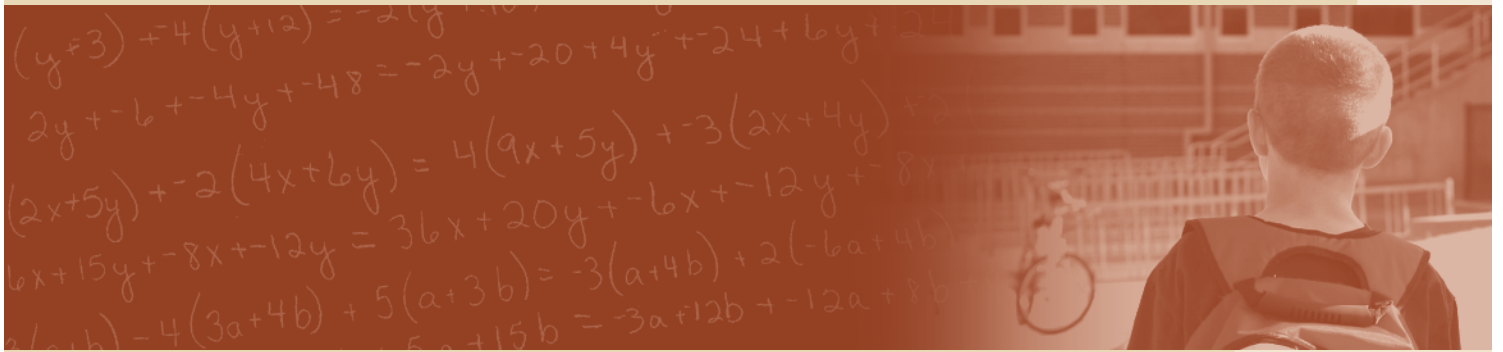


School Finance Redesign Project

center on **reinventing** public education



FUNDING STUDENT LEARNING

HOW TO ALIGN EDUCATION RESOURCES

WITH STUDENT LEARNING GOALS

National Working Group on Funding Student Learning

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October 2008

A report from the
School Finance Redesign Project

Center on Reinventing Public Education
University of Washington Bothell

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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.

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The National Working Group on Funding Student Learning

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It's Time to Fund Student Learning: A Message from the Chair

Education finance has emerged as one of the most salient public policy issues of the new century. In the early 2000s, for instance, and again in 2008, state and local officials faced tough budgetary choices brought on by a slowing economy and falling revenues. At the same time, policymakers and practitioners alike, grappling with implementation of the federal *No Child Left Behind* Act, debated both the level of resources needed to accomplish the nation's ambitious learning goals and who should fund that effort. High-court judges in approximately 20 states declared funding systems to be unconstitutional because funding levels were deemed insufficient to accomplish educational goals, spurring legislators and governors into high-profile negotiations to find feasible remedies. In Texas, legislators convened repeatedly in special session to craft spending plans that satisfied both courts and constituents, while their counterparts in Arkansas and Wyoming revamped funding systems, and governors in California, Ohio, and Washington created commissions to think anew about K-12 spending.

Attention to education finance has extended beyond the halls of government as well. The National Research Council convened an expert panel to examine issues of funding equity and adequacy, and analysts developed new techniques to estimate the cost of achieving educational goals. Philanthropies and government funded large-scale studies of K-12 spending, while think tanks on the left and right released reports urging changes in the way states deliver resources to schools. In the press, new forms of teacher compensation and charter school funding routinely made national headlines. On Wall Street, Standard & Poor's developed an online tool to correlate school spending with performance, as well as a consulting service to improve school district practices regarding pensions, energy, and other non-instructional costs. In short, resource issues in public education now span policy and practice, engage advocates and academics, and arise whether the topic is general support, school improvement, constitutional duty, or organizational efficiency.

The attention is well deserved. Americans spend more than \$500 billion a year on elementary and secondary schools, making education the largest expenditure in most state budgets, and periodic assessment of education's return on investment is a responsible undertaking. In this case, however, there is more to it.

A careful look leads one to conclude that the nation's attention to education finance is unsatisfying. For a quarter century, America's schools have been searching for greater 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. As you will see in the pages that follow, 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?

The purpose of the National Working Group on Funding Student Learning has been to take this next step, both to craft a vision of learning-oriented education finance and to determine what it takes to get there. To accomplish this task the Working Group tackled four questions:

- What is wrong with education finance systems today when measured against the goal of student learning?
- What design principles better link resources with student learning?
- What funding mechanisms are consistent with those principles?
- What conditions are necessary to implement these practices?

By identifying problems, recognizing core principles, matching funding mechanisms to goals, and defining a context in which money can matter, the Working Group was able to

identify opportunities that today's school finance systems miss and to show how public funds can be used more effectively toward achieving results the public now expects.

Working Group members brought a wealth of experience and a variety of perspectives to this task. These distinguished men and women are political scientists, economists, lawyers, policy analysts, and business executives. Their collective experience spans federal, state, and local government; legislative, executive, and judicial roles; and Democratic and Republican affiliations. Three of the eleven are past presidents of the American Education Finance Association. All are scholars and education reformers. Most important, all are individuals whose professional lives and personal activities reflect a deep commitment to improving America's schools and children's lives.

An initiative of the School Finance Redesign Project (SFRP) at the University of Washington's Center on Reinventing Public Education, the Working Group met seven times from January 2006 to July 2007. The members commissioned background papers, examined empirical studies, drafted working papers, exchanged correspondence, and contributed their expertise and knowledge of related endeavors. They culled lessons from SFRP's research, a collection of analyses anchored in the perspectives of school and district practitioners and state officials. Their deliberations resulted in the report before you.

As this report signals the conclusion of the Working Group's tenure, it is my pleasure to thank the members for their honest, forthright, and gracious participation; to thank the researchers and commissioned paper writers who expanded the foundation upon which these deliberations developed; to express appreciation to Shelley De Wys, who enabled this work to proceed so smoothly; and to applaud external reviewers Melissa Bowen, Mike Foote, Scott Joftus, Charles Kerchner, and Lynn Olson whose fresh perspectives helped us over periodic hurdles.

As the Working Group moved deeper into its examination of education funding, a picture emerged of a finance system not capable of supporting high levels of student learning: not designed for it, not operated in order to accomplish it, not transparent enough to understand it, not accountable for it. Such circumstances clearly impede the nation's ability to use resources strategically, effectively, and accountably. If communities, states, and the federal government want resources to support student learning, they must remove these impediments, replacing them with funding perspectives, mechanisms, and practices that are better aligned with the learning goals they espouse.

In the following pages, you will encounter findings and recommendations that make this case. Given the nation's ambitions for public education, its commitment of resources, and its obligation to responsible stewardship, the time has come to rethink the finance practices that support America's schools. The time has come to fund student learning. We offer this report as a meaningful step in that direction.

Jacob E. Adams, Jr., Chair

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Ambitious Learning Goals Require a New Approach to Education Finance

States will never educate all students to high standards unless they first fix the finance systems that support America's schools. These systems dictate how much is spent, who gets what, how resources are used, and which outcomes are tracked. Unfortunately, the way they do these things no longer matches the results we expect from schools.

State and federal policy now demands that all students, regardless of race, language, economic status, or disability, must achieve a level of success in core academic subjects that has never been broadly accomplished. Educators have made incremental gains toward these goals, and a few locations tout big leaps forward. But by and large America's schools fall far short of these heightened expectations.

At the same time, spending on elementary and secondary schools keeps going up. Between 1990 and 2005, average inflation-adjusted expenditures increased 29% to almost \$11,000 per student (National Center for Education Statistics 2008). With heightened expectations and greater funding as backdrop, one would expect elected officials and educators to ensure that America's substantial investment in public education is used effectively to accomplish its ambitious new goals. Try as they have, though, something isn't working. Conventional modes of funding school improvement, such as across-the-board salary increases, class size reduction, and targeted spending programs, have resulted in greater costs without corresponding gains in performance; and both high- and low-spenders get good and bad outcomes. Something is preventing educators and elected officials from translating resources into results.

Finance Systems Were Not Designed to Support Ambitious Learning Goals

Part of the problem is that today's finance systems were never designed to support such uniformly high levels of student learning, particularly when the task calls for closing achievement gaps and making the greatest gains with students who have been poorly served. Instead, these systems were constructed piecemeal over decades to fund enrollment, build schools, support programs, hire staff, and provide extra dollars to needy students. They

pay salaries fairly, protect against financial wrongdoing, promote resource equity, and accommodate intergovernmental funding. All these ends are reasonable, but none inherently promotes greater learning.

Finance System Operations Impede Better Results

What's more, the way these systems operate actually impedes better results. For instance, funding arrangements are so complex and decisions are made in so many places that it is difficult to deploy resources strategically or track their effects. School district budgets can run to hundreds of pages yet still tell only part of the story. In fact, the connection between dollars and students is easily lost at the district level where central office managers translate dollars into programs, services, and complex staffing arrangements, and where lower-level decisions, and school budgeting that uses average teacher salaries rather than real labor costs, mask the way resources finally get divvied up.

At the same time, resource fairness remains a problem. States have tried for decades to distribute dollars more equitably across school districts but with only limited success in terms of equalizing educational opportunity. Now we know the problem goes deeper. Recent analyses, many sponsored by SFRP, documented how schools within the same district receive widely varying levels of support (for example, Roza 2005). Others showed how funding formulas themselves can worsen the very imbalances they were supposed to resolve (Cross and Roza 2007; Liu 2007), even how conflicting government agendas can prevent targeted aid from reaching the targeted students (Roza, Guin, and Davis 2007). The largest resource inequities actually occur across states, but this issue has been largely ignored (Liu 2006).

Where educators have good ideas about matching resources with needs, they often lack the flexibility to use resources in those effective ways. Targeted spending programs and traditional collective bargaining agreements apply one-size-fits-all solutions to schools facing different challenges and levels of funding. Targeted spending sets aside dollars to support categories of students, special initiatives, or activities (English learners, class size reduction, and transportation are examples, respectively). California operates about 80 such programs, known as "categorical funding," which have grown from a quarter to a third of total state spending on average, and can make up a much higher percentage of total spending in any one district (EdSource 2008). Like collective bargaining agreements, which cover a majority of district resources, categorical funding comes with rules

dictating how resources can be used. In combination, therefore, targeted spending and collective bargaining restrict the range of local decisionmaking, limiting superintendents' and principals' options for promoting student learning. As states finance a greater share of education costs and make wider use of categorical funding, resource decisions in districts and schools will become more constrained and less strategic.

Finance system incentives are out of kilter, too, promoting personal and program interests over student learning. Here again, targeted spending is a culprit. These programs create powerful inducements for educators to use money in prescribed ways, regardless of the fit with local educational need or consequences for student learning. One superintendent similarly reported that he prefers new money in categorical form even though it diminishes the coherence of his instructional program, all because it keeps the dollars off the collective bargaining table (De Wys et al. 2008b). Program participation rules similarly create perverse incentives to over-identify students with problems or to keep them in specially funded programs longer than necessary. School employees funded by these programs often take their direction from program administrators in the district office rather than the principals or instructional coaches for whom they work—just as district officials take direction from state officials, and state officials from federal officials—setting up conflicts about who directs the instruction students receive.

Even if incentives pushed in the right direction, local educators often lack the knowledge, skills, or tools they need to manage resources effectively. To paraphrase one principal: “I know how to use money accurately [meaning, according to his budget], I just don't have anything in place that helps me use it effectively” (De Wys et al. 2008). That educators lack frameworks or tools to align resources with student learning is not surprising: they have not needed these tools until now; the related knowledge and skills are largely missing from administrator licensing (Adams and Copland 2007); and university-based administrator training remains unconnected to learning standards and unresponsive to principals' day-to-day realities (Wallace Perspective 2006). The system simply has not done much to make effective resource use part of educators' routines.

Problems arise on the far end of the resource pipeline as well, where financial accounting and accountability obscure important transactions and provide accounts that overlook critical outcomes. Conventional reporting practices track spending in terms of general- or restricted-purpose funds, programs (regular, special, or vocational-technical education), functions (broad activities like instruction, administration, or transportation), and objects (commodities such as salaries, books, and electricity). These categories are useful for

matching revenues with expenditures, assessing school district fiscal conditions, and other fiduciary purposes, but they reveal little about whether and how resources are used to achieve academic results. Likewise, financial accountability promotes compliance with spending rules, not whether spending boosts student achievement. At the same time, accountability tied to student performance falls on schools that have little or no control over how their resources are used. In this regard, the system is fundamentally unfair, and educators' resistance to being held accountable under these circumstances is understandable.

These system attributes manifest to greater or lesser degrees across states and districts. At either end of the spectrum, it is hard to know what is going on or whom to hold accountable.

Today's Finance Systems Miss the Connection Between Resources and Learning

The upshot is that today's education finance systems constitute a haphazard collection of agendas, components, and practices that miss the connection between resources and learning. In effect, the rise of ambitious learning goals for all students changed the context of education finance, and longstanding finance structures suddenly became mismatched with public expectations.

If the system is the problem, then funding student learning requires more than merely adjusting funding levels, tinkering with distribution formulas, creating new programs, imposing another sanction, or singling out hot-button issues. The system itself must be transformed so that resources can better support the ambitious learning goals the public now demands. This task requires new ways of thinking and acting. From today's vantage, however, continuing the disjuncture between resources and student learning only diminishes governmental decisionmaking, public accountability, and student learning.

Integrating Resources and Learning Through Continuous Improvement

How can finance systems align education resources with student learning goals? A legislative work group in Washington State, organized around this very question, discovered no answer and recommended marginal changes in funding formulas instead (Washington Legislature, House K-12 Finance Work Group 2004). A subsequent Washington gubernatorial commission set out specifically to make the connection between resources and learning but also fell short. It urged new spending on math and science education and remedial assistance for students facing a high-stakes test—both important investments—but it skirted the more fundamental issue of redesigning education finance to support student learning (Washington Learns Steering Committee 2006). In both instances, elected officials failed to find a funding framework that links resources and learning. Instead, they defaulted to incremental changes in current practice, which is to say, they defaulted to routine. Meanwhile, legislators in Arkansas and Wyoming enacted new funding systems based on a theory about linking resources with student learning that their respective courts found constitutional even though system operations that impede better results remain unchanged. This report makes that connection more thoroughly.

Linking resources and learning is a difficult challenge because it is so different from what education finance does now. A simple systems analysis illustrates the point.

Systems operate on the basis of inputs, processes, and outputs. Take the automobile, for example. We fill our cars with fuel, the engines convert the fuel to energy, and that energy propels us down the road. All the while, we keep an eye on our fuel gauges to judge whether we have enough gasoline to get to the next destination. If not, we refuel, and the cycle starts again.

If we apply that same thinking to education finance, then elected officials would provide resources to schools, schools would convert those resources to educational programs, and those programs would result in student learning. Except we know from recent experience that the ambitious results states desire have not materialized. Earlier we argued that conventional finance systems were never designed to support ambitious student learning; that,

in fact, these systems impede better results. While true, we need a closer look at the way finance systems deliver, manage, and account for resources to understand why they do not support these ambitious new goals.

The Logic of Conventional Finance Systems Omits Student Learning

State and federal agencies provide money to school districts for three basic purposes: enable programs, equalize spending capacity, and advance specific priorities. Funding formulas handle the first two purposes; categorical programs address the third. Superintendents and school board members are expected to be good trustees with their general-purpose dollars, spending with due diligence and without deficits, favoritism, or fraud. They are expected to be faithful implementers with their categorical dollars, spending on students, initiatives, or services as directed. Districts use the fund, function, and object accounting we already described to shape budgets, report financial activities, and demonstrate compliance with spending rules (table 1, second column).

TABLE 1. UNDERPINNINGS OF CONVENTIONAL AND LEARNING-ORIENTED FINANCE SYSTEMS

System Attribute	Conventional Finance System	Learning-Oriented Finance System
Resource target	District	Student
Link between resources and educational programs	Separate	Integrated
Institutional process <i>(resource management)</i>	Program fidelity <i>(spending in required categories)</i>	Continuous improvement <i>(effective use)</i>
Accountable outcome	Compliance	Student learning
Link between resources and student outcomes	Missing	Transparent

This system design is clear, auditable, and transparent regarding the flow of dollars, but it has almost nothing directly to do with student learning. As a process of resource distribution,

management, and accountability, conventional finance systems operate in a closed loop, separate from learning outcomes and the educational program or school improvement activities that promote them.¹ This separation was particularly evident from the 1960s through the 1980s when property wealth disparities and resource equity dominated finance policy. The remedy, resource redistribution, was easily handled without regard to how new monies would be used by districts and schools.² And while the ideas behind the adequacy movement—regarding the level of funding needed to support student learning goals—have brought the resource and student learning tracks together to a degree, they haven't altered basic finance structures in ways that could make the merger really meaningful.³

The closed loop works as long as finance systems only enable programs, equalize spending, and advance specific priorities. These purposes require that resources simply create opportunities: fund students, build schools, hire teachers, and so forth, and these actions can be managed centrally. The closed loop stops working, however, when the finance system is challenged to support particular levels of student learning.

Indeed, conventional systems provide evidence of compliance and fiscal propriety, but there is no feedback loop that indicates whether or how resources influenced student learning. When analysts try to find a resource-learning connection within district and school operations, they encounter the complexity, inflexibility, contrary incentives, misaligned accounts, and other impediments we introduced earlier. All these system parts have a logic, but it is not a logic of learning. Regardless of the amount of money devoted to schools, conventional systems will not connect it to the outcomes that now matter most.

Not surprisingly, the characteristics of a learning-oriented finance system (table 1, third column) anchor resource distribution, management, and accountability directly in students and their academic accomplishments. The contrast between the second and third columns of table 1 prepares us to understand what must change so that resources can be aligned with student learning.

1. Principals, superintendents, and others certainly are attempting to use resources more effectively to improve student outcomes (see, for example, De Wys et al. 2008a, 2008b and Hansen et al. 2007a, 2007b). The point here is that finance systems are not structured to support their efforts.

2. Policies needed only to create new spending opportunities. In fact, the opportunity alone was the "result" policymakers sought.

3. School finance "adequacy" is concerned with the level of funding needed to get all students to the ambitious levels of achievement represented by state standards.

Integrating Resources with Learning Is Key

Cementing the connection between resources and student learning requires foremost the integration of resource decisions with instruction and school improvement plans, activities, and accounts. In short, when student learning matters, resources must be used explicitly and strategically to accomplish results.

Table 2 (see page 9) illustrates the difference between conventional and learning-oriented school finance systems. In contrast to conventional practice, a learning-oriented system ties funding levels to academic goals, ensures that resources are used productively to promote student learning, supports a coherent instructional program, supplies the teachers that students need, and uses compensation to encourage strong performance. Accountability in a learning-oriented system tracks whether and how resources were used to support academic goals, and it holds students and decisionmakers throughout the system accountable for their contributions to learning. Such direct connections between resources and student learning are the only way to see how districts and schools convert resources into results or to explain why results fall short. From a systems perspective, when resource management (budgeting and spending in required categories) is indistinguishable from its outcome (complying with spending rules), then resource effects on student learning will always be uncertain. In contrast, when resource management promotes learning directly (shaping coherent instructional programs, matching teacher skills and student needs, inducing better performance, accounting for academic results and the ways they were achieved), then finance systems become meaningful to the public's demand for higher achievement.

Resource integration thus introduces a broader view of educational resources: not just dollars and the things they buy—teachers, time, books, and buses—but also the things that give them meaning: individuals' motivation, flexibility, information, knowledge, and skills. These latter assets affect the way resources are managed, hence their contributions to student learning. Therefore, they are just as important—just as much a resource—as books or buses.

TABLE 2. FUNDING PERSPECTIVES IN CONVENTIONAL AND LEARNING-ORIENTED FINANCE SYSTEMS

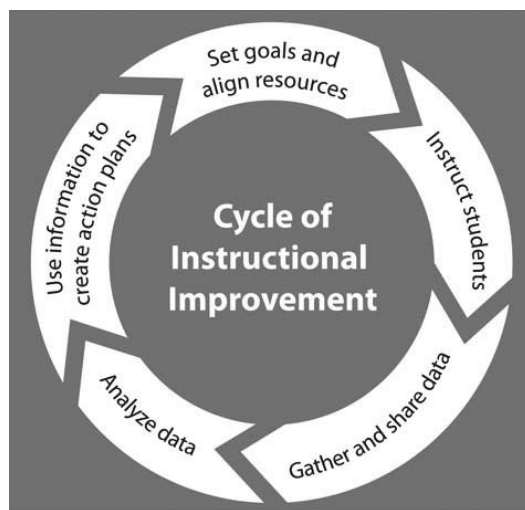
Conventional Finance System	Learning-Oriented Finance System
Is every student funded?	Is funding sufficient to raise all students to academic standards?
Are institutions, programs, and priorities funded?	Are education resources used effectively to promote student learning, that is, to motivate, enhance knowledge and skills, understand and fund what works, and make productive tradeoffs among resource choices?
Did federal, state, and local policymakers fund their priorities?	Did federal, state, and local funding support a coherent instructional program?
Have school districts paid for and provided a teacher in every classroom?	Do human resource policies and practices supply the teachers schools need?
Are staff paid fairly?	Does compensation encourage strong performance?
Did spending occur in required categories?	Did resource use support academic goals?
Are superintendents and school boards compliant with spending expectations?	Are students and decisionmakers throughout the system accountable for their contributions to learning?

Continuous Improvement Focuses Resource Management on Learning

As a practical matter, resources must support learning in classrooms, schools, and districts where educators are striving to accomplish new and higher outcomes, where student and teacher needs vary, and where ultimate success is a distant goal. Educators and elected officials need a strategic framework broad enough to organize these endeavors across different settings and clear enough to accommodate their respective roles. “Continuous improvement” provides just such a framework.

Continuous improvement (figure 1) positions teachers, principals, and superintendents to consistently improve teaching and student outcomes through a cycle of goal setting and resource alignment, instruction, assessment, analysis, and adaptation (Weiss 2007). The process works like this:

FIGURE 1. THE CYCLE OF CONTINUOUS IMPROVEMENT



First, working within the structure of state content and performance standards, principals and teachers, supported by superintendents, set learning goals that move their students closer to the academic proficiencies the state expects them to achieve.⁴ For each grade level and content area, the goals indicate what standards will be taught, what level of performance must be met, and what periodic assessments will enable teachers to gauge student learning and enable principals to support teacher and student needs.

With goals clearly established, principals and superintendents then must align their resources with these goals. Alignment represents a fundamental way of connecting education's means and ends. For teachers, principals, or superintendents, aligning resources with learning basically means: (1) using resources more effectively (whether devoting resources to the core academic areas that define public ambitions, or building on what the field has learned about resource strategies that work), and (2) shifting resources to

4. While state standards and tests represent the learning side of the resources-learning connection, we acknowledge that state perspectives on what students should know and how to measure that knowledge may evolve over time. Those changes, however, should not prevent states, districts, and schools from making progress in linking resources and learning.

these more effective uses, or eliminating inefficiencies in non-instructional spending, such as pensions, health, and energy costs.⁵ Proposed legislation in California reflected this perspective when it sought “the best use of available resources so that the vast majority of pupils may meet academic performance standards established by the state” (California Legislature 2006).

Managing resources effectively contrasts sharply with the current program-fidelity process in conventional finance systems. Rather, effective use focuses the entire cycle of resource distribution, management, and accountability on student learning. Thus, it brings clarity to the discussion about the finance “system” that can support ambitious academic outcomes for all students, and it can guide resource decisions productively whether funding levels are rising, falling, or holding even. The resource component of continuous improvement is explored more thoroughly in the next section. For now, let’s continue with a general description of the continuous improvement process.

With school and classroom goals and resources in place, the second step in continuous improvement is for teachers to do what they do best: engage students with good teaching and high-quality curriculum. Continuous improvement, in fact, does not require a particular teaching method. How teachers and principals shape instruction is up to them. However, the framework does emphasize the importance of having a clearly articulated educational approach, a high-quality curriculum aligned to learning goals, and a repertoire of diverse classroom techniques to engage all students and meet their needs. At school or district levels, this also might mean experimenting with different instructional methods whose effects can be measured and compared, so that over time more effective methods can be adopted.

Third, teachers, principals, and superintendents gather information that tracks students’ academic performance. This type of information includes, for example, progress assessments, accountability tests, and measures of academic growth. It encompasses course enrollments and dropout rates, exemplars of student work and the time it took them to reach proficiency, and the effects of curriculum and teaching. It covers students’ family background characteristics as well as observations of the classroom, school, and community environments that affect students’ and teachers’ attitudes and behavior.

5. On eliminating non-instructional resource inefficiencies, see Willis, Durante, and Gazzero (2007). On teacher pensions, see Hansen (2008).

Such information:

- helps teachers identify student progress and sticking points;
- helps them collaborate to improve instruction;
- informs principals and superintendents about struggling teachers and professional development needs; and
- highlights gaps or weaknesses in the curriculum.

The fourth step in the continuous improvement process calls on teachers, principals, and superintendents to analyze that performance information so they can assess the strengths and weaknesses of teaching and learning.

Analyses could focus, for example, on:

- which students mastered the content, which did not, and why;
- how students should be grouped for reteaching and enrichment activities;
- what new strategies might help students understand concepts they missed the first time; and
- how time and other resources should be adapted to maximize teacher and student learning.

The last step in the process is for those same teachers, principals, and superintendents, now informed by their careful examination of the data, to develop new goals and resource plans that build on the instructional and performance strengths they observed, address the weaknesses they uncovered, and propel the cycle into another round of teaching, testing, analyzing, and planning.

At the classroom level, for instance, teachers could use performance information to develop action plans for their students, adapting instructional practices or using intervention strategies that help students over particular humps. At the school level, principals and coaches could use the data to ensure that teacher assignments are appropriate, altering them where necessary, and to target professional development activities. At the district level, superintendents could make large-scale adjustments to curriculum, re-assign principals, or decide what programs to stop or replicate and which schools to close. For these purposes, school-level performance information could be augmented by research regarding what works—successful school models that are operating elsewhere—or experiments across schools using different mixtures of resources, including tradeoffs among teachers and

technology or other outside-the-box resource arrangements. For parents and students, too, this kind of information could help them see what is working and what is not so that all schools can be held accountable for results.

These adaptations are essential to helping all students achieve at high levels. Resource adaptation complements alignment. It acknowledges the reality that student needs and educator skills vary, thus the mix and application of resources across schools may be dissimilar. In this regard, education is no different from public health, where one distinguishes between general prescriptions for a healthy lifestyle and the particular treatments that help individuals achieve good outcomes. Resource adaptation, therefore, ensures that the fundamental process of connecting education's resources and goals happens in schools and classrooms.

Policy and Practice Both Need to Change

Continuous improvement is not a new concept. Indeed, effective educators incorporate this strategy almost instinctively. They maintain high expectations for student learning, align instruction and assessment with those expectations, collect and analyze information about student outcomes, support struggling students, consider the effectiveness of their instruction, and change their classroom activities as necessary. At this time, they do it with limited ability to align and adapt resources. The key is to remedy these impediments, then make this process of instruction, reflection, and adaptation the core resource strategy of every school.

Continuous improvement is, however, a fundamentally different institutional process for managing educational resources. It shifts the resource focus from districts to students and moves resource accountability beyond compliance to student learning. It promotes learning directly by blending resources and resource adaptations with high-quality information about teaching practices and student results, knowledge about what to do with the information, and flexibility to act accordingly. As an institutional process, therefore, continuous improvement illustrates how resource and instructional decisions can be integrated, thus how resources can support student learning. Importantly, too, continuous improvement provides transparent feedback on whether and how resources influenced student learning.

Because continuous improvement is fundamentally different from conventional practice, its success depends on a different set of working conditions. For instance, continuous

improvement requires that teachers, principals, and superintendents are motivated to accomplish ambitious learning goals, and that they have the resources they need to make instructional improvements. It must provide educators with the flexibility to adapt resources to circumstances and the know-how to do that effectively. It also assumes that educators have access to good information on instruction and student outcomes and that their accountability mechanisms are fair and effective. Our assessment of conventional finance systems tells us that these working conditions do not exist now at a level that supports today's ambitious student learning goals.

Continuous improvement, therefore, depends on changes in both policy and practice. Teachers, principals, and superintendents must adopt the framework, for starters. Then they must develop the inclinations and skills that make collaborative goal setting, resource alignment, instruction, assessment, analysis, and adaptation integral to each school's routine and each district's expectation. There is nothing stopping willing educators from doing this right now, though there is much that diminishes its potential. Educators can use information at hand plus their familiarity with classroom and school circumstances to fit resources to needs, as best they can.

Meanwhile, local, state, and federal elected officials and their agents must alter finance structures and practices, consistent with the learning orientation, to provide educators with the flexibility, inducements, capacities, information, opportunities, and accountability that make continuous improvement an effective means to integrate resources with learning.

How Teachers, Principals, and Superintendents Manage Resources for Continuous Improvement

Continuous improvement calls on teachers, principals, and superintendents to align resources with learning goals and adapt resources to local needs (table 3). What does this look like in practice? How might these educators more effectively deploy resources to support their academic ambitions? How do they move resources from less effective to more effective uses? No one presently can answer these questions in a way that holds up across all settings or remains fixed over time. However, the field knows more now than ever before and educators and districts can do a better job by taking advantage of this knowledge (for example, Odden 2007).

TABLE 3. HOW EDUCATORS SUPPORT CONTINUOUS IMPROVEMENT

Requirement	Action
Adopt continuous improvement as the core resource strategy for schools and districts.	Set clear goals and align resources with those goals.
	Engage students effectively with good teaching and high-quality curriculum.
	Gather performance information that tracks academic progress.
	Analyze performance information to assess strengths and weaknesses of teaching and learning.
	Develop action plans and adapt resources to build on strengths, address weaknesses, and propel the cycle forward.
Move resources from less effective to more effective uses.	Begin with a “first approximation” of effective resource deployment.
	Make resource tradeoffs that support core instructional goals and needs.

Begin with a “First Approximation” of Effective Resource Deployment

Schools and systems that have improved student performance, sometimes substantially, do so in similar ways (for example, Education Trust 1999; Hawley 2002; Marzano 2003; Odden and Archibald 2001; Williams, Kirst, and Haertel 2005). They set ambitious goals for student performance; adopt a high-quality curriculum; and invest heavily in teacher training, including summer institutes, longer work years, and instructional coaches. They provide extra help for struggling students, such as tutoring, extended days, and summer school. They use smaller class sizes in grades K-3, and they restructure the school day to deliver instruction more effectively—for instance, using block schedules or double periods. They base decisions on performance information, routinely discuss good instruction, and bring professional knowledge into schools through research, research-based products, and expert trainers.

For local educators launching a continuous improvement process, seeking confirmation of existing resource plans, or revising plans that came up short, this “first approximation” of effective resource deployment represents a plausible way to begin aligning resources and student learning goals. It harnesses what the field knows now, but it is not a resource prescription or a solution to the system design problems identified earlier. It addresses the problem that resources often are not effectively aligned with learning goals or instructional needs, and it signals that steps can be taken immediately, within existing finance arrangements, to get better results. One analysis estimates the cost of these resources at \$9,200 per student, or about 84% of the 2008 national average expenditure per pupil, though actual costs will vary across states as their student populations, teacher salaries and benefits, and costs of doing business differ (Odden, Goetz, and Picus 2007).

Make Resource Tradeoffs that Support Core Instructional Goals and Needs

Of course, no starting point, whether based in research, other districts’ or schools’ experiences, or successful charter models, negates the need for teachers, principals, and superintendents to tailor resources to their own circumstances. Part of this adaptation process requires them to understand that resources and their costs are interrelated, that tradeoffs can be made to leverage better outcomes, and that resources can be redirected

from business-as-usual practices toward more research-based instructional strategies and supports. In other words, resource choices are never cost-neutral nor equal in terms of their effects on student learning.

Adapting resources to local needs requires local educators to consider the relative advantages of resource options, such as:

- investing in teaching quality (through hiring, professional development, job structure, collaborative planning time, performance incentives, or new uses of on-line materials);
- creating more individual attention and support for students (through differentiated learning, smaller group sizes, and reduced teacher loads in high-need areas);
- using student time strategically (longer blocks, for example, or varying time and instructional programs to meet needs), or flexibly organizing staff and other resources to support instructional programs (via flexible job definitions, work schedules, and part-time staff;
- integrating categorical program resources; or
- leveraging expertise inside and outside schools (Frank and Hawley Miles 2007).

By exploring the relationship between resources and instructional needs, educators can deploy resources in more effective ways that also fit their circumstances. The admonition here is to analyze the connection between resources and academic goals and to reallocate resources from less effective to more effective uses. Aligning resources with goals and adapting resources to local needs is an ongoing process—part of the cycle of continuous improvement.

How Elected Officials and Departments of Education Support Continuous Improvement

Elected officials and departments of education support continuous improvement already by adopting content and performance standards, crafting accountability systems, and funding America's schools. These contributions define public expectations, track education's progress, and enable educators' work. Local, state, and federal officials do this work within their respective domains, and continuous improvement does not change these roles. While essential, these actions alone will not bring about the continuous improvement envisioned in this report.

Equally important, elected officials and departments of education must create the finance system conditions that support continuous improvement (table 4). Absent this support, as recent experience demonstrates, standards, accountability, and resources can lose their purchase on student learning. The policy challenge here is to remove the structures, rules, or practices that prevent educators from using resources effectively. From a systems standpoint, decisionmakers can create these positive conditions by delivering resources transparently and flexibly, focusing and enabling the work of educators to convert resources into results, and accounting for resource use in ways that connect resources with student learning.

Deliver Resources Transparently and Flexibly

Delivering resources transparently and flexibly, by itself, can remove many of the impediments associated with conventional finance systems. Transparent funding maintains the connection between resources and students so that it is easy to see who gets what and how resources are used to promote learning. Flexible funding gives teachers, principals, and superintendents the freedom to align resources with instructional goals and to adapt resources to student, classroom, or school circumstances.

Attach Federal, State, and Local Funding to Students

One way to create transparent and flexible funding is to convert federal, state, and local general and categorical dollars (except severe disability, which remains a separate funding stream) into student-based funding that supports students' basic and special needs, then adjust this amount for regional cost differences. This approach assigns an increment of funding—a “weight”—to each student. The weight represents an estimate of the funding needed to educate that student effectively. A student with no special needs would be assigned a weight of 1.0. Students who face additional educational challenges, such as poverty, language acquisition, or mild disability, would receive additional weights that boost their overall funding. For example, a weight of, say, .15 for poverty indicates that a low-income student would receive 15% more funding than students not from a poverty background.⁶ Different weights can be assigned to any one student, and the sum of those weights represents the total amount of funding for that student. That amount can be adjusted for regional cost differences and then distributed to districts, where the process repeats to include local funding.

Variations of this approach have been discussed in other forums and have been implemented at the district level in Seattle, Houston, and Edmonton, Canada, under the name “weighted student funding.”⁷ Its value lies in funding students and their educational needs directly in dollars, rather than indirectly via programs, grants, staffing ratios, and other allocation mechanisms, all of which muddy the connection between resources and the students they are intended to serve. Student-based funding restores that connection, simplifies the resource distribution process, and establishes students as the resource target. Student-based funding also is consistent with the resource flexibility that supports continuous improvement; it neither privileges past practices nor forecloses new methods. In short, attaching dollars to students maintains the resource focus on student learning.

6. Alternatively, the poverty weight could increase depending on the poverty concentration of the school that a student attends.

7. See also, Thomas B. Fordham Institute (2006) and Ouchi (2003). Similar proposals have been made in California. See Bersin, Kirst, and Liu (2008) and Governor's Committee on Education Excellence (2007).

TABLE 4. HOW ELECTED OFFICIALS AND DEPARTMENTS OF EDUCATION SUPPORT CONTINUOUS IMPROVEMENT

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

Deposit Student-Based Funding into School-Linked Accounts That Operate on the Basis of Real-Dollar Budgeting

The additional step of depositing student-based funding into school-linked accounts connects resources and students even further. The term “school-linked” leaves open the question whether districts or schools actually manage the money. Either is possible, depending on the instructional strategy and decisionmaking capacity in each location. Either way, the school-linked accounts ensure that dollars reach students’ schools, bypassing the multiple allocation formulas, salary averaging, and well-meaning decisionmakers that divert these funds to other purposes (Roza 2005).

The combination of student-based funding, school-linked accounts, and real dollar calculations enables educators to align and adapt resources flexibly, supporting a school’s continuous improvement process while also dealing accurately and transparently with the consequences of its resource decisions.

Focus and Enable Educators’ Work

Once resources reach schools, continuous improvement can succeed only to the extent that teachers, principals, and superintendents focus on ambitious levels of student learning, have good data to inform their resource choices, and possess the knowledge and skills to make these choices wisely and the flexibility to act accordingly.

Elected officials and departments of education can promote these conditions by:

- developing performance incentives for adults and students;
- creating information systems that link student performance, finance, and human resource information;
- building educators’ abilities to align and adapt resources effectively; and
- exploring reform-oriented collective bargaining.

Develop Performance Incentives for Adults and Students

While federal and state accountability policies have stirred educators nationwide to seek better results, few, if any, incentives reinforce that performance focus at the individual level

(for example, De Wys et al. 2008a, 2008b; Hanushek 2007). Conventional finance systems lack positive incentives that urge individuals to higher performance, yet they tolerate contrary incentives that weaken instruction. Student-based funding addresses the contrary incentives. The remaining policy challenge is to craft positive inducements that inspire adults and students to accomplish ambitious learning goals.

Performance incentives already have been identified as a central strategy for achieving better academic outcomes, and business-oriented leaders and educators have recommended them (see, respectively, Ladd and Hansen 1999 and Committee for Economic Development 2004). Educators in general, however, are not used to the concept of performance incentives, and teachers particularly give them mixed reviews. Some favor rewards related to things they control, such as work location or subject area, but not student performance (Farkas et al. 2003; Goldhaber, DeArmond, and DeBurgomaster 2007). Still, the concept is gaining attention. Denver, Texas, Florida, and other locations have launched prominent experiments with performance pay. The federal government has funded a national research center to examine the individual and institutional effects of performance incentives in education, and it created an incentive fund to promote performance-based compensation for teachers and principals.⁸

State and district decisionmakers need to draw on these resources to craft incentives that fit their particular contexts. Analysts have begun outlining the principles and practices of incentive systems, most often focusing on performance pay for teachers and accountability for schools (Center for Educator Compensation Reform; DeArmond and Goldhaber 2008; Hanushek 2007; Odden and Wallace 2007). Other options are possible. Design work on student incentives lags behind, even though performance levels will never change unless students themselves take on the work.⁹ Key development questions must be answered: What motivates teachers and students? What range of intrinsic and extrinsic rewards reflect that motivation? How can incentives operate best in educational settings? What elements guarantee their fair and reliable application?

The development effort is worthwhile. In a context of new learning goals, incentives can reorient work toward the content and performance standards that define success. In a context of never-before-achieved goals, incentives can encourage persistence and boost

8. See National Center on Performance Incentives (www.performanceincentives.org) and Teacher Incentive Fund (www.ed.gov/programs/teacherincentive/index.html).

9. For a discussion of student motivation, see, for example, Goslin (2003).

effort. In a context of uncertainty about how to accomplish such goals, incentives can lead to innovation and new evidence about what works and how much it costs (Guthrie and Hill 2007). As part of broader human resource policies that recruit and retain teachers, build teachers' expertise, support needy students, and emphasize core content, performance incentives can play an important role in providing the teachers that students need. In short, incentives represent a powerful way to integrate resources, broadly construed, with instruction and student learning.

Create and Support Information Systems That Link Student Performance, Finance, Human Resource, and Family/Community Information

Performance information fuels the continuous improvement process. It enables educators to track students' academic progress and to assess the strengths and weaknesses of teaching and learning. It enables teachers to adapt resources to student needs; principals to adapt resources to teacher needs; and district leaders to make large-scale resource adjustments, evaluate experiments with alternative resource uses, and judge the value of strategies employed elsewhere. And these applications can create the habit of relying on good information among building-level educators and district-level leaders alike. Thus, continuous improvement needs data systems that track students, blend school with family and community information, and link resource, instruction, and student performance information.

This call for good information comes amidst broad federal, state, nonprofit, business, and philanthropic efforts to design, implement, or upgrade educational data systems—all of which provide a basis for additional state or local action.¹⁰ It bears reinforcing here because of information's central role in continuous improvement, hence in the system that supports student learning.

Develop Educators' Abilities to Align and Adapt Resources Effectively

Of course, having performance information at the ready is one thing; knowing what to do with it is another. That educators lack frameworks and tools that would help them use resources more effectively has been noted. However, with continuous instructional

10. See, for example, the federal government's Statewide Longitudinal Data Systems Grant Program (<http://nces.ed.gov/Programs/SLDS>), Florida's K-20 Education Data Warehouse (<http://edwapp.doe.state.fl.us/doe>), the Council of Chief State School Officers' School Data Direct (www.schooldatadirect.org), Standard & Poor's School Evaluation Services (www.schoolmatters.com), and the Bill & Melinda Gates Foundation-sponsored Data Quality Campaign (www.dataqualitycampaign.org).

improvement shaping school and system change, educators' strategic and management skills become central to success. Learning-oriented finance systems must improve the capabilities of teachers, principals, and superintendents to understand and interpret resource-related information in a context of ambitious learning goals, and to use this information to integrate resource decisions with instructional and school improvement plans, activities, and accounts.

Ambitious learning goals demand that educators:

- distinguish core instruction and instructional supports from competing resource demands;
- understand effective resource use;
- match available resources with instructional needs; and
- make choices and tradeoffs to strengthen teaching and learning.

This requirement implies the need for training but also for efforts to recruit individuals who want to work in a continuous improvement environment and to be rewarded on the basis of improved productivity. In such a context, investment funds that promote such knowledge and skills become an essential complement to the work that needs to get done and could be included in a student-based funding formula.

Encourage Reform-Oriented Collective Bargaining

Traditional collective bargaining agreements are problematic for learning-oriented finance systems in general and continuous improvement environments 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.¹¹

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.

The combination of positive incentives, performance data, resource knowledge and skills, and reform-oriented collective bargaining brings new energy and capabilities to the continuous improvement process. It is the job of elected officials and departments of education to marshal these tools in support of teacher and student outcomes so that the conditions they create can move the nation closer to the results it now demands.

Expand Resource Knowledge and Experiment with New Methods

Even if educators and elected officials launched continuous improvement efforts today, their success would be limited by what educators and system leaders now know and are able to do.

Fund Research and Development on Resource Use and Continuous Improvement

To move beyond “first approximations” to better conditions for student learning, elected officials, together with educational leaders, philanthropies, and analysts, must define and fund a research and development agenda that expands the boundaries of resource knowledge and practice. This expansion requires a commitment to create and test new

11. See, for example, the agreement between the Montgomery County (MD) Public Schools and the Montgomery County Education Association (<http://mcea.nea.org/Publication/Contract.html>).

ideas, develop new tools and methods, and incorporate these developments into everyday school affairs.¹² Substantial development work needs to be done, for instance, on the range of ideas in this report.

In the absence of experiments and other investigations to discover what works, under what conditions, for whom, and at what cost, no one reasonably can expect to learn important resource lessons, such as how much to spend, how to use resources effectively, how to focus behavior, how to support teaching and learning, or how to account for resources and results. This is especially the case during a transition from old to new expectations and system structures and in the presence of gaps between learning ambitions and student performance. A research and development investment further protects states, educators, and families from unnecessary and unfair system upheaval. That investment is central to the system's improving over time.

Strengthen Charter Laws, or Create Other Mechanisms, to Allow Outside-the-Box Experiments on Resource and School Options

Getting all students to standards takes educators and elected officials into new territory. Thus, part of the answer to the resource questions posed above may come through experiments on wholly new resource, instruction, or school options. Accordingly, elected officials need to establish structures that support experiments on unconventional alternatives, such as labor-technology tradeoffs, variable pricing for non-core services, rapid-response capabilities, new teacher roles and assignments, or laboratory schools that better link research and practice (Monk 2007).

Laboratory schools, or lab settings within existing schools, provide one way to test a wide array of possibilities. Such settings allow constant experimentation with new uses of funds and forms of schooling. The schools' costs would depend on their size and the scale of research, but the starting point should be the same for every school—no hidden costs or subsidies—augmented by the direct costs of the experiments themselves. Once established, lab schools require freedom of action to test plausible ideas, a reasonable time horizon to allow new methods or tools to develop and, conversely, the ability to let go of innovations that fail, as some will. Leaders in these settings must understand the gamut of school and classroom operations, technology and systems development, research methods, and dissemination strategies. The schools likely will require voluntary enrollment, and they

12. For a discussion of research and development in education, see Guthrie and Hill (2007).

should be held accountable based, in part, on the success of the research and development process and, in part, on their contributions to student learning.

Continue to Investigate How Much Money It Takes to Get All Students to Standards

No one is sure what size public investment is needed to get all students to standards, and this uncertainty works against a closer alignment of resources with academic goals. Because no school or district has yet achieved standards across all student groups, it is not possible to know with certainty how much money it takes in any one school, much less multiple ones. In the absence of such knowledge, funding levels are negotiated and changed incrementally, based on available resources and competing demands. In democratic government, that is not wrong, but neither is it sufficient. As with funding levels in general, the empirical basis for determining how much funding is needed to address challenges such as poverty, language acquisition, or disability is weak. Thus, insufficient evidence exists for determining the weights used in school funding formulas.

Analysts have begun to address the “how-much” question, but their answers are imperfectly developed, based on current schooling arrangements that make inefficient use of many resources, and an emerging research base (Loeb 2007). Estimates of adequate funding vary and are the source of growing debate. Educators’ perspectives also vary regarding the amount of money needed to educate all students to standards. In these circumstances, more research can better judge appropriate funding levels in general and address particular educational challenges.

Expand the Research and Development Agenda to Link Education with the Broader Array of Resources Available to Children and Youth

The research and development activities described above go a long way toward addressing the knowledge-related conditions needed to support ambitious learning goals for all students, but they do this only from the perspective of schools and school systems, overlooking the contribution of family and community influences on student learning.

Critics of the predominant standards-based approach to education argue that schools alone may not be sufficient to close the achievement gap. According to one analysis, approximately 40 percent of children risk educational failure because of complex social, economic, and emotional problems, many of which stem from poverty (Kirst 2007). Neighborhoods

of concentrated poverty, in particular, create conditions that undermine good outcomes for children, including poor health, crime, high unemployment, bad housing, drugs, and inadequate social services. Students experience these influences away from schools, and they bring the consequences into schools.

As a result, improved student performance may depend on both inside- and outside-school strategies. A community resource component might include a physical place and a set of partnerships among schools and social-service or community agencies. Partnerships could enable educators and other service providers to address the academic, social, emotional, and physical development of children as a whole, while also supporting families and surrounding communities. Community connections could be financed by diverting existing streams of children's-services funding, such as health, social services, and juvenile justice, to a location at or near school sites. Changes to state and federal funding mechanisms may be necessary to create better alignment among these efforts and to support efficient and effective school-linked services, such as incentives for agency collaboration and flexibility, and for cutting across historically separate children's-service domains. Adding a community component to the research and development agenda allows these explorations to take place productively, perhaps determining the optimal allocation of resources among school and community settings.

Redesign Resource Accounting and Accountability

Redesigning the way resource use is reported and used for accountability removes a final set of impediments from conventional finance systems.

Revise Governmental Accounting and Financial Reporting Standards and Practices to Reflect Outcome Principles and Measures

Resource accounting and financial reporting are driven by national standards. The U.S. Department of Education codifies these expectations for state and local school systems based on guidelines from the Governmental Accounting Standards Board (National Center for Education Statistics 2003). The gap between conventional and learning-oriented finance illustrates why these standards and practices must be revised to support student learning. Differences manifest particularly around the notion of “useful” information.

As we noted, conventional accounting and financial reporting practices are useful primarily for fiduciary purposes: matching revenues with expenditures, comparing actual expenditures to approved budgets, assessing school district fiscal conditions, and ensuring compliance with spending regulations. Learning-oriented finance systems also require sound management, but their central purpose is to use resources effectively to achieve academic results. This attention to productivity requires different information.

For instance, the simplicity and flexibility of student-based funding and the learning focus of continuous improvement invite an additional approach to resource reporting than simply the “fund, function, and object” accounting used today. Learning-oriented systems require financial tracking mechanisms that effectively integrate resource, instruction, and student performance information for schools and districts.

In this regard, conventional information is particularly useful to external audiences: the public, legislative and oversight bodies, and investors and creditors (bond holders and vendors, for example). Learning-oriented systems recognize these audiences, too, but draw their attention beyond balanced budgets to academic results and the resources that supported them. They also must serve internal audiences: the classroom, school, and system leaders who must align resources with instructional needs and adapt resources to local circumstances. In other words, in learning-oriented systems, accounting and financial reporting must promote the system’s outcomes, not just tally its funding.

All told, conventional accounting and financial reporting obscure or overlook important transactions and provide accounts that miss important outcomes. Learning-oriented systems must integrate resource, instruction, and student learning information and use this information to get results. Accounting and financial reporting must serve these ends.

Define Resource Responsibilities and Structure Contingencies on Jobs, Schools, and Funding

To treat this set of issues otherwise—to hide transactions, provide accounts that reveal nothing of importance, hold wrong parties accountable, or omit consequences that focus on behavior—would strip accountability of its role in democratic government and its utility in funding student learning.

Accountability provides information, but it also operates as an incentive, assigning consequences for good and bad performance. To do so effectively and fairly, these systems must

recognize clearly who is accountable to whom for what, provide agents with freedom and responsibility to act, create transparent and meaningful accounts so that all parties can understand what happened, and include consequences that promote effective performance. Those consequences fail to motivate, however, unless the persons held accountable believe that they are real and unavoidable. By the same token, those same individuals will reject the consequences if they view them as unfair.

Learning-oriented finance systems create new opportunities to assign both responsibility for resource decisions and consequences for results. In the context of continuous improvement's ongoing resource choices, tradeoffs, and adaptations, the core challenge is to clarify resource responsibilities, then make continued support contingent on results. If resource uses are not getting results, they should be replaced; if individuals or schools are not getting results, poor performance should be remedied or ineffective individuals or schools replaced. Contingencies could apply across levels of government, too. State officials, for example, could make state funding contingent on a school district's finance system being in order. Of course, contingencies must be commensurate with one's contribution to the result; that is only fair. Still, contingencies are necessary and legitimate attributes of accountability.

Defining resource responsibilities and structuring contingencies falls to elected officials, but they will not want to put new ideas forward without careful discussion among representatives of the affected parties. Accountability has to fit circumstances, but to work as intended, all parties must view it as legitimate.

The combination of revised accounting practices, learning-oriented accounts, clear and differentiated resource responsibilities, and real contingencies re-orient financial accountability from compliance to student performance and provide a fair basis to hold educators and schools accountable for student learning.

Transforming Finance Systems to Support Ambitious Student Learning Goals

Taken together, these recommendations create a new learning-oriented *system* for education finance. This system uses continuous instructional improvement to align and adapt resources to instruction and student needs. It uses student-based funding, school-linked accounts, and real dollar budgeting to create transparency and flexibility and to deliver resources to the students they are intended to serve. It uses positive incentives, performance information, new decisionmaking capabilities, and reform-oriented collective bargaining to support the conversion of resources into results. It uses investments in research and development, strengthened charter laws, and laboratory settings to supply schools with new tools and methods and better notions of cost. It uses new financial reporting and funding contingencies to create meaningful accounts and accountability. This system defines respective roles for educators and elected officials. It fundamentally alters resource distribution, management, and accountability.

Remember, It Is a "System"

But here's the key: it takes the sum of these actions, not isolated experiments, to create learning-oriented school finance systems. In other words, the system is the key to supporting student learning. The description here assumes that these parts are present and working. Thus, it assumes knowledge about funding levels for general- and special-needs students, decisionmakers' knowledge and skills, effective incentives, meaningful accounts, and so on. If parts are missing, poorly designed, or badly implemented, then the system becomes less coherent and less effective. Accordingly, readers are cautioned about judging any of these recommendations apart from the others. For example, nothing here recommends local resource choices in the absence of greater decisionmaking ability, or funding contingencies without clear responsibilities or good data. This interconnectedness should encourage elected officials and educators to think in system terms but not to forget that systems are assembled one component at a time and improved over time.

Similarly, no one should judge the potential of these system components based only on limited experiences with any one of them to date. Experiments with student-based funding

or performance incentives, for example, have not benefited from the system complements that define their full potential. States and districts have approached these experiments as silver-bullet solutions whose benefits depend only on how they operate alone, not as one part of a system whose effect on learning depends on all the parts working together. In contrast, continuous improvement in classrooms and schools requires transparent and flexible funding; the incentives, information, and other conditions that focus and enable educators' work; the research and development efforts that expand resource knowledge and experiment with new methods; and redesigned resource accounting and accountability. These things together, not any one of them alone, address the finance system challenges identified in this report. The challenge for policy and practice both is to find ways to move incrementally toward learning-oriented finance systems within their particular state and local contexts, while also creating opportunities to experiment with the whole design.

Balancing Risk and Reward

Because this learning-oriented finance system implies substantial change, it is important for readers to recognize the safeguards it contains. For instance, the transformation of categorical funding into the more flexible student-based funding is balanced by the introduction of school accounts; real-dollar budgeting; and the reporting of expenditures by school, instructional strategy, and student outcomes. While these actions make targeted funding more flexible, they also make it more transparent and tie it more closely to academic results. Similarly, greater resource discretion in districts and schools is balanced by greater accountability, enhanced local decisionmaking capacity, and the information and professional collaboration that drive continuous improvement. The use of incentives, particularly contingencies on jobs and schools, is balanced by the requirement to match contingencies with individual responsibility. And the incremental gains implied by continuous improvement are balanced by potential non-incremental results from research and development. In sum, these actions bring new forces to bear on educational resources but not without regard to their implications or risks.

This Work Is Hard and Necessary

Funding student learning is hard work. It represents system-wide change rather than the relatively easier task of creating single programs, changing an allocation formula, or adjusting a funding level. Broader changes imply a thicker web of actions, consequences,

costs, and uncertainty. As a practical matter, these issues argue for sequenced changes, smaller-scale pilots, and intensive research and development.

Funding student learning is hard, too, because the changes that enable it redefine the resource roles and responsibilities of elected officials and educators. Under this scheme, elected officials set standards, provide funding, invest in incentives and capacity, and define accountability. Within these boundaries, educators then align and adapt resources to local circumstances, controlling the way resources are used. That is, elected officials create the context for learning, but educators determine the means to achieve it.

Funding student learning is hard, finally, because the status quo is embedded in finance arrangements that have persisted for decades, and questions remain about whether and how various stakeholders will mobilize to support or oppose such changes. Much of the challenge comes down to the way stakeholders perceive winners and losers. Every categorical program, distribution formula, side deal between superintendents and principals, demand from parents, and provision in teacher contracts—all these resource arrangements—benefit some interests and not others. Yet, against the measure of ambitious learning outcomes for all students, many of these arrangements fall short. Altering these conventions means that “winners” and “losers” may change, too. The potential of a learning-oriented finance system thus depends on the willingness of individuals, groups, and communities to place student learning above narrower adult or organizational interests. To the extent that they trump the public’s interest in student learning, the chance that resources will be used to support that success diminishes.

While challenging, this work also is necessary. The consequence of business as usual is student learning well below expectations, and worse performance among poor and minority students. In the parlance of the day, the status quo leaves many children behind.

That more students are not performing at high levels signals the need to search for solutions. Conventional finance systems not only fail to support better student outcomes, they actually impede them. Who is satisfied with this result? If elected officials, educators, and communities want to accomplish ambitious student learning goals, if they want public resources used more effectively to accomplish those goals, then education finance systems must change.

Adopting continuous improvement, moving resources from less effective to more effective uses, delivering resources transparently and flexibly, focusing and enabling educators’

work, expanding resource knowledge and experimenting with new methods, and redesigning resource accounting and accountability create finance systems that integrate educational resources with student learning. In so doing, they also support the dedicated and talented teachers, principals, and educational leaders who work hard every day, no matter the circumstance, to help students succeed. Learning-oriented finance systems expand the boundaries of educators' work, provide supports they now lack, and hold them accountable for what they accomplish. This report's recommendations represent a better chance to accomplish more.

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