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## The School Finance Redesign Project: A Synthesis of Project Work to Date

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# School Finance Redesign Project

center on reinventing public education

## THE SCHOOL FINANCE REDESIGN PROJECT:

**A Synthesis of Project Work to Date**

**Paul T. Hill**

*Center on Reinventing Public Education*

**Working Paper—Interim Summary Report**

**August 3, 2007**

## **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?”

Check in with us periodically to see what we’re learning and how that information may reshape education finance to make money matter for America's schools. You can find us at [www.schoolfinanceredesign.org](http://www.schoolfinanceredesign.org).

Jacob Adams, Principal Investigator

## **The SFRP Working Paper Series**

The Working Paper Series presents analyses that are complete but have not undergone peer review. The papers are subject to change and should be cited as working papers. Their purpose is to promote discussion and to solicit reactions.

## **Support from the Bill & Melinda Gates Foundation**

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## Introduction

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Education still claims the lion's share of state and local government expenditures, but rising costs and competition with other sectors (e.g., public safety, health care) have put public education in a squeeze. Though there are moral and legal arguments for spending whatever it takes to give our children a good education, the reality is that spending will always be finite; moreover, as in other parts of the public sector, there will always be more ideas about how to spend money than there is money available.

In the past decade, controversies about public spending on education have grown as states adopted performance standards pledging that every child will learn enough to become an independent productive citizen and as No Child Left Behind has put teeth in those expectations. Educators say that meeting higher standards requires more money. Some policymakers claim that past spending increases were large enough to pay for higher performance if funds were used productively. While litigants have asked courts to determine what amount of spending is adequate to allow schools to meet standards and then to mandate commensurate spending increases, defendants in "adequacy" lawsuits have argued that greater expenditures alone will not lead to higher school performance. Critics of demands for more money point to cases in New Jersey, Arkansas, and Kansas City where major spending increases were mis-spent, with little or no impact on student learning. Though no one seriously argues that more spending could never lead to school improvement, there is reason to fear that without changes in the way funds are spent Americans could end up with a more expensive, but not necessarily more effective or equitable, system of public education.

In this environment, elected officials, especially governors and state legislators, have searched for answers to two questions: How much money will it take for all students to meet standards and how should the money be spent? The Bill & Melinda Gates foundation asked the Center on Reinventing Public Education (CRPE) to create a School Finance Redesign Project (SFRP) to help elected officials better understand how the finance system now works and to identify the options that they have in allocating resources to support K-12 education. The project, initiated in 2002 and supported with nearly \$6 million in Gates Foundation funds, has now grown to include more than 30 separate projects. This Interim Report explains the questions we posed, the research strategies we employed, and the ways in which we will present the results. It also previews some of our early findings.

## How We Approached the Assignment

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In formulating our plans, SFRP Director Jacob Adams reasoned that the core of the school finance problem was ensuring that public funds were focused on student learning. Questions about how much more to spend can be answered only when it is clear that available funds are being used to promote student learning. If significant amounts of public funds are used unnecessarily for other purposes—to pay for ineffective programs or to sustain wasteful bureaucracies or lax human resource policies—then no one can say whether existing spending is enough or more is absolutely necessary. Moreover, if inefficient use of funds is universal, it will not be possible to identify "success," that is, examples from which to learn how much must be

spent and in what manner. Similarly, asking how much is needed to close “the achievement gap” doesn’t make sense in a system that is structured to channel disproportionately more resources to more advantaged students.

From what was known before SFRP started, it seemed likely that there were serious questions about the focus and use of public funds in education. Thus, SFRP was designed to address five questions:

- Are public funds now available for K-12 education focused on student learning? If not, what stands in the way?
- Are there good ideas about potentially more focused and effective uses of funds to promote student learning?
- Are there good ideas about better ways to spend money to attract and reward quality educators?
- Do we know enough now to say exactly how much money is needed to bring all children up to standards and to say how money should be spent?
- What can policymakers do to create a situation in which the right amount is spent and funds are all used effectively for student learning?

Guided by these questions, SFRP initiated a number of research projects and assembled a distinguished Working Group to assess the policy implications of the research. In some cases SFRP sponsored entirely new research and in others it asked scholars to re-visit available data to provide at least partial answers to our research questions. We tapped many of the most thoughtful and original researchers in school finance and related fields including Richard Brandon, John Bransford, Christopher Cross, Robert Durante, Christopher Edley, Dan Goldhaber, James Guthrie, Janet Hansen, Eric Hanushek, Paul Hill, Michael Kirst, Julia Koppich, Goodwin Liu, Susanna Loeb, Lorraine McDonnell, Anthony Milanowski, David Monk, Allan Odden, Lawrence Picus, Marguerite Roza, Diana Sharp, Joanne Weiss, and Jason Willis.

The studies we sponsored included extensive interviews with educators and policymakers; analysis of resource use in states, districts, and schools; and reviews of existing financial and legal structures. We also sought ideas about alternative uses of funds from foreign and private school systems and from other industries. The finished products of SFRP work are available on the project website. Some products will also be printed in a collected volume on SFRP work, and some will become journal articles.

The Working Group, which included many of the researchers named above, has met seven times in the past 14 months to review preliminary results and advise on the drafting of a summary report and policy recommendations. This summary report and associated policy recommendations are anticipated in early 2008. Detailed information about Working Group members is provided below:

- **Jacob E. Adams, Jr.** is the SFRP Principal Investigator, a Professor of Education at Claremont Graduate University, and a Senior Fellow at the Center on Reinventing Public Education.

- **Christopher T. Cross** is Chairman of Cross & Joftus, LLC, and he has also served as Director of the Education Initiative of The Business Roundtable and Minority Staff Director of the U.S. House Education and Labor Committee.
- **Christopher Edley, Jr.** is Dean of Boalt Hall School of Law, University of California, Berkeley, and he has also served as a member of the U.S. Commission on Civil Rights.
- **James W. Guthrie** is a Professor of Public Policy at Peabody College of Vanderbilt University and Chairman of the Board of Management Analysis & Planning, Inc.
- **Michael Kirst** is an Emeritus Professor of Education and Business Administration at Stanford University and a co-founder of the Policy Analysis for California Education (PACE).
- **Paul T. Hill** is a Professor in the University of Washington's Daniel J. Evans School of Public Affairs and Director of the Center on Reinventing Public Education.
- **Goodwin Liu** is an Assistant Professor at the Boalt Hall School of Law, University of California, Berkeley, and he also formerly served as law clerk to Justice Ruth Bader Ginsburg.
- **Susanna Loeb** is an Associate Professor of Education at Stanford University and Director of the Institute for Education Policy and Practice at Stanford.
- **David H. Monk** is Dean of the College of Education at The Pennsylvania State University and the co-editor of several finance journals.
- **Allan Odden** is a Professor of Educational Leadership and Policy Analysis at the University of Wisconsin and Co-Director of the Consortium for Policy Research in Education (CPRE).
- **Joanne Weiss** is Chief Operating Officer at NewSchools Venture Fund, and she also serves on the boards of Aspire Public Schools, Education for Change, Green Dot Public Schools, Leadership Public Schools, New Leaders for New Schools, and Teachscape.

Table 1 identifies the research products SFRP has sponsored, showing which products address which research questions. All of the documents in Table 1 are now or will soon be available on-line at <http://www.schoolfinanceredesign.org>.<sup>1</sup> A few others will be added in late 2007.<sup>2</sup>

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<sup>1</sup> Roza's paper on allocation anatomy and Loeb's paper on estimating the cost of achieving education standards will be posted in late summer 2007.

<sup>2</sup> As shown in the table, case study reports for Texas and North Carolina are available on the SFRP website. Case studies reports for Ohio and Washington will appear on the website in fall 2007, and a cross-case analysis by Adams will be available in late 2007.

**Table 1. Fundamental SFRP Research Questions and Resulting Products to Date**

Questions	Products
<b>Are funds now used efficiently? What stands in the way?</b>	<ul style="list-style-type: none"> <li>▪ <i>School Finance Systems and Their Responsiveness to Performance Pressure: A Case Study of Texas. Also A Case Study of North Carolina</i>—Hansen, Marsh, Ikemoto, and Barney</li> <li>▪ <i>Allocation Anatomy: How District Policies That Deploy Resources Can Support (or Undermine) District Reform Strategies</i>—Roza</li> <li>▪ <i>What Is The Sum Of The Parts? How Federal, State, and District Funding Streams Confound Efforts to Address Different Student Types</i>—Roza, Guin, and Davis</li> <li>▪ <i>Resource Allocation in Traditional and Reform-Oriented Collective Bargaining Agreements</i>—Koppich</li> <li>▪ <i>How the Federal Government Shapes and Distorts the Financing of K-12 Schools</i>—Cross and Roza</li> </ul>
<b>Are there good ideas about how to focus money on instruction?</b>	<ul style="list-style-type: none"> <li>▪ <i>Paying for School Finance Adequacy With the National Average Expenditure Per Pupil</i>—Odden, Goetz, and Picus</li> <li>▪ <i>Learning Science Meets School Finance: The How People Learn Framework as a Tool for Resource Decisions</i>—Sharp and Bransford</li> <li>▪ <i>Incentive-Based Financing of Schools</i>—Hanushek</li> <li>▪ <i>Spending Choices and School Autonomy: Lessons From Ohio Elementary Schools</i>—Roza, Davis, and Guin</li> <li>▪ <i>Improving Title I Funding Equity Across States, Districts, and Schools</i>—Liu</li> <li>▪ <i>Toward Effective Resource Use: Assessing How Education Dollars Are Spent</i>—Willis, Durante, and Gazzo</li> <li>▪ <i>Two Alternative Yet Complementary Conceptual Frameworks for Financing American Education</i>—Kirst</li> <li>▪ <i>District Resource Allocation Modeler: A Web-Based Tool Supporting the Strategic Use of Educational Resources</i>—Frank and Miles</li> </ul>
<b>Are there good ideas about attracting and rewarding educators?</b>	<ul style="list-style-type: none"> <li>▪ <i>Returns to Skill and Teacher Wage Premiums: What Can We Learn by Comparing the Teacher and Private Sector Labor Markets?</i>—Goldhaber, DeArmond, Liu, and Player</li> <li>▪ <i>Teacher Labor Markets and The Perils of Using Hedonics to Estimate Compensating Differentials in the Public Sector</i>—Goldhaber, Destler, and Player</li> <li>▪ <i>A New Approach to the Cost of Teacher Turnover</i>—Milanowski and Odden</li> <li>▪ <i>Recruiting New Teachers to Urban School Districts: What Incentives Will Work</i>—Milanowski, Longwell-Grice, Saffold, Jones, Odden, and Schomisch</li> <li>▪ <i>Teacher Attitudes About Compensation Reform: Implications for Reform Implementation</i>—Goldhaber, DeArmond, and DeBurgomaster</li> </ul>
<b>Do we know enough to make prescriptions now?</b>	<ul style="list-style-type: none"> <li>▪ <i>Difficulties of Estimating the Cost of Achieving Education Standards</i>—Loeb</li> <li>▪ <i>Making Resource Decisions Amidst Technical Uncertainty</i>—Guthrie and Hill</li> <li>▪ <i>Conditions for Student Success: The Cycle of Continuous Instructional Improvement</i>—Weiss</li> <li>▪ <i>Out of the Box: Fundamental Change in School Funding</i>—Monk</li> </ul>
<b>How can policymakers ensure that funds are spent effectively?</b>	<ul style="list-style-type: none"> <li>▪ <i>Creating the Political Conditions for Major Changes in School Finance Policy</i>—McDonnell</li> </ul>

## What Are We Learning?

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Though additional work remains, SFRP has produced important findings and promising ideas in response to our five main questions. This section highlights some of the results and ideas that have emerged.

### Are Public Funds Focused on Student Learning?

A quarter century ago a series of RAND studies showed that it had become difficult to say exactly who was responsible for an individual student's academic growth, especially in big-city public schools that received funding from many sources (Kimbrough and Hill 1981). In the intervening years, funding has become even more complex, and the constraints have grown. More recently, Brewer and Smith (2007) demonstrated how California's fragmented governance works against schools' efforts to adopt coherent approaches to teaching and learning. They show that every level of government (school, union, district, county, state, federal) has some influence over staffing, professional development, curriculum, and assessment; moreover, their work indicates that different levels of government dominate different issues. In such a fragmented situation, one level of government can pursue an idea about instruction and find its way blocked by other levels of government. At the school level, educators are often forced to abide by incompatible constraints.

Though findings from other states might differ in detail, state level case studies done for SFRP by Hansen et al. (2007) and Adams et al. (2007, forthcoming) reveal that educators now feel pressures to close achievement gaps and raise overall levels of student learning, but they have a great deal of difficulty changing how they spend money and time and how they select and train staff. Though most of the educators interviewed for our studies hoped for more money to support higher performance, many were forthright about the ways current funding mechanisms get in the way of increasing academic performance:

*...but we live in two worlds. We're funded in a system that's time-based, that's student-count based, that's seat-time based. All of those things are the old system. It collides with high expectations for all kids which requires a different service model, a different way of funding, a different way of accountability.*

Washington educator

*A lot of things that schools do are for the benefit of the public, for the benefit of the board. We do political things that have a lot of pizzazz and flash...I've worked in seven school districts in the state of Texas. In 34 years, there hasn't been a great change. The dropout rate has maintained about the same....The verbiage that we use—that we need to do more with less, we need to reallocate our resources, we need to stop doing the things that don't work—I have never, in my 34 years, witnessed stopping something that hasn't worked.*

Texas educator

In her SFRP study on the allocation anatomy of education finance, Marguerite Roza shows that school districts often do not know how much money is available for the education of particular pupils, what different schools and programs cost, or whether policymakers' priorities

have any link to spending patterns. Districts spend vastly different amounts on similar students due to accidents of history and politics. Central office units, which together control as much as half of all the money available for education, spend money according to their own priorities, often without considering schools' priorities or without coordinating with other central office units. The result is often chaotic, with some schools commanding many more resources and getting a great deal more help than demographically similar schools in the same district.

Another Roza study demonstrates in greater detail than ever before how America's methods of school finance work against a single-minded focus on student learning. Her SFRP working paper entitled *What is the Sum of the Parts?* indicates that each level of government has its own priorities about school spending. In schools, one level of government's rules for use of funds conflict with the rules and priorities established by other levels. The federal government regulates the use of its own funds, assuming that states and localities fund basic school programs. However, many states and localities spend less of their own money on schools that receive federal funds. Thus, schools serving the most disadvantaged students often have less money, and are more constrained about how they use it, than schools serving the advantaged. For example, in this report Roza shows how Texas allocates the money it controls to counter the federal government's intention to ensure that schools serving children in poverty get extra money.

Julia Koppich also looks at an important source of resource allocation decisions—teacher collective bargaining agreements. When school boards enter contracts with teacher unions, they determine the use of nearly half of all the funds available to public education. Provisions about how teachers will be hired, tenured, and distributed among schools and how they are assigned work have profound budgetary consequences, as do measures like salary cost averaging that districts adopt in order to protect teacher placement rights. As Koppich shows, traditional collective bargaining agreements force a sharp division between labor and management, creating formalistic relationships between people who should work closely together and limiting the effectiveness of school leadership. Koppich argues, however, that teacher interests can be protected via reform-oriented collective bargaining agreements that put student performance first by promoting flexibility and collaborative problem solving at the school level.

Finally, Christopher Cross and Marguerite Roza examine the categorical program strategy by which the federal government and most states try to target extra funds for particular purposes. They show that funding programs based on good motives can nonetheless make it more, not less, difficult, for teachers and principals to adapt to the needs of their most challenging students. Ironically, the accounting structures attached to federal funding streams have led school districts to change their use of funds in ways that can frustrate the federal goal of increasing spending on disadvantaged children.

Together this work paints a picture of an accidental system in which regulations and other restrictions and spending decisions are made piecemeal and with conflicting intent. Educators understand the need to press for higher academic performance, but also fear making changes that might risk charges of violating a rule or norm; moreover, no one who now controls a pot of money or is empowered by a regulation or contract has a significant incentive to relinquish that control. To date, the need for enhanced overall performance has not overcome educators' inertia or the incentive to defend turf. Though every funding program and regulatory requirement was imposed for a good reason, in combination they prevent schools, principals, and teachers from making sensible adaptations and trying new ideas. Citizens intend to pay for the education

of children, but they in fact pay for a frozen system that cannot adapt to the performance pressures it now faces.

### **Are There Good Ideas About How to Focus Money on Instruction?**

It is one thing to say that not all public funds are focused on instruction, but quite another to show how funds could be used in a more targeted way. Some observers claim that inefficiencies in K-12 education are inevitable as a cost of taxpayer funding and necessary public oversight. SFRP searched for exemplars that would prove that there are plausible ways of focusing money, time, and attention on teaching and learning.

Our search led in several directions including to studies of how districts have reallocated funds to make their schools more effective, how schools built around new discoveries about learning could lead to new uses of funds, how schools with greater autonomy focus funding on instruction, ways to increase school performance through productivity incentives, more effective ways to use federal funds, and more effective ways to integrate education and social services.

Taken together these studies show there are promising alternatives to the ways public education allocates funds and decides what to buy. None of the ideas documented by SFRP studies is sure to work in every case; each needs to be tried out, refined, and applied to the right circumstances. Nor do they resolve the question of how much money will be required to ensure that every child meets standards. They do indicate, however, that there are many promising alternatives to the ways public education now uses money. For example:

- Hansen, Adams, and colleagues show that educators are increasingly aware of the need to increase student achievement and have many ideas about how to improve student performance. However, the educators and policymakers they interviewed name almost every element of the existing system—from limits on use of school time to mandates on class size and teaching methods to restrictions on hiring and assignment of teachers—as constraints on innovation and problem solving. Though there is some dispute about whether all these constraints are firmly established in law and policy, there is no question educators feel constrained and fear the consequences if they flaunt what they believe to be the rules.
- Allan Odden, Michael Goetz, and Lawrence Picus show that many districts have accelerated student learning by reallocating funds to emphasize targeted assistance to students, fewer non-instructional burdens on teachers, greater use of instructional technology, coaching for teachers, and class size reduction targeted on core classes only. All but the few very low-spending states could, by reallocating their current spending, pay for these changes. Though these measures are not guaranteed to work on every case or to be sufficient to raise all children to high standards, they can be sensible first steps for many localities. As the authors write, “Even districts and schools that are adequately funded may not use their resources in ways that produce the desired and possible levels of student performance.”
- Diana Sharp and John Bransford show how the learning sciences can be applied to school finance. They demonstrate the importance of focusing resources on student assessment, instruction adapted to individual learning styles, greater attention to complex reading materials, group discussion, and teacher training in

“comprehension-based instruction.” Sharp and Bransford are confident that resources can be used more effectively but acknowledge that “Future research is needed to support, extend, and refine this process for matching general resources to specific contexts.”

- Eric Hanushek analyzes the incentives under which public school teachers and leaders work. He concludes that there are few rewards for producing high levels of student achievement and many rewards for work that does not promote student learning. He argues that performance-based accountability would build the link between funding and student learning. If adults’ rewards depended heavily on the student learning outcomes they produced, educators at all levels would be forced to abandon ineffective methods and search for more effective ones.
- Consistent with Hanushek’s conclusions, Marguerite Roza, Tricia Davis, and Kacey Guin show that funds are used differently in schools that have greater autonomy and whose funding depends on performance. Such schools make tradeoffs to employ more generalist teachers at the expense of specialists and non-teaching professionals. Some even pay lower average teacher salaries so they can employ more teachers. Roza and her colleagues demonstrate that resource use in public education is not set in stone but can vary in sensible ways depending on incentives and freedom of action.
- Goodwin Liu demonstrates that there are many promising alternative ways to allocate and use funds under Title I, the federal government’s largest K-12 funding program. He suggests ways of increasing the share of Title I funds allocated to schools and districts serving very low-income children and ensuring that schools receiving federal funds experience real increases in total funding.
- Jason Willis, Robert Durante, and Paul Gazzo show how districts can assess the efficiency of their own resource use compared to similar districts and judge whether non-instructional expenditures are excessive. They suggest that baselining and productivity analysis would lead most districts to spend their money very differently.
- Michael Kirst suggests that a productive education system would focus relatively greater resources on out-of-school interventions, especially for the most disadvantaged children. He argues that such interventions could help teachers and students focus on instruction and actually increase student learning. This could be accomplished with social service funds now available for children but normally used in disconnected ways by bureaucracies that have no responsibility for learning. A “community school” would spend private and public social service funds on many ancillary services that schools now try, but cannot afford, to provide. Students would, he predicts, both gain access to more appropriate community services and learn at higher rates.

These results prove that there are many promising alternative ways to use public funds, in some cases in the amounts already available, to raise student achievement. No one has the evidence to prove that one of the ideas presented here is superior to all the others or that other ideas about uses of education funding might not be even more productive (e.g., more radical uses of on-line materials and other technologies). SFRP’s final Working Group report will show

how states and localities can try out potentially more productive uses of public funds and raise school performance continuously in light of experience.

Two additional SFRP projects, one led by Stephen Frank and Karen Hawley Miles and the other by Richard Brandon, provide analysis tools that states and districts can use in deliberating about how to use funds effectively. These tools are only as good as the evidence on which they are based, and the available evidence about links between education spending and student outcomes is far from conclusive. However, the authors hope that deliberative processes focused on alternative ways to raise student achievement will help public officials make coherent decisions and reverse the current fragmentation of effort and funding in public education.

Of all the scholars who have contributed to SFRP's work, Allan Odden might be the most optimistic about the gains that can be realized by a more focused use of available public funds. In his SFRP paper *Paying for School Finance Adequacy* he argues that “the national average expenditure per pupil is very close to providing adequate school funding.” But he cautions that some places might not use funds effectively even if they have adequate amounts. Adequate spending “would be but one step in a series of steps required for schools to recreate themselves into... high-performance organizations.”

As all these analyses make clear, focused and efficient use of public funds is a necessary element of any strategy for increasing student learning. Some strategies will also require additional spending. However, a full strategy must also include performance incentives, rigorous use of data on processes and outcomes, and efforts to increase the capacities of individuals (teachers and administrators) and organizations.

### **Are There Good Ideas About Attracting and Rewarding Quality Educators?**

A series of SFRP products explores ways of using funds to optimize teacher quality. Like the projects summarized in the prior section, these do not converge on a single answer, but they demonstrate there are many promising alternatives to the ways public education now spends its money.

- Dan Goldhaber, Michael DeArmond, and colleagues explore alternative ways of rewarding teacher skill and productivity and ensuring that disadvantaged students who need the ablest teachers actually get them. As they demonstrate, the current seniority-based teacher salary schedules prevent public schools and districts from paying extra for teachers with rare skills and offering special rewards for the most productive teachers. They show that greater salary flexibility available to private sector firms and less-regulated public schools (e.g., charters) facilitate stronger links among teacher skills, performance, and pay.
- With Kate Destler and Daniel Player, Goldhaber also shows that private schools can take advantage of their flexibility in salary setting in order to pay enough to get the mixture of teacher skills they need. Though it has been proposed that public schools offer alternative wage scales for teaching in the most difficult schools, the researchers demonstrate that no fixed formula can allocate teachers as efficiently as a teacher labor market in which schools are free to adjust salaries in competition with other schools.

- Anthony Milanowski and Allan Odden explore ways districts can reduce the costs (in terms of lost school productivity and lost training investments) of teacher turnover. They conclude that districts should not try to prevent all turnover but could prevent the most harmful turnover by offering incentives to one group of teachers: efforts to reduce turnover should be targeted at individuals who have taught long enough to become highly effective—normally after about five years of experience—but have not reached the top of the pay schedule. The current teacher pay schedule, by deferring so much of teachers’ lifetime compensation to near the end of the career, makes turnover of senior teachers less costly when these teachers are replaced by much lower paid individuals.
- Based on a study of one major urban school district, Anthony Milanowski, Hope Longwell-Grice, and colleagues suggest that central city school systems could recruit and keep stronger teaching forces without necessarily spending a great deal more on salaries. Urban districts draw their teachers from metropolitan labor markets with large numbers of available teachers, and they offer competitive pay packages. However, they often lose out in competition for the best new teachers because they offer much less desirable working conditions. As Milanowski and colleagues report, changes in district policies leading to greater principal support for teachers, “may be more cost effective than higher beginning pay.” For a district hoping to recruit well-trained teachers “to a high-need school, a principal with a reputation for being supportive increases the likelihood of job acceptance by over 19 percent.”
- Dan Goldhaber, Michael DeArmond, and Scott De Burgomaster report on teachers’ views on plans that link pay to teacher performance. Though teacher associations are strongly opposed to “merit pay” and other alternatives to the standard salary scale, certain teachers look on such plans more favorably. These include younger teachers, high school teachers, mathematics and science teachers, teachers with higher mathematics and verbal scores, and Hispanic teachers. Their findings suggest that alternative pay plans might be especially attractive to some teachers whom districts now have trouble attracting. They recommend experiments to test the links between pay schemes and teacher recruitment and retention.

None of these studies offers a “silver bullet” that will all by itself strengthen the teaching force or guarantee that all children are instructed by teachers with needed skills and motivation. However, together these results point to promising new ways of using salaries, incentives, and working conditions to alter current patterns of recruitment, assignment, and retention. In conjunction with the findings in the previous section, which show that there are promising alternative ways to utilize public education funds, these findings suggest that stronger links among instructional strategy, teacher work, and professional compensation are possible.

### **Do We Know Enough Now To Say Exactly How Money Should Be Spent?**

Previous sections have shown that there are now barriers that prevent schools and districts from focusing all their money on improving instruction and that there are promising ideas about how to use money more productively. However, our research falls far short of saying exactly

what uses of funds are best. To the contrary, it shows that the current barriers to innovation and experimentation prevent anyone from knowing what is the best way to use public funds in support of student learning.

This is true for all levels of schooling and for advantaged as well as for disadvantaged students. However, the knowledge deficit is the greatest for city schools serving low-income and minority students. Though some determined school districts have made small test score gains, and some schools (e.g., KIPP) have significantly improved disadvantaged students' outcomes, none has come anywhere near to closing the huge performance gaps between low-income minority students and middle-income white and Asian students.

Susannah Loeb shows that none of the available methods for estimating what it would cost to reach high standards for all children is adequate to the task. This is true for several reasons. It is not possible to map backwards from success because no state now meets the standards to which it aspires. In addition, student needs vary tremendously so the “right” amount in one locality could be inadequate or excessive elsewhere, prices of key inputs vary significantly from one state or locality to another, and many districts lack the capacity to use funds effectively. Moreover, as she concludes, reaching our goals will require innovations in curricula and instruction that are unknown today and therefore cannot be costed-out.

These results do not mean the outcome gaps can't be closed. But they do mean that Americans will not reach the goals they have set for public education without changing the ways schools teach and students learn. This implies changes in the ways we use money.

Two SFRP products ask, “If we don't now know exactly how to most effectively spend education funds, how do we learn?” They conclude that it is possible for communities and educators to learn what must be done, and therefore be able to spend public funds much more effectively, but only if we transform public education from a rule-following organization into an enterprise designed for—and driven by the imperative for—continuous improvement.

James Guthrie and Paul Hill suggest how a performance-driven system would allocate funds, monitor performance, constantly search for more productive models of instruction, and replace less effective schools and programs as more effective ones became available. Such an educational system would be in constant search for better options. This would lead to serious experimentation with new learning methods, new mixes of technology and teacher work, and new organizational supports for schools. Over time the result would be greater knowledge about instructional methods and a better supply of schools. The options available for disadvantaged students in particular should improve, as schools, free of today's constraints on use of time, money, staff, and salaries, pursue modes of instruction that work for the most disadvantaged and as new schools based on promising methods emerge. They argue that such an approach is the only way communities can learn whether the gross amounts of money now available—rather than ineffective uses of available funds—prevent higher school and student performance.

Joanne Weiss shows how schools can seek “continuous improvement” for themselves. She shows that schools need a combination of strong performance pressure, flexible control over the money available for instruction, and close attention to evidence about student growth. She emphasizes the importance of rich information about school context, resource use, and student performance and of technology that enables educators and administrators to observe and analyze the sources of performance variations. With rich information and a determination to use it to drive resource allocation decisions, “the knowledge base in education will grow astronomically.”

School and district leaders can know what different programs or teacher investments cost and whether or not they are working. They will also have access to comparable evidence from other schools and from research and can therefore find promising methods to replace unproductive ones.

How might money be used in a more productive system? David Monk imagines a public educational system in which it is possible to link benefits received with costs borne. Such a system would require novel ways of alloying teacher knowledge, sometimes through technology that increase the number of students who can learn from an expert. Excellent teachers would then have higher status and be paid more. Schools and districts would have performance data on every student and classroom and, when problems are apparent, could rush in help to prevent students from losing ground. The instruction available in any community would improve over time as districts identified more effective schools and instructional programs and abandoned less effective ones.

These SFRP products say that it is possible to know a great deal more than we know now about how money should be spent to reach the student achievement goals set for K-12 education. They also say that there can never be a single answer that is perfect for every situation. New needs and new ideas about how to mix teacher work with technology will never stop emerging. Americans can improve the evidence they get about how much money is needed and for what, but they can never afford to stop looking for better answers.

### **How Can Policymakers Spend the Right Amount and Ensure That Funds Are Used Effectively for Student Learning?**

SFRP's final Working Group report will provide detailed school finance redesign options for policymakers. Lorraine McDonnell asks whether significant changes in public education finance are politically feasible. Though acknowledging that some public policy changes are more viable than others, she insists that alternative systems, especially those that credibly promise higher performance, are feasible. As McDonnell concludes:

*...the political conditions for major policy change are relatively straightforward: an engaging and feasible idea framed as a solution to a pressing problem, skilled policy entrepreneurs willing to invest resources in advancing that idea, interests dissatisfied with the status quo able to be mobilized, weak or neutralized opposition, multiple points of access into decision-making arenas, administrative institutions vulnerable to change, and sufficient time for agenda-setting and change processes to work.*

Readers will soon know whether SFRP has produced the kind of compelling ideas necessary as the foundation for effective policy change.

### **What's Next?**

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In the next three months a number of remaining SFRP projects will be completed. Additional papers and reports will be added to the website and made available to the public. Our most significant future product will be the SFRP Working Group report. This report will draw on all the sources represented here and provide a fresh perspective on the problem of linking school

finance to student achievement. It will make recommendations for federal, state, district, and school actions toward creating a school finance system oriented to student performance and capable of continuous improvement until all students can meet high standards.

We will also publish detailed guides about how states and localities can implement some of the Working Group recommendations. In spring 2008 we will publish guides on:

- moving toward student-based allocation of funds;
- creating data systems required for performance-based assessment of all schools (e.g., on funding, programs, teachers, and student outcomes);
- developing analytical capacities needed to support a continuous improvement system;
- experimenting with new instructional models; and
- implementing continuous improvement systems and identifying implications for district mission and organization.

SFRP will end with a final report accounting for all the products we have produced and revisiting the themes of this and the Working Group report.

## References

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