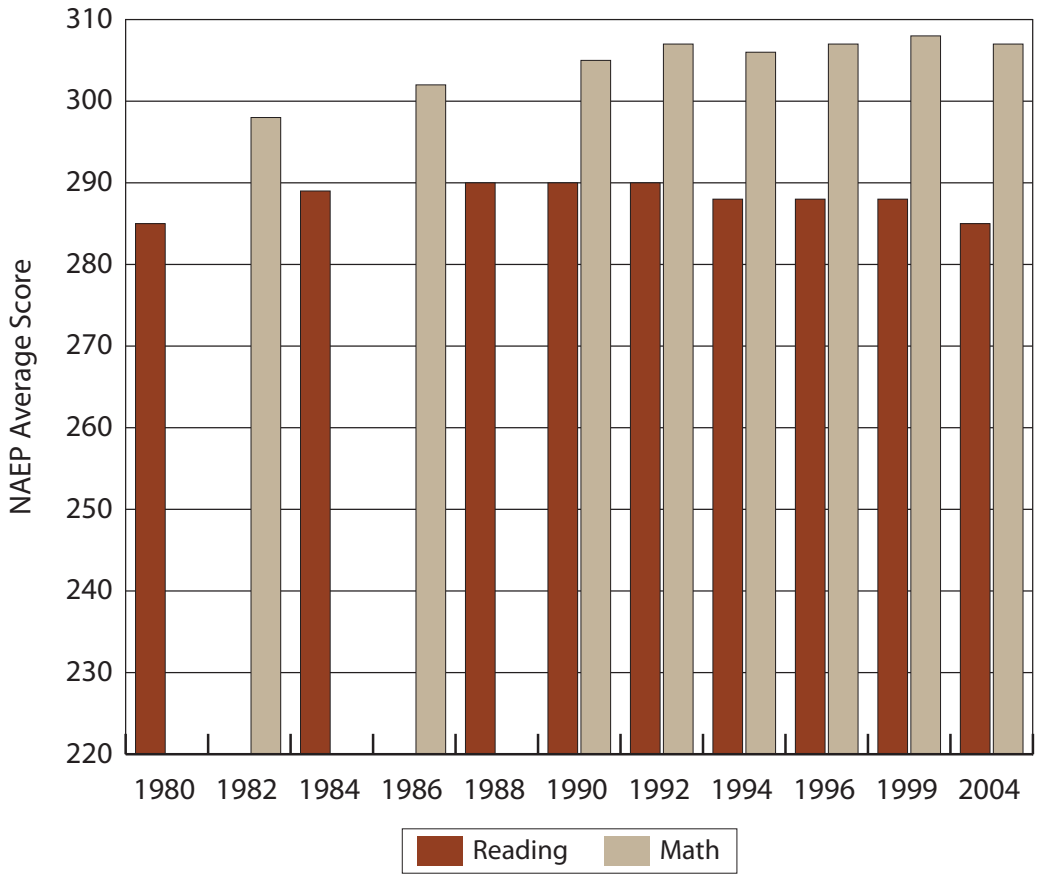
6. See also Hanushek and Rivkin (1997).

students, in several subject areas. NAEP also provides state-level results at the 4th- and 8th-grade levels.

National Results

NAEP results suggest modest improvements in mathematics achievement over recent decades, combined with stagnation with respect to verbal skill and reading.

FIGURE 8. NAEP NATIONAL RESULTS, 17-YEAR-OLD STUDENTS



SOURCE: U.S. Department of Education (2005a,b).

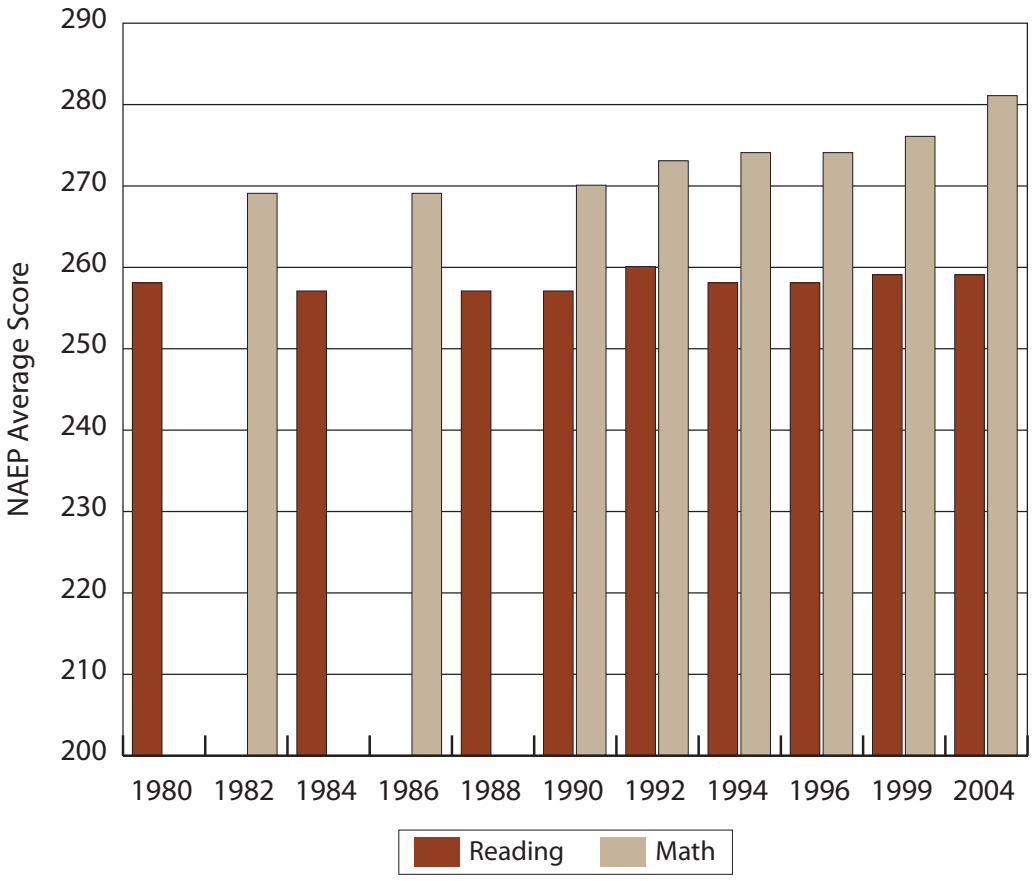
With respect to NAEP results for 17-year-old students, average mathematics scores seem to have improved modestly from around 298 in 1982 to 307 in 2004 (see figure 8).[7] For

7. For a much richer discussion of these and other NAEP score trends, see Loveless (2007).

reading scores of 17-year-old students, no change is apparent from 1980 to 2004. Both results come at a time when the face of American public education has changed dramatically, with more members of minority groups enrolled in schools, including many non-native English speakers.

The NAEP analysis for 13-year-old students is similar (see figure 9).[8] Here, reading results hover around the 260 mark, without a lot of variation, and mathematics results appear to improve, although only slightly, from an average of 269 to 281 since 1982.

FIGURE 9. NAEP NATIONAL RESULTS, 13-YEAR-OLD STUDENTS



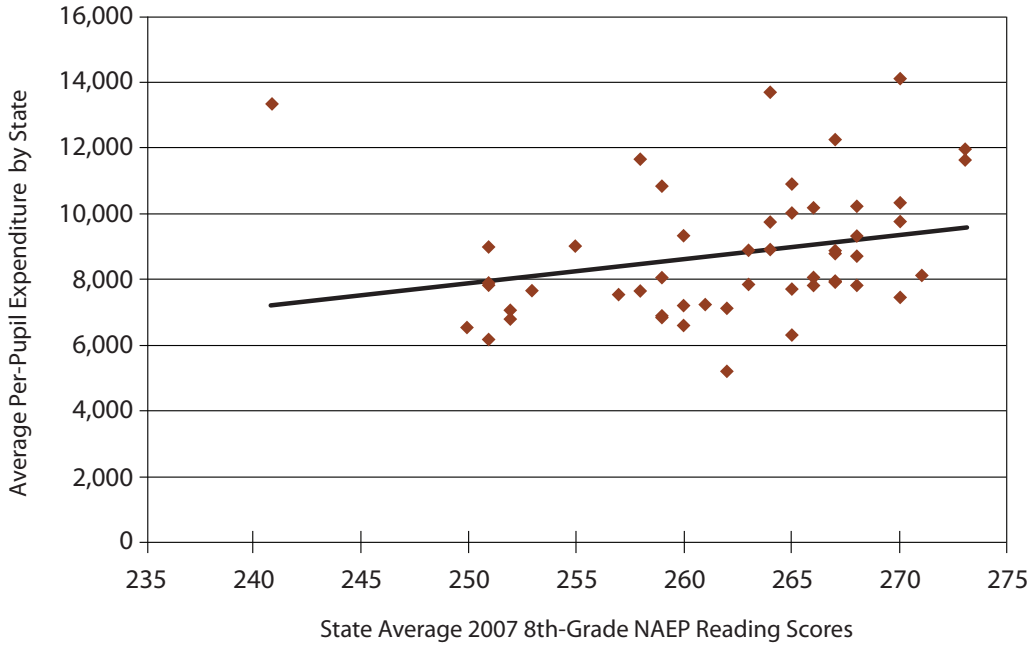
SOURCE: U.S. Department of Education (2005a,b).

8. This analysis did not examine 4th-grade NAEP results.

State-Level Results

What about the state level? What are states getting for their expenditures? Here we turned to NAEP 8th-grade results to compare state NAEP results with state per-pupil expenditures.[9] The result is a scattergram of 51 state (including Washington, D.C.) 8th-grade averages in reading, displayed in figure 10.

FIGURE 10. RELATIONSHIP OF CURRENT SPENDING PER PUPIL AND 8TH-GRADE NAEP READING



SOURCE: NAEP data from U.S. Department of Education (2008); expenditure data from Snyder, Dillow, and Hoffman (2008).

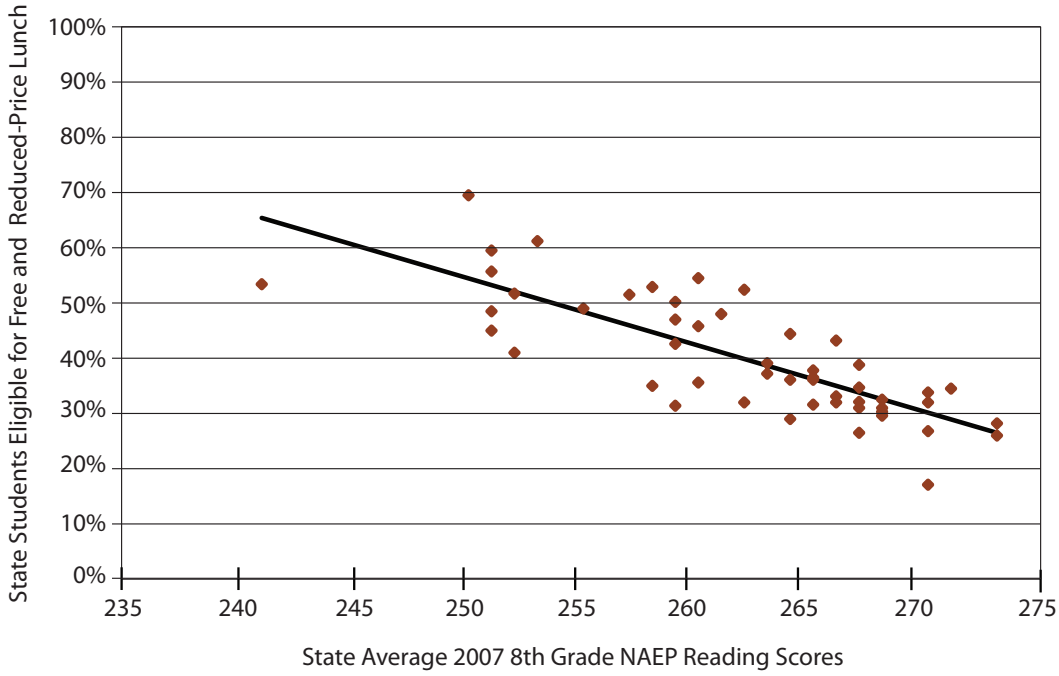
At first blush, there seems to be little relationship between high spending and average 8th-grade NAEP reading results. One jurisdiction spending in excess of $14,000 per pupil reports average scores of about 270 (close to the high end of results), while another spending more than $13,000 per pupil reports the lowest 8th-grade reading score in the nation. Meanwhile, states spending much less (between $5,500 and $8,000 per pupil) find themselves with average scores above the national average.

9. Results for Grade 8 were employed because NAEP provides state-level results for 50 states and the District of Columbia (plus American possessions) at the 4th- and 8th-grade levels, but not consistently for Grade 12.

However, a trend line drawn through the scattergram reveals a modest but real relationship between spending and results. It is impossible to say this is causal. It is conceivable that additional expenditures produce better results; it is equally conceivable that states with the wherewithal to spend more on education begin with a student population with fewer educational challenges.

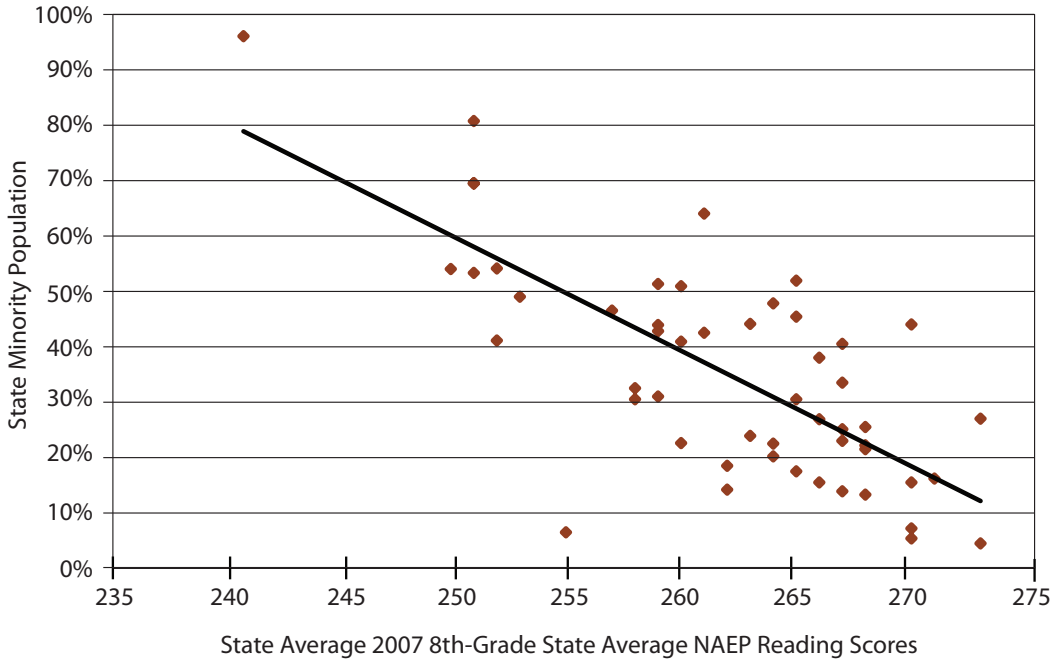
Figures 11 and 12, below, reveal what seem to be more powerful connections. Figure 11 indicates that as the proportion of low-income students in a state declines, average 8th-grade NAEP reading results increase. The converse is also true: high proportions of low-income students are associated with low NAEP reading results. This trend line is even more marked if a comparison is made between minority enrollment and achievement (see figure 12).

FIGURE 11. PROPORTION OF LOW-INCOME STUDENTS AND NAEP 8TH-GRADE READING RESULTS



SOURCE: U.S. Department of Education (2008).

FIGURE 12. PROPORTION OF MINORITY STUDENTS AND NAEP 8TH-GRADE READING RESULTS



SOURCE: Minority data from Synder, Dillow, and Hoffman (2008); NAEP data from U.S. Department of Education (2008).

Of the 20 states with NAEP results below the national average, fully 16 also spend less than the annual national per-pupil average. Just 4 low-scoring states spend more. In addition, of those 20 low-achieving states, 17 have a higher proportion of low-income children than the national average (38%); in fact, 52% of their enrollment, on average, consists of low-income students.

Meanwhile, of the 31 states with NAEP results above the national average, 24 have a lower proportion of low-income children than the national average; only 7 have at least as high a proportion as the national average. With respect to spending, 18 of these states spend less than the national average per pupil, and 13 spend more.

What seems clear is the following:

- Expenditures have increased in the last generation.
- Some modest improvements are apparent in mathematics results nationally.

- The same cannot be said for results in the areas of verbal skill and reading. Here, achievement seems to have languished.
- At the state level, there seems to be a relationship between spending and results, but it cannot be said to be causal.
- Generally, the higher the proportion of minority and low-income students in a state, the lower the average NAEP results are likely to be.

These facts provide background to the continuing round of lawsuits and state legislative struggles over school finance, in which one side emphasizes the hope that higher spending might produce more equitable results of schooling, and the other counters that spending increases don't lead to higher student performance.

CHAPTER 3.
The School Finance Debate

In response to clear inequities in interdistrict funding (within states) and claims of inadequate funding, parents, advocates, and local districts have long pursued additional funds and more equitable distribution of funds. Leaving special needs populations, such as students with disabilities and English-language learners, aside, court cases have been pursued in two directions, largely sequentially. The first wave of court cases, starting in the 1970s and running into the early 1990s, was brought on equity grounds. Plaintiffs argued that states were not meeting their constitutional obligations to provide equal educational opportunity while they supported school finance systems that permitted local expenditures to differ by a factor of 3 to 1 or more. A string of "equalization" suits at the state level stretches back to the 1970s Texas *Rodriguez* case (and accounts for much of the movement toward increased state aid noted in chapter 1 of this report).[10]

Even when equity cases succeeded in court, their ultimate results were often less than advocates had hoped. As Molly McUsic comments: "[W]hile the equity cases enjoy a number of victories in the courtroom, it has been harder to carry that victory through the legislature to the classroom. Even cases that succeeded in court (less than half of all cases filed) often fail to equalize funding or educational opportunity. Moreover, despite litigation in nearly every state over the past two decades, interdistrict disparities in the United States have not diminished" (McUsic 1998). These results led to a second wave of litigation, based on a new principle.

Many analysts date the beginning of the second wave of lawsuits, dubbed "adequacy" approaches, to the 1989 *Rose* case in Kentucky, which ended with the state Supreme Court finding the entire structure of public schooling in Kentucky unconstitutional, along with its financing.[11] The adequacy position argues that it is possible both to say what must be done to provide an effective education for all children and to determine what such an education would cost. Therefore, proponents claim, states are under an obligation to provide at least as much money as an adequate education would cost.

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10. For a review of the recent litigation, see McUsic (1998).

11. *Rose v. Council for Better Education*, 790 S.W. 2d 186 (Kentucky Supreme Court 1989).

More recently, economists have put forward an "efficiency" framework. They argue that while it may be possible to define an adequate outcome, it is impossible to state how to attain it, in part because few successful examples exist, and those that do cannot be reliably replicated. The efficiency argument also holds that it is clear the educational system does not use all existing money efficiently and that it is hard to justify a more expensive version of the same inefficient system. The efficiency argument has yet to be tested or supported in a court of law.

The politics of each of these approaches—equity, adequacy, and efficiency—are daunting. Equity sounds fine in theory, but turns out to be difficult in practice. Surveys reveal that Americans support the general proposition that all children should receive equal funding in schools, but that middle- and upper-income communities quickly shift gears when efforts to equalize funding threaten local resources. "Robin Hood" redistribution plans, which take funds away from affluent communities and transfer them to lower-spending localities, produce serious political backlashes. Yet "leveling up" approaches, by which the state raises everyone else's spending up to the level of the highest spending localities, cost more than most state treasuries can support. Adequacy is expensive and results are uncertain, both problems in a time of general disquiet about the effectiveness of public expenditures. The efficiency argument has to contend with opposition from stakeholders within the school system, along with the willingness of judges and many taxpayers to err on the side of spending more on education, rather than risk spending too little.

Equity

Equity lawsuits arrived in two ways (Briffault 2007). The first challenged disparities in per-pupil spending based on the grounds of federal equal protection guarantees in the U.S. Constitution. As described by Richard Briffault, the litigation strategy based on the U.S Constitution came to an end in the case of *San Antonio Independent School District v. Rodriguez* (1973), when the U.S. Supreme Court rejected the federal equal protection theory as it applied to schools.

A second wave of equity lawsuits was launched, grounded in state equal protection guarantees, and the second wave won a number of victories. In the landmark *Serrano* cases, for example, the California Supreme Court declared the state's school finance system unconstitutional because it made the quality of students' education depend on the property wealth

of their communities.[12] The court required the state to reduce wealth-related disparities in per-pupil expenditures. Yet, within a few short years, all of the analytical and constitutional distinctions underlying *Serrano* were set back as California voters enacted Proposition 13 in 1978. This measure set a cap on property taxes, lowered them, demanded a two-thirds majority in both houses of the legislature for tax increases, and launched a taxpayer revolt across the nation. It did all of that, but the *Serrano* decision ensured that the effect was not invidiously applied to low-income districts and schools.

As early as 1979, analysts at the RAND Corporation were pointing out that although it was apparent that spending for education was rising impressively in states where plaintiffs had won on equity grounds, reform did little to equalize the distributions of revenues or instructional expenditures (Carroll, Cox, and Lisowski 1979). Local property taxes for education declined in most states (and became significantly more equal among school districts), but reform generally did not equalize spending between rich and poor districts. The RAND analysts concluded that reform did little to equalize districts' spending outcomes and opportunities, largely because of legislative add-ons and adjustments that allowed traditionally high-spending districts to find ways to spend extra.

Adequacy

The wave of adequacy lawsuits that developed after the 1989 *Rose* case, including *Abbott* in New Jersey,[13] increased substantially after *No Child Left Behind* was enacted in 2001. Indeed, following enactment but prior to its implementation, it was clear that the legislation had made some strange bedfellows: conservatives eager to impose strict performance accountability and liberal activists eager to use its provisions to force more money into public schools (Gorman 2001).

To support the adequacy principle, scholars then worked up estimates of adequate spending. This was very difficult because no one had ever achieved the outcomes whose cost was to be estimated. Results were chaotic, often varying by billions of dollars for particular states. The Campaign for Fiscal Equity, which sought to increase per-pupil expenditures in New York City by nearly 50% to $18,000, won a lawsuit, but the legislature has not appropriated the funds. Calculations of the cost of providing an adequate education for all California

12. See *Serrano v. Priest*, 5 Cal.3d 584 (1971); *Serrano v. Priest,* 18 Cal.3d 728 (1976); *Serrano v. Priest,* 20 Cal.3d 25 (1977).

13. Abbott cases include a series of lawsuits beginning with *Abbott v. Burke* 100 N.J. 269, 495 A.2d 376 (1985).

students range from $1.7 billion to $1.5 trillion, depending on the assumptions made by analysts (Imazeki 2008). But courts in many states accepted the adequacy principle and ordered huge spending increases.

Big-money court orders in adequacy cases raised state spending by as much as 20% or even higher in some cases, but had about the same effects as the earlier equity-based settlements. Traditionally high-spending districts continued to spend more, and within-district spending discrepancies and achievement gaps remained.

In research done for SFRP, Alan Odden tried to rescue the adequacy principle by arguing that court orders should mandate uses of the extra money found by empirical research to be highly productive. However, the possible mandates identified by Odden's research, for example, lowering class size and spending more on teacher training, slightly closed but did not eliminate racial and income-based gaps in student achievement. The question remained: How much is enough to spend, and how should resources be used.

In the early 2000s, analysts from outside the school finance community realized that reaching the goal of high standards for all required rethinking of how all resources were used—both every dollar and everything dollars buy, from teacher work to student time.

In a paper developed for this study, the authors estimate that in Tennessee a more extensive set of evidence-based strategies (including universal preschool education) would appear to increase required statewide expenditures by about 8% (Brandon, Stutman, and Blazys 2007). Like the measures Odden recommended, these might improve average student performance, but they were not guaranteed to achieve the "adequacy" goal of raising all students to state standards.

Proposals linking particular instructional methods with levels of spending are where equity, adequacy, and efficiency intersect and come together. These proposals would require putting every dollar now in the system on the table for reallocation and application toward more promising, evidence-based practice. They would require profound changes in the funding practices, missions, and capacities of states and school districts, as the next chapter will show.

Efficiency

To date, the efficiency argument has been used in court as a defense against adequacy claims. The efficiency argument has three parts: The first is that there is a massive amount of money within the system already and that dramatic increases in funding over the years have not produced notable increases in student achievement. This issue was explored in the previous chapter.

The second argument is that we do not know what works (Guthrie and Hill 2007). This argument holds that research has not identified any program or level of expenditure that is consistently related to educational outcomes. Schools spending similar amounts and delivering similar programs get different results, and schools spending different amounts and delivering different programs often get similar results. Increasing expenditures using existing educational methods is not likely to improve outcomes substantially. It might be possible to understand what works best in particular situations, but our system does not allow the research and experimentation that could yield the necessary evidence.

The third argument holds that opportunities exist for redirections and reductions in expenditures without deterioration in outcomes. Here the issue is directly defined as "efficiency":

> *It seems quite clear, and the evidence supports the case, that not all school systems use their funds as effectively as others. This fact raises a serious problem if one studies spending to get at the cost of an adequate education. Should the starting point simply be the current spending, accepting whatever is being done, or should there be some attempt to deal with the inefficiency issues? . . . The importance of this is immediately obvious. If spending must be sufficient to bring up achievement regardless of how efficiently resources are used, the answer is likely to be a very large number (Hanushek 2007).*

The general proposition that the system is inefficient is also supported by evidence that categorical programs, particularly those from the federal government, magnify the inefficiencies by adding new regulations, constraining options at the local level, and building small empires impervious to local control. In part there is also a suspicion that federal programs such as Title I, the main funding mechanism of *No Child Left Behind,* allocate funds in ways that do not reverse spending disparities. The fear is that it does so in two ways.

First, federal Title I funds are supposed to supplement and not supplant local funds, and the services to be provided to target children are intended to be "comparable" before federal funds are added. The comparability regulations, however, explicitly exclude any consideration of teacher salary schedules, which can create significant spending disparities between high- and low-income schools in the same district.

Second, federal funds are typically allocated on formulas that rely on state per-pupil expenditures (as a gross measure of cost differential) and guarantee all states some minimum level of funding (to encourage widespread political support in the U.S. Senate). States with high incidences of student poverty tend to spend less per student than those with lower poverty rates. As Goodwin Liu wrote in a paper sponsored by SFRP, "high-poverty states tend to have low per-pupil spending. Among 18 states . . . with above-average poverty, all but two . . . spent less per pupil than the national average. As a result, these states have low Title I aid per student, even though they have high poverty" (Liu 2007). The allocation results mean "places like Wyoming with fewer than 10,000 poor children received $2,957 per child [from the federal government], while Arizona with 213,000 poor children received $881 per child" (Cross and Roza 2007).

In a nutshell, we are left with three different principles for judging the ways schools are funded. Litigation based on the equity principle appears to have run out of steam, although it frequently becomes internalized as part of the adequacy standard. The adequacy standard claims to rest on evidence-based approaches, but the results vary so dramatically (suggesting the need for spending increases as low as 2% and as high as 1,000%) that it is hard to know what to do with them. The efficiency standard rejects the idea that there is any compelling evidence behind the adequacy approach and calls for more experimentation to test and compare alternative uses of funds.

The next section takes a deeper look at the problem of connecting school finance arrangements with consequences for students.

CHAPTER 4.
The Finance/Achievement Mismatch

In the introduction to this report, we argued that a lack of connection between spending and student learning is built into our school finance system. This chapter shows why that is so and examines what is known about connecting finance with student achievement.

Today's Finance Systems Support Programs, Not Results

Consider the way finance systems operate today. They fund enrollment, adjust funding to property wealth, and use categorical grants to target particular needs. They pay staff on a salary schedule; account for spending by fund, function, and object; and accommodate intergovernmental contributions. They budget incrementally but add programs readily.

Our education finance system is a set of programs, rules, and appropriations created at different times for different reasons. Every program, rule, or appropriation made sense in its own terms, whether or not it was complementary or compatible with other programs or rules created earlier. Over time the sheer mass of different programs, rules, and appropriations exceeded educators' ability to find ways of using them all effectively together. Though it is possible to honor the intentions behind all the diverse programs, that make up our school finance system and comply with all the rules, it is not possible simultaneously to maximize student learning.

Finance Systems Are Haphazard, Not Strategic

Over time, finance system adaptations have resulted in a haphazard collection of intergovernmental agendas, funding formulas, and categorical programs; accounting requirements, collective bargaining agreements, and authority relationships; implicit incentives, accountability measures, and stakeholder demands. That is, education finance systems have been

responsive but not strategic. Along the way, the sum of their adaptations became "the way we do things" rather than "the things we need to do."[14]

Finance Systems Are Oriented Around Compliance, Not Outcomes

The degree to which local initiative is stymied by what we earlier called a state and federal regulatory maze is remarkable. Throughout this study, local educators complained that their hands were so tied by regulations that they could not make even the most common-sense adjustments to their programs. Teachers funded out of one line item sometimes cannot be employed, even temporarily, in another capacity. Strict auditing requirements force schools and districts into a compliance mentality. As one local administrator told us: "The K-12 system is like a tanker . . . . You're not going to do anything fast with a tanker . . . . You're dealing with so many people and so many ingrained methods, procedures, contracts. (Everything) gets in the way (De Wys et al. 2008)."

Comments such as this reveal genuine concern among local educational leaders about their lack of flexibility. In a survey of some 150 school superintendents, fully 82% reported that more flexibility in allocating dollars and resources was either "essential" to school improvement or would be "a great deal of help;" 77% said they could do their jobs better if there were less paperwork. State and federal regulations were cited as either a "strong" or "mild" barrier by two-thirds of respondents (Loeb 2007).

Finance Systems Focus on Adult Needs, Not Those of Students

In the final analysis this may be the most troubling conclusion of all: Instead of taking student needs as the starting point and designing systems to meet them, traditional finance systems and approaches take the existing order of things, including collective bargaining agreements, and build on that. The result is a system that is at least as much oriented around meeting adult needs as it is around those of the students the system was established to serve.

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14. For instance, the federal regulatory response to early local misappropriation of Title I funds led to a system-wide compliance mentality; accounting by fund, function, and object; and the single salary schedule, all of which separate resources from student success, elevate process over results, and impede coherent instructional programs or effective spending. See Cross and Roza (2007).

Here again, local administrators were eloquent in their complaints about how difficult it is to modify the existing order of things. While endorsing contract conditions that ensure fair treatment of teachers, educators also told us that contracts prevent them from taking steps they believe necessary to improve performance, such as lengthening class periods and school days and years, keeping students with the same teacher for multiple years, and trading larger class sizes in non-core subjects for smaller classes in core subjects. Removing ineffective teachers is a particular bone of contention. As one principal put it: "It takes so much time and effort from an administrator—sitting in their classrooms on a weekly basis, (providing) written feedback, meeting with the teachers, meeting with the union reps—to move a teacher out of the system. It takes a whole lot of time to do that (De Wys et al. 2008)."

That principal also spoke for many superintendents. Large majorities of responding superintendents want less restrictive teacher contracts (75%), more freedom to dismiss ineffective teachers (84%), and more flexibility to reward those who are effective (69%) (Loeb 2007). There is some evidence, illustrative and suggestive but not final or definitive, that provided with this freedom, behavior changes. Schools set up different staffing arrangements for themselves, and teachers are willing to consider trade-offs between equal-cost alternatives—salary increments, teachers' aides, or reduced class size (Roza, Davis, and Guin 2007; Goldhaber, Destler, and Player 2007).

Finance Systems Disconnect Resources From Results

There are only three reasons, but very big ones, why we don't know how much it will cost to educate every child to standards.

First, no one has yet met the goal of educating all children to high standards. Though some schools have done a great deal to close the achievement gap between privileged students and students disadvantaged by combinations of poverty, minority status, and unfamiliarity with English, none has been able to do so on a district- or city-wide scale. Thus, though we have success examples we don't now how to get the same results everywhere. Nor do we have reason to think the same schools would work for everyone.

Second, we don't allow money to be used to support fundamentally different ways of providing instruction. The ways we finance and regulate schools work against experiments with new modes of instructional delivery (for example, those trading some of the money now used

to pay teachers for technology-based resources), new sets of teacher skills, new ways of using student time (for example, via online lessons that students can access any time of day), new ways of mixing instruction with social and family services, or new individualized assessment-driven instructional packages. Such experiments are impossible as long as uses of money, time, and people are all fixed in place by regulation.

Third, we lack ways of measuring either the cost or the effectiveness of any instructional practice. For reasons explained above, it is extremely difficult to know what anything costs. The only way to know what a particular school, course, classroom, or program costs is to track all the salaries and other resources associated with it, and calculate their total actual costs (not averages or costs excluding hidden state or philanthropic contributions). To get per-pupil costs, it is necessary to use actual class sizes, hours of instruction, real expenditures for salaries and benefits, and administrative and facilities costs. The current system makes these calculations extremely difficult. To date, only two scholars, Marguerite Roza and Karen Hawley Miles, have even attempted to make them.

It is possible to understand the links among funding levels, uses of funds, and student results, but not if uses of funds are hidden or hopelessly complicated, or if educators are kept in the dark about costs and trade-offs. Though states and school districts try to measure effectiveness via test scores and student graduation, course completion, and dropout rates, we have no good way of linking these either to the amounts of money spent on a particular student's education or to the programs and instructional resources (including teachers) to which she is exposed. Though extensive records are kept on students, teachers, programs, and schools, states generally resist combing them, in part because unions and school boards do not want productivity analysis done. The techniques and data necessary to distinguish more or less effective (and cost-effective) programs, courses, classrooms, and schools are all available, but our system has been built to make their use difficult.

Thus, our school finance system now prevents the experimentation that could uncover promising options and resists the analysis that would be required to show what is working and what is not. These deficiencies are built into our particular system, but they are not endemic to education. The final chapter will show how Americans can put themselves in a position to experiment, discover progressively better methods, transfer money and students to more effective schools and programs, and continue doing so until overall student performance increases dramatically.

CHAPTER 5.
Toward a System That Can Link Resources and Results

Table 2 outlines some of the major differences between the existing system and the one that must be put in place. The differences can be seen across the board—in philosophy and approach; how staff are selected, assigned, and compensated; and what is expected in terms of resource allocation and accountability. Where conventional approaches ask, "Is money distributed equitably among school districts?" a new performance-based system would raise the question, "Are resources reaching the students they are intended to serve?"

TABLE 2. ELEMENTS OF A NEW APPROACH TO SCHOOL FINANCE

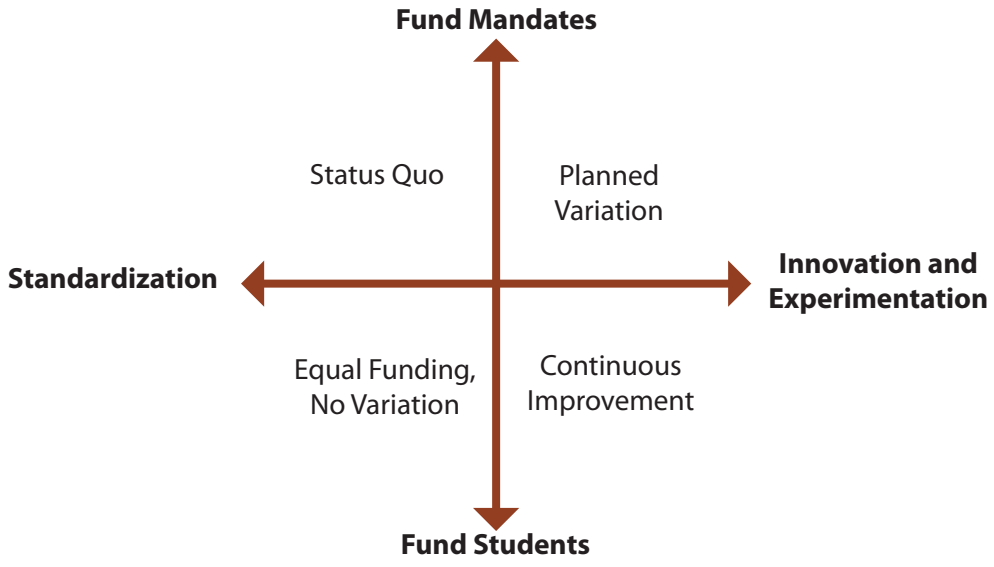
Priorities and Needs	Existing System	New Approach
Funding for what works	Funding for fixed institutions and staffing arrangements	Provide funding that can move freely from less effective to more effective uses
A focus on core needs	Higher spending on electives	Focus spending on core subjects, gatekeeper skills
No achievement gap	Inexperienced and less expensive teachers in most challenged schools	Provide experienced teachers in challenged schools, or provide principals with equivalent in discretionary resources
Help for low-income students	Disproportionate spending on affluent students	Support disproportionate spending on low-income students
Strong school leaders and entrepreneurs	Self-selected managers	Identify and groom problem solvers and instructional leaders
Capable teaching force	Rewards based on seniority; professional development expenditures compensate for low standards on hiring and tenure	Provide rewards based on results
School environments conducive to learning	Unstable schools for the most disadvantaged, due to teacher turnover	Support stable and studious schools through teacher stability

While the changes proposed in table 2 may disturb the existing order of things in local schools and districts, there is nothing earth shattering about any of the insights contained in it. In that context it is hard to justify a system that spends more per pupil on electives, the arts and athletics, and the needs of affluent students than it does on core courses, basic academic subjects, and meeting the needs of disadvantaged students. Where everyone would accept the importance of improving the school climate, while identifying and nurturing leadership and the best teachers, one must ask why, to date, we have stood by as teacher turnover destabilized schools, leaders selected themselves, and teaching rewards were based on seniority, not on performance or value to the school in which a teacher works.

Another thing that needs to be said is that none of the changes above, or all of them combined, will guarantee that all students meet standards. What we can guarantee is that without changes of the sort outlined here and a continuous process of evaluating our progress and making needed adjustments, the system will never be able to help all students.

How would we create such a system? Knowing that change is required and knowing what to do are two different things. It often helps to keep a simple idea in mind. The four-part schematic in figure 13 below divides the options about how to fund and regulate schools. Along the vertical dimension, financing options range from rigidity (funding mandates) to flexibility (funding students). Along the horizontal dimension, educational methods options range from standardization to innovation and experimentation.

FIGURE 13. OPTIONS FOR FUNDING AND REGULATING SCHOOLS



The upper left-hand quadrant is where we find ourselves today. Funding is rigid, controlled by formulas, and accompanied by mandates, and it encourages a type of standardization at the local level that is reinforced by rules, regulations, and audit requirements.

The lower left-hand quadrant appears to be promising, but it really is not. It seems to encourage innovation by directing funding toward students, but stifles the urge almost immediately by marrying the funding innovation to standardized one-size-fits-all approaches. Big bets on universal reforms ignore the diversity of needs in American schools. Even if they benefit some schools (as happened, for example, when San Diego mandated standardized instruction in all schools), other schools do not improve. San Diego's experience shows that localities starting with standardized approaches are ultimately forced into trying multiple approaches, that is, moving toward the lower right-hand quadrant.

The upper right-hand quadrant permits some experimentation in the form of planned variation. So, for example, trials of new methods like those developed by the New American Schools program funded by the private sector in the 1990s and the small schools effort supported by the Bill and Melinda Gates Foundation can be found in this quadrant.

The right-hand side of the quadrant is where we need to go. Here financial flexibility promoted by a school finance system aimed at funding student needs meets a policy environment encouraging innovation and experimentation. In this side, and particularly in the lower right-hand quadrant, we have precisely what we need to move forward: the ability to continuously improve local educational programming and learn as we go.

Not knowing how to educate all children to high standards also means that we can't know what it will cost to do so. A process of continuous improvement, in which everything is on the table and nothing is a sacred cow, is the way to move forward over the long term. In a society that is always open to the trial of new ideas, acceptance of innovation, and change or replacement of institutions that cannot keep up with new discoveries, K-12 education is the only one still stuck on the search for the one perfect solution.

Toward Continuous Improvement

As in every other field where current performance is unacceptable but higher performance is clearly possible, rules on the uses of funds must be opened up so that:

- Money and people can flow from approaches that are less productive to those that are more productive.
- Potential innovators are encouraged to invest time and money developing new approaches.
- Fair comparisons can be made between new and dominant approaches.
- Performance improvement is the focus of accountability.

These conditions combine to create a process of *continuous improvement*. No arrangement is ever assumed "good enough" just because it satisfies stakeholders or avoids violating any laws. To the contrary, even the best-performing school, teacher, or instructional program is assumed not to be the best possible. Every arrangement, even one that looks good at the present time, is subject to challenge and replacement by something better.

The fact that the United States has created continuous improvement processes in other fields is why we benefit from a constant flow of innovations (e.g., in surgery) and how we know, for example, that some surgical practices (e.g., arthroscopic knee surgery) are better for patients than other approaches.

The four conditions sketched above don't promise success quickly. To the contrary, they will lead to failures as well as successes, just as our current system produces both. However, a continuous improvement system abandons failures rather than protecting or sustaining them, finds alternatives, and builds on successes.

Based on work done for SFRP, we can identify the most important changes that states would have to make if they wanted to create a continuous improvement system.

Easy Movement of Money and People

The key to creating a school finance system capable of continuous improvement is to avoid imposing arbitrary constraints on uses of money. If a significant amount of money is used for purposes whose effectiveness is not proven—for example, for administrative units that exist now only because they have existed for a long time—potentially more effective uses of the same money are rendered impossible.

This principle does not imply that every dime be spent in the classroom or that no money should be used for administration, performance oversight, teacher training, or outside assistance to struggling schools. It does imply that no use of money should be considered privileged or untouchable and that any decision to use money in a particular way be subject to amendment in light of evidence.

Most states now distribute money for K-12 education in ways that make specific uses of funds permanent. Under a system of continuous improvement, distribution of funds would be considered contingent and subject to challenge. This is so even when states fund things that schools certainly need. Washington and North Carolina, for example, tie the lion's share of state funding to teacher slots, one teacher for approximately every 20 students. What is to say that schools employing a different number of teachers than the state funds, or using some of the funds now dedicated to teachers to purchase online materials or instruction provided by museums or scientific institutions, might not be more productive, at least for some children? The answer is, there is no evidence that it wouldn't.

The same is true of fixed administrative structures. There is no evidence that schools employing less than the funded numbers of administrators and spending money in ways other than now required are less productive; there is reason to think that schools could be more productive if they traded in some administrators so they could spend more on teachers or technical resources. There is no proof that what is now funded is optimal, and there is reason to think that other ways of spending could be more productive.

The same could be said for many other policies that tie funds to particular uses. For example, states want high school students to learn chemistry and biology, but, given the many productive ways of integrating the two subjects into one superior course, there is no reason to fund instruction in a way that requires these subjects to be taught separately.

In fact there is every reason for states to distribute money in ways that are wide open to uses such as the ones described above and to other uses that no one has yet thought of. The only way Americans can ever know whether some uses of funds are more productive than others is to allow many different uses and closely track and compare the results.

How can states provide money for K-12 education in ways that encourage continuous improvement? Not, as we have shown, by funding things whose value relative to plausible options is unproven. The answer is that states should fund something that is permanent, not changeable in light of evidence. Others might imagine different ways to do this, but we

can think of only one: states should tie money to the one element of the education system to which they should be unconditionally committed—students.

Tying money to students means allocating a specific amount for every child seeking to attend a publicly funded school and distributing money to districts and schools solely on the basis of enrollment. States could decide to allocate more for one group of children than for another (for example, allocating more than the average amount of money to support education of children who do not speak English). But consistent with not funding things whose value is unknown, states would allocate money to districts for those children's education, rather than for any specific program or administrative structure.

If states would combine all the money they now spend on K-12 education, divide it up by enrollment (with the same fraction of the total assigned to each child) and distribute dollars to school districts in the same way, they could simultaneously eliminate both the barriers to innovation and improvement inherent in current funding systems and the confusion about where state money goes. Money would go wherever children are educated, not be held centrally to preserve particular schools or programs. This would allow new uses of funds, an essential precondition to experimentation.

The federal government could reinforce the movement toward pupil-based funding by making its major grant funds pupil-specific. It could do that by sharply defining student eligibility criteria for such programs as Title I, and then requiring that states divide the money received from any such program equally among all eligible recipients in the state and allocate it to the schools those children attend. Thus, federal programs could still increase spending on designated beneficiaries without privileging particular uses or creating bureaucracies.

Funding students is a move in the right direction, but it is not enough. States must also make sure that all funds move from one school to another as students transfer. This could be accomplished via a choice system, which would allow students to move whenever their parents thought they had identified a more suitable school for their child, or administratively, as districts decided to close down low-performing schools and transfer students to more promising options. Free movement of funds would impact school budgets, immediately creating incentives for schools to avoid losing students to other schools. Innovators (educators and social service professionals with new ideas) would also be encouraged by the certainty that they could get full funding for every student enrolled in their school or program.

Fair Comparison of Alternative Fund Uses

Even if funds were distributed in ways described above, continuous improvement would require something more. Differences between less and more effective forms of expenditure might not always be immediately obvious. As recent disputes over effectiveness of charter schools have shown, straight comparisons of schools or programs on student test scores can hide real differences in productivity. Schools with relatively high scores can look superior only because they have more advantaged students and extra resources; schools with relatively low scores can still be helping their students catch up quickly and be much more productive than other schools with similar populations.

The only way anyone can know whether a given use of funds is productive is to compare it in a completely fair way with other uses of funds. In this context "fair" means alert to factors other than educational effectiveness that can affect performance, and, considering ways funds are used, measured in real dollars not averages.

States that wanted to learn about costs and effectiveness of districts, schools, programs, or classes of teachers would need to assemble and keep good data on students (including their school and course enrollment records over time, course completion, and test scores for every year) as well as spending information on every entity or program that serves a student, plus information on teacher attributes. Properly kept and organized so that all student, administrative, cost, and teacher records were linked, such data could be used to identify highly effective (and cost-effective) uses of funds and also to identify outliers on the negative side.

A few states keep linked school, student, and teacher records that could be used for this analysis. None have fine-enough grained expenditure data, for the simple reason that these are kept in broad district-wide summaries and cannot be traced down to the level of a school or classroom. Since, as we have shown, district-wide aggregates hide huge variations in actual spending, these data cannot be used to explore links among spending, people and services paid for, and student outcomes.

Student-based funding and accounting would change all this. States could then analyze the uses of funding at any level they wanted, find highly productive programs and practices that should be imitated, and also identify unproductive schools, districts, programs, etc.

States could then choose how they would use such data to improve school productivity. Some might start simply by giving school districts the results and calling attention to opportunities and problems in need of attention. Some districts might want the raw data so they could perform their own analyses and get out ahead of the state on distinguishing more- from less-productive schools and practices. States might offer grants for reproduction of extremely effective practices or pay for formation of assistance organizations or school management organizations from which districts might seek help. States might also share results with one another, identifying standout practices or school providers that might be exported to districts in other states.

New Investments and Incentives for Innovation

States that rigorously identified productive schools and programs would be in a position to distinguish between districts that provided the most effective services for their children and those that did not. They would also be able to inform district and school leaders about available options evident in other districts and states.

States could also increase the range of options available for district and school leaders by sponsoring experimentation with new schooling models (for example, new applications of cyber school technology in custodial schools that have struggled to teach core subjects). States might also sponsor experimentation with fusions of schools and youth service agencies that combine funding from education and social services to provide more focused and individualized family and health services. By all these methods, including monitoring the experience of other states so ideas from elsewhere could be imported and tried out, states could give localities help they have never had before.

If states were to search for productive new options in these ways, they would create strong incentives for innovation. People with bold new ideas could work with the state to get them tried out and validated. School leaders and principals would know that new ideas would be fairly tested and effective ones recognized. The bureaucratic risks now attached to "doing it differently" would disappear. School leaders who wanted to expand their influence by advising other schools or by forming organizations to help large numbers of schools at once could do so. People with ideas about new forms of teacher work or new technology applications could expect fair treatment. Community entrepreneurs who wanted to form innovative charter schools that combine instruction with broader youth services could also expect to get a fair chance.

States that found districts reluctant to change in light of evidence could take more direct action. They could implement the accountability provisions of *No Child Left Behind* or their own standards-based reform programs to require districts to implement more productive practices in low-performing schools or to create options for students in unproductive schools. States could also use these data to determine whether to encourage independent provision of schools in a locality that proved unable to make progress (for example, by setting up alternative charter school authorizers to work in the locality) or to assign part of a locality to a new special-purpose school district, as Louisiana has done in New Orleans and Baton Rouge.

Strong actions like these are likely to be rare: information about options and the prospect of state action should be enough to motivate most districts to act. It is true, however, that some districts lack capacity to pursue good opportunities or are too bound up in local politics to change the status quo. In those cases, the state faces a stark choice between doing nothing (and thus accepting continued educational failure in some localities) and taking actions that fulfill its responsibility to provide effective schools for all its children.

Performance-Based Accountability

Traditionally, accountability in public education has been seen as a grab bag of techniques for praising, shaming, or threatening employees in order to motivate effort. If those techniques did not achieve the desired effect, state and district leaders were stuck. Little could be done to change uses of funds that were mandated by federal or state governments or courts, and employees might be reassigned but they were guaranteed jobs. Schools were assumed to be permanent: They might get a new program or a few new staff members, but they could not be replaced.

Accountability for performance is very different. Individuals and organizations who are legally responsible to ensure every child gets an effective education—governors, local school board members, and superintendents—must search for options until they find what works. They can delegate tasks, but only on a contingent basis depending on results. Governors and local superintendents, for example, can decide whether to rely on one provider or another, or on their own employees, to perform a particular task. But no matter to whom work is assigned, top leaders remain ultimately responsible for whether students learn.

Public officials who say, "We have tried and tried but the people to whom we assigned the task just can't do it, so we can do no more," have not just delegated responsibility, they have abdicated it. Officials who deprive themselves of options—for example, by protecting programs, employees, or schools whether or not they work for children—implicitly abdicate their own responsibilities.

Performance-based accountability is ultimately based on options. Responsible officials like governors and superintendents need to not only measure school performance but also remain aware of options. Are schools elsewhere doing better than ours with a particular student population? Are there people and organizations locally or elsewhere who could provide a better option for students who are not now learning what they need to know?

If some schools are not working for their students, one option always available is to leave the task in the same hands but to make changes—greater resources, more training, hiring expert advisors or more capable employees—that make success more likely. However, that is often not enough. Top officials also need to be willing to—and avoid giving away their power to—reassign schools, cancel and replace programs, bring in new school providers from the community or elsewhere, replace staff, and make new trade-offs between employees and technology.

A continuous improvement system requires that someone remain in charge, not of dictating what every school will do, but of constantly assessing performance and looking for better alternatives. This is a role that has slipped away from state and local officials, but someone must play it. In the localities that are moving toward continuous improvement (for example, New York, New Orleans, Chicago), this role is played by the superintendent, supported by a re-missioned district central office that tracks performance and constantly works to develop options. The superintendent, often backed by the mayor or state superintendent, makes the final decisions but the district central office's job is to make sure there are always options. Other public sector organizations committed to doing whatever it takes to get high performance have similar arrangements.

Another principle of performance-based accountability is that a person or entity cannot hold itself accountable. If one entity (say the school) decides how to spend money to deliver instruction and support other activities, some other entity must judge its performance and determine whether there are better options. Thus, if schools make key decisions about spending, staffing, and instruction, school districts can hold them accountable. But if school districts make all the decisions for schools (including committing to contracts

that determine who works in schools and how time is used), some other entity must hold the district accountable.

States do not often hold districts accountable, but they can. Districts are, after all, creatures of the state whose powers, boundaries, and very existence are based in state law and regulation. Under a continuous improvement scheme, states must treat districts as if they were providers of groups of schools, to be judged on the basis of performance.

If particular districts do nothing to improve their low-performing schools, states could take over whole districts or re-assign groups of low-performing schools to new special-purpose districts. Louisiana's Recovery School District serves this purpose statewide. It can take over schools or groups of low-performing schools (including the majority of schools in a particular district) and assign them to new providers, re-staff them, or even close them. The Recovery district might eventually return control of these schools to their original districts. But it also might oversee the schools it has taken over indefinitely or assign them to other existing or new districts.

Whether at the state or district levels, officials who oversee performance-based accountability systems always work in the face of risk and uncertainty. A promising new provider might not be as good as it looks. A struggling provider might get worse, not better, after it receives help. A provider whose contract was terminated for low performance might eventually improve. Performance managers try to minimize these risks by paying close attention to events that affect performance and by weighing every action against possible alternatives. But they focus on increasing the probability of success, rewarding results not effort.

Forthcoming reports from the Center on Reinventing Public Education and the National Alliance of Charter School Authorizers will provide further guidance and models for states and localities that want to practice performance-based accountability.

Implications for Policy

Table 3 summarizes necessary changes in state law and policy. As the second column of the table shows, to create a continuous improvement system, state leaders would need to do more than make positive changes in their funding laws and regulatory structures. They

would also need to eliminate statutory and regulatory provisions that hide uses of funds or tie dollars up for the support of institutions, programs, and employees whose productivity needs to be proven, not assumed.[15] These changes are fundamental; all would require redesign of legislation, regulation, and state accounting systems.[16] See Appendix C for a comparison of these recommendations with those made by the National Working Group on Funding Student Learning.

15. The National Working Group on Funding Student Learning has recommended that states and localities adopt "reform oriented collective bargaining," described as follows: Traditional collective bargaining agreements are problematic for learning-oriented finance systems in general and continuous improvement in particular. They pay teachers on a uniform salary schedule and use seniority to control assignments. They limit professional development, restrict evaluation, protect individual teachers, and ignore student performance. They make sharp distinctions between labor and management, view bargaining as adversarial, and restrict flexibility regarding contract provisions (Koppich 2007). In terms of resource management—converting resources into student learning results—traditional contracts represent a rigid, uniform, non-strategic approach that focuses on teacher interests rather than student learning. In contrast, reform-oriented collective bargaining agreements view union-management relationships as collaborative and student learning as a joint responsibility. They allow differentiated teacher roles and compensation, fit assignments to needs, and permit new forms of professional development and evaluation. Reform-oriented agreements also include provisions for career development, link contract components to district-wide school improvement efforts, and allow some flexibility in their application. Moreover, acknowledging that teachers' collective actions affect public obligations, reform-oriented bargaining protects teaching, too, not just individual teachers. Because collective bargaining agreements control both the bulk of school district funding and key factors in teacher and student success, they are inseparable from effective resource use. Reform-oriented agreements acknowledge this relationship by exploring new ways to connect teacher-related resources with instruction and student learning. This reform-oriented approach represents a recent and still uncommon development in collective bargaining. However, it has evolved under the same legal guidelines as traditional bargaining and the leadership of both National Education Association and American Federation of Teachers affiliates. Its learning orientation deserves further exploration.

16. The National Working Group on Funding Student Learning presents a similar analysis and draws conclusions that are identical in intent though worded slightly differently. See National Working Group on Funding Student Learning (2008).

TABLE 3. HOW STATE LAW AND POLICY CAN SUPPORT CONTINUOUS IMPROVEMENT

What's needed	How to get it
Easy flow of people and money from less to more productive uses	Fund students, not programs or adults. Account for use of funds down to the school, classroom, and student. Move money administratively or via choice.
Fair comparison of alternative fund uses	Link records on spending, services, student characteristics, and outcomes. Compare programs, schools, teachers on a cost-effectiveness basis.
Incentives for innovation	Encourage unprecedented uses of funds, methods, technologies, and human resources. Maintain neutrality between providers of instruction, whether conventional or new.
Performance-based accountability	Top officials retain power to re-assign schools, change staffing, and create options. Districts (and state departments of education) are re-missioned to support judgments about schools and develop options.

Table 3 does not answer a big question: Should states allocate money to districts and let them make decisions about how to spend it, or should they require that districts pass money on to schools and let school leaders make spending decisions? The answer is that states could choose either course of action, as long as they required districts to account for funds down to the level of the student. With that requirement, it would be clear how money was used and what individual students experienced. Of course, allocating money directly to schools is likely to generate greater diversity in practice and therefore be more conducive to learning about the effectiveness of innovative practices.

A state's decision about where to lodge spending discretion has implications for accountability. If school leaders have spending discretion, it is reasonable to let them reap the consequences, good and bad, of those decisions. Thus, schools that hire and support good teachers and provide focused instruction leading to student learning can be rewarded with continued freedom of action, and schools that decline or remain stuck at low levels of performance can face strong intervention, competition from new schools, or closure. Districts

can hold schools accountable in these ways, and the state can hold the districts accountable in ways described in the preceding section.

If districts exercise all spending discretion, they cannot hold themselves accountable. If a district controls spending but runs many unproductive schools, the state then faces the difficult problem of whether to intervene in or sanction the district because of low performance in a few schools or to let sleeping dogs lie.

Ironically, a district that allocates funds directly to schools is likely to generate more options and better evidence about what works than a district that makes spending decisions centrally. Similarly, a state that requires districts to let schools make spending decisions has more and finer-grained options when schools fail. By lodging spending decisions at the school level, a state can create strong performance incentives for both districts and schools. By lodging spending decisions at the district level, a state makes districts unable to hold individual schools accountable. It also creates new responsibilities and headaches for itself.

CHAPTER 6. Conclusion

The main message of this report is that states cannot both continue funding schools and regulating schools in traditional ways *and* know what is the right amount of money to spend or how to spend it. State leaders have a fundamental choice to make: whether to continue tying funds to administrative structures, employee groups, and programs or to give schools money in ways that allow experimentation and continuous learning about what is possible given many alternative uses of funds and what works in different situations.

Every level of government and educational administration—from the federal government to the local school district—has adopted methods of funding schools that make it difficult to see how money is used and how spending links to student learning. However, state governments both provide the most money and now do the most to create opaqueness and complexity. The states are also the entities that can do the most to open up the system so that links between spending and student learning can be understood. States fund dozens of different programs and forbid schools and districts from making alternative uses of funds given for particular purposes. They also require schools to be staffed in certain ways, require that certain subjects be taught in isolation from others, and mandate certain class sizes and uses of teacher and student time. State legislatures are often willing to increase spending on schools, but they also impose new constraints and program boundaries to go along with the new money.

State officials who have helped create these rules and constraints rightly point out that each one of them was imposed for a purpose. Many state programs were intended to reverse patterns of neglect of particular groups of children or to make sure districts spent enough money to maintain school buildings. More recently, as our SFRP studies of state finance systems revealed, legislators who wanted to increase education spending also feared that local collective bargaining would capture all new money so that teachers would be paid more for doing the same things. Tying the money to new programs and requirements, legislators hoped, would ensure that new state spending led to improvements in instruction.

It is clear that the era of mandates and standardization based on false confidence in the one best system needs to end. Governors and legislators can put themselves in positions to find more effective uses of funds and constantly improve schools in light of what works by:

- ***Driving funds to schools based on student counts.*** The goal should be to deliver real budgets to local principals, which they should be responsible for allocating and managing within their schools. Legislatures can use weighting if desired to allocate extra money for disadvantaged children. Congress can also amend Title I so that it allocates funds on a per-pupil basis based on student characteristics, right down to the school a student attends.
- ***Keeping linked data about uses of funds and results so that alternative methods of delivering instruction can be compared on cost and effectiveness.***
- ***Encouraging innovation and experimentation with new uses of funds and imaginative new instructional programs.*** States should demand relentless innovation and school improvement, building on what works and eliminating what does not. The goal should be annual measurable improvement in school and student performance. Data and analysis capacities, mentioned above, are necessary supports for innovation and experimentation.
- ***Holding schools and districts accountable for student performance and continuous improvement.*** State legislatures should re-mission school districts and state education agencies to manage portfolios of schools on the basis of performance. Superintendents and chief state school officers should be held responsible for judging school performance and finding better options for children whose schools do not teach them effectively. Policymakers should help build central office capacity to analyze evidence on performance and find or develop more productive methods, staff, and school providers.

The old computer is overloaded, can't run all the programs we have attached to it, and was never designed for the things we now most need done. It is time for a new model, not just a marginal upgrade.

The time for gradualism has come and gone. Until educators and policymakers pay attention to the agenda laid out in this report, schools in the United States will continue the endless circling around the same set of issues that has consumed them for the last 25 years.

A school finance system built for continuous improvement is not committed to chartering, vouchers, standardized curricula, or to any other specific school reform. It would not assume that district-run schools were less effective than charters or vice versa or that particular uses of time, money, staff, and materials were always better. Such a system would also minimize rules and constraints on use of funds so that new ideas could be readily

tried. It would be wide open to experimentation, measurement of costs and performance oversight, and differentiation in uses of funds and instructional practice.

Adopting a school financing system based on continuous improvement would transform school districts. But, as our sketch of the current school finance system shows, districts cannot make these changes by themselves.

APPENDIX A.
The National Working Group on Funding Student Learning

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APPENDIX B. Background Papers

These papers can be found at www.schoolfinanceredesign.org.

Commissioned Papers

Cross, Christopher T., and Marguerite Roza. 2007. *How the federal government shapes and distorts the financing of K-12 schools.* Working Paper 1. Seattle: University of Washington, Center on Reinventing Public Education, School Finance Redesign Project.

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APPENDIX C. Recommendation Comparison

How Recommendations in This Report Line Up with Those Made by the National Working Group on Funding Student Learning

This Report	Working Group Report Recommendations and Actions
Drive all funds to schools based on student counts.	Deliver resources transparently and flexibly. Attach federal, state, and local funding to students.
	Deposit student-based funding in school-linked accounts that operate on the basis of real-dollar budgeting.
Keep linked data about uses of funds and results.	Create and support data systems that link student learning, finance, and human resource information.
Encourage innovation and experimentation.	Focus and enable educators' work. Develop educators' abilities to align and adapt resources effectively.
	Explore reform-oriented collective bargaining.
	Expand resource knowledge and experiment with new methods. Fund research and development on continuous improvement.
	Strengthen charter laws or create other mechanisms to allow outside-the-box experiments on resource and school options.
	Continue to investigate how much money it takes to get all students to standards.
	Expand the R&D agenda to link education with the broader array of resources available to children and youth.
Hold districts and schools accountable for student performance.	Redesign resource accounting and accountability. Revise government accounting and financial reporting standards and practices to reflect outcome principles and measures.
	Develop performance incentives for adults and students. Define resource responsibilities and structure contingencies on jobs, schools, and funding.

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The Center on Reinventing Public Education at the University of Washington Bothell engages in research and analysis aimed at developing focused, effective, and accountable schools and the systems that support them. The Center, established in 1993, seeks to inform community leaders, policymakers, school and school system leaders, and the research community.