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“A False Dilemma”: Should Decisions about Education Resource Use Be Made at the State or Local Level?

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Over the past 30 years, states have assumed a greater role in financing education. The presumption of local control has been superseded by systems of state control. This shift in authority raises several critical questions. Chief among them is, “What effect has centralization of education financing had on the capacity of school districts to provide educational services?” Has increased state participation led to a more equitable, effective, accountable, or efficient system of education? The authors suggest that the question poses a false dilemma. Instead of questioning who should control resource decisions, we should ask, “What obstacles prevent better connections between real dollars and valuable resources for students?”

What Looks Like a Dilemma for State Education Finance Leaders

Since the early 1970s, traditional patterns of school governance in many states have changed dramatically. The presumption of local control, a 150-year-old system based on local electoral accountability, has been superseded by systems of state control. Decisions previously made under local discretion—resource allocation, curriculum, student assessment, and student promotion and graduation—are now part of state policy.

California exemplifies how state/local relations have been redefined for the purposes of K–12 public education finance. The state’s role in direct fiscal support to schools was limited until the late 1970s, as local property tax revenues composed the major share of school funding. Local property taxes

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provided around 60 percent of K–12 funding, while the state provided 34 percent. Federal dollars made up the remaining 6 percent. Nearly 90 percent of a district's revenues were general purpose or unrestricted, meaning districts had a free hand to decide how to allocate those funds. California's current school finance system is radically different. Today, the bulk of funds comes from state coffers and is state controlled. The amount of money districts have to spend each year is determined almost entirely by the legislature. For all practical purposes, California has a centralized education finance system controlled by the state.

The transformation of the state's school finance system raises important questions. Chief among them is, "What effect has the centralization of education financing had on the capacity of California's nearly 1,000 school districts to provide educational services?" What difference does it make where the money comes from? It is not intuitive to a layperson how different funding sources affect services. After all, money is money.

In most states—and California is no exception—funds come with strings attached. As states have assumed the majority share of funding for public education, state lawmakers use their funding formulas to exert pressure on what is purchased and how districts deploy resources. In California, of the 67 percent of state funding, 40 percent is restricted in some way, meaning that money must be used only for state-specified purposes (California State Auditor/Bureau of State Audits 2004).

And herein lies the controversy. Not everyone believes the state's significant role in deciding how districts use money is a favorable trend. *Education Week* reported in March 2008 that a "grassroots rallying cry" was pushing states to loosen the "reins on school districts" (Jacobson 2008). The article points out that some state policy makers agree, as evidenced by new state initiatives to grant districts more fiscal flexibility. Proposals in Georgia and Nevada would grant freedom from state constraints on resource use in some or all districts. Since 2004, California, too, has consolidated over 40 state categorical programs into various block grants. However, these initiatives buck the larger trend of states to determine how resources are used in education.

With increased state participation in resource use, several critical questions emerge. The first question played out at the forefront of education finance

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policy over the last two decades: Does state control over resources guarantee a more equitable system for students than local control? The second question has emerged as a result of continued disappointment in the academic performance of disadvantaged students: Does state control or district control of resources provide more effective education? The third question is tied up in state and federal accountability systems: Do state or local decisions on resource use keep districts and schools accountable for outcomes? The fourth question has recently emerged in states like California, where projected budget shortfalls necessitate that states “do more with less”: Is state or local control more likely to provide a more efficient system of public education? Each dimension of the problem sheds light on a core dilemma for state policy makers: Should the state impose decisions about how resources are used in districts, or should local districts and schools make those decisions?

In this article, we claim that this question poses a false dilemma. As researchers, we find extensive evidence suggesting we should reject policies promoting state decisions about resource use. We simultaneously find evidence that suggests rejecting local decisions. Perhaps more important is that we also find research implying we may be asking the wrong question. Instead of questioning who should control resource decisions, we could ask: What obstacles prevent better connections between real dollars and valuable resources for students?

The article applies this framework to the policy landscape in California, as it exemplifies the policy questions at play in many states. The article describes both the research and evolution of California’s now largely state-controlled funding system in the context of the above-mentioned four dimensions: equity, effectiveness, accountability, and efficiency. In each dimension, we explain how evidence can refute arguments both for and against state control of resources. Next, we rely on research to show that the core problem for state policy makers is how better to connect real dollars with relevant resources. Finally, we offer suggestions for California state policy makers on improving the state education finance system.

Increasing State Decisions about Resource Use in the Name of Equity

Legal challenges in the early 1970s claimed states held primary responsibility to fund education, prompting their larger role in financing public education. Arguments about equity centered largely on per pupil spending differences across districts (horizontal equity). By increasing the state share of education resources, states like California dramatically reduced interdistrict funding disparities based on local property wealth (Kramer 2002). Many of the districts

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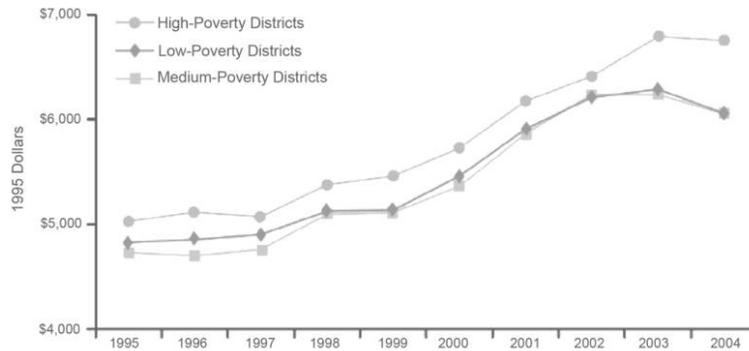


FIG. 1.—Change in time in operating expenditures by types of California school districts

that benefited early on and have continued to benefit are high-needs districts with struggling students (fig. 1).

States can improve equity across districts without imposing state decisions on the use of funds. However, this trend has not evolved in California. One research study, *District Dollars: Painting a Picture of Revenues and Expenditures in California's School Districts* (Loeb et al. 2007b), examined revenue patterns among California school districts. Table 1 displays some of the key findings from the study.

As the data indicate, once funds reach California districts, these districts have little discretionary authority. While unrestricted funds comprise an average of 65 percent of total per pupil general fund expenditures, approximately 95 percent are tied up in salaries and benefits.¹ This means that while the state progressed in leveling per pupil expenditure across districts, districts and schools had little flexibility in how to allocate resources. Although some districts benefited from the increased revenues that came with state intervention, others argued against state involvement in how resources were used.

Equity Goals Not Realized at School Level

In terms of equity, it's fair to say discussions have become more nuanced in the last three decades. First, there's the notion of vertical equity, where high-needs students get a larger share of resources. Here again, the case has been made that states are best equipped to make sure that happens. Indeed, the Loeb et al. (2007b) study found that urban, high-needs districts spent more per pupil than other districts.

However, in the last decade, the need to look beneath the district lid to

TABLE 1

CA Districts Have Little Discretionary Authority Over Funds: Selected Revenue and Expenditure Data for CA School Districts, 2004–5

Category	Amount/ADA (\$)	Total (%)	Unrestricted (%)
General fund expenditures:	7,384	100	
Unrestricted	4,800	65	
Restricted	2,584	35	
Salaries:			
Teachers	3,112		
Administration and supervision	424		
Benefits	1,035		
Total salaries and benefits	4,571	62	95

SOURCE.—Loeb et al. 2007b.

determine whether high-needs schools and students receive an appropriately larger share of district resources has surfaced. In other words, does state progress toward equity across districts ensure progress toward equity across schools and children? We start uncovering problems at the school level.

The underlying theory of categorical program funding is that dedicating funds to specific student groups improves vertical equity of inputs (needier students get more resources) toward equity of outcomes (closing achievement gaps). Conceivably, in response to evidence documenting misuse of funds, those dedicating the funds want to go beyond providing the funds to prescribe the ways in which they are used. Furthermore, the allure to policy makers of categorical funding grows from the belief that categorical program compliance provides some regulatory oversight and guarantee that additional resources are targeted to students who need them.

Getting Down to Facts studies—a research project of more than 20 studies designed to provide California’s citizens with comprehensive information about the status of the state’s school finance and governance systems—assessed, among other things, whether California’s state system of school finance hindered or abetted effective use of resources to meet state educational goals. The studies note the inexorable growth of categorically funded programs, which restrict how resources can be allocated (Loeb et al. 2007a). One of the study’s conclusions is that an increase in these programs negatively affects student achievement (Duncombe and Yinger 2007).

In many states, fiscal evidence suggests high-needs schools in urban districts are not receiving appropriate funding for their students. Evidence from California also shows that state categorical programs do not necessarily direct funds to students who need them. A 2004 study of categorical finance in

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TABLE 2

High-Poverty Schools Are Shortchanged Unrestricted Funds: School-Site-Specific Spending per Pupil (Elementary Schools)

Category	Low Poverty (\$)	High Poverty (\$)
Unrestricted	4,409	3,621
Compensatory education	23	454
Special education	687	603
Other categorical	376	730
Local restricted	142	112
Maintenance and operations	476	606
Total	6,113	6,126

California found significant, sizable variation in the amount of categorical funding received by school districts with similar demographic characteristics (Timar 2004). The study concluded that categorical dollars targeted to student need were not allocated on that basis and argued there was no rational basis for the allocation of some categorical programs (Timar 1994b).

In a study of California schools by the Public Policy Institute of California (Rose et al. 2006), we find this very problem (see table 2). High-poverty schools receive compensatory education funds and other categoricals, but they are shortchanged on unrestricted funds. The effect is that despite targeted funds amounting to over \$1,000 per pupil, high-poverty schools receive only \$13 per pupil more than low-poverty schools.²

The findings are difficult to interpret, but they suggest that districts offset the earmarked funds for high-needs students by directing a larger share of unrestricted funds to lower-needs students. The result suggests that state (and federal) programs, intended to boost spending at high-needs schools above and beyond what's spent on low-needs schools, are not working. Similarly, the evidence poses the question of whether districts can and would honor vertical equity if they had increased flexibility in funds.

How and why do districts divert more of their unrestricted funds to wealthier schools? Some research points out the vested interests that play hard at the district level: parents who lobby for an extra music or technology teacher at their school, labor unions that promote salary schedules and seniority teacher assignment policies that create the effect of paying out higher salaries to more experienced staff who consistently congregate in wealthier schools,³ and seasoned principals who know how to work the system. If the patterns evident in unrestricted funds indicate what districts would do if more restrictions were lifted, we can't assume districts would expend a larger share of resources on

high-needs students. Policy makers in California have explicitly targeted new state dollars to restricted funds in an effort to protect them from going entirely to teachers' salaries through collective bargaining.⁴

It is no surprise, then, that state lawmakers respond by earmarking more and more funds with prescriptions that funds be spent in certain ways on high-needs students (Loeb 2007b). Specifically, the Loeb study found that while high-needs districts may have higher overall revenues, the difference is almost exclusively in restricted revenues. Here again, the higher funds from the state, even those expended in the name of vertical equity, have the effect of more constraints on district flexibility. However, there are other options for the state to ensure that some portion of funds reaches schools with higher-needs students besides creating prescriptions, which we discuss in later sections.

Will State Prescriptions for Resource Use Guarantee More Effective Use of Funds?

The second question regarding state funding is whether state prescriptions can ensure more effective use of funds, particularly as they relate to closing the achievement gap. One line of research suggests that when left to district discretion, funds are not optimally allocated for effective learning (Miles and Darling-Hammond 1998). These studies imply that a redistribution of existing resources may affect student outcomes in positive ways (Odden and Archibald 2001). The Accelerated Schools Program is one example that builds on this theory (Levin 1995).

Much of this kind of thinking played out in the policies that ultimately promoted state categorical programs. The history of categorical programs goes back to the 1960s and Title I of the Elementary and Secondary Education Act. A primary purpose of the law was to provide financial assistance to school districts that suffered from the adverse "impact that concentration of low-income families have on [their] ability . . . to support adequate educational programs" (Yudof et al. 1992, 699). It also provided direct support to children by funding programs to meet their special needs. In an effort to secure local compliance and guarantee federal funds flowed only to eligible students, the U.S. Office of Education cast an ever-widening regulatory net. While these efforts are well documented, it is important to note that regulation and compliance eclipsed the pedagogical dimensions of federal compensatory aid: the elaboration of substantive and procedural rights, the requirement for clear audit trails for local expenditure of federal dollars, federal and state sanctions for misuse of funds, and the growth of a vast state and local bureaucracy to monitor local compliance.

Numerous research studies indicate the policy framework of Title I shaped

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behavior in schools in several unintended ways that, in the long term, inhibited organizational effectiveness (Duncombe and Yinger 2007). The preoccupation with regulatory compliance denigrated instructional practice by undercutting professional judgment and authority and fragmenting both schools and students. Policy dissected children into disparate program targets. Although it seems naive in retrospect, federal policy makers believed a regulatory net over schools would overcome the incapacity, ineptitude, or indifference of local schools serving poor, low-achieving students. While such strategies likely forced some schools to improve, there is no evidence that such policies had a measurable impact (Timar 1994a).

State policies mirrored federal policy. California's counterpart to Title I was Economic Impact Aid. In the late 1970s, the largest administrative unit within the California Department of Education was the Field Services Unit, which was responsible for monitoring and reviewing local compliance with federal and state compensatory programs. The state regulatory framework was rooted in distrust of the motives and capacity of local school officials. State officials came to share Washington's belief in stressing compliance as distinguished from assistance (Kirp 1986).

Beginning in the early 1980s, categorical programs in California grew inexorably. In 1980, there were 19 state and federal categorically funded education programs, but by 2003, there were 124 (Timar 2004). In 1980–81, 87 percent of funding was unrestricted. By 2000–2001, nearly 33 percent of school funding was restricted. In 2005–6, roughly 40 percent of state money to schools was restricted. Between 1980 and 2000, average per pupil funding increased by 15 percent in constant, 2000 dollars, from \$5,422 to \$6,232, and the restricted share of those dollars increased from \$705 to \$1,870—an increase of 165 percent. The unrestricted share declined by nearly 8 percent, from \$4,717 to \$4,362. For a school of 500 students, that represents a decline in discretionary spending of about \$180,000.

Categorical program funding is a key strategy that rests on providing additional resources to needier schools to foster improvements in student achievement and narrowing the achievement gap. Thus, California funds before- and after-school programs, summer programs, smaller class sizes, and various intervention programs to help students struggling academically. However, no consistent evidence proves such programs do, indeed, have their intended effects.

Increasingly, research shows that schools “beating the odds” do better not because they have more resources or deploy resources in a particular way—technology, smaller class size, more experienced teachers, and so forth—but because of organizational characteristics.⁵ These characteristics include factors such as higher teacher quality (in aspects beyond formal training and experience), effective implementation of curriculum, data-driven decisions regard-

ing instruction, and greater control over hiring (Perez and Socias 2007). Although higher teacher quality arguably implies more resources, we believe those resources are not necessarily material resources. Resources such as teacher quality are not guaranteed with an increase in material resources from the state but are developed and nurtured at the organizational level (Cohen et al. 2003; Elmore 2000; Grubb 2008).

Both implicitly and explicitly, research shows that no single intervention is a solution to student underachievement. Clearly, there is a necessary threshold of resources for schools to provide quality educational services. The critical difference is in how resources are converted into teaching and learning. In *Making Money Matter: Financing America's Schools*, the National Research Council (Ladd and Hansen 1999) concluded that no single or combination of remedies guarantees higher levels of student performance. They found, for instance, that early childhood programs can have both short-term and middle- to long-term positive effects. However, evidence of the demonstrated, long-term benefit on school achievement, dropping out, grade retention, and high school graduation is unclear. Sustained, long-term benefits depend largely on the quality and nature of programs available to children once they enter the regular school.

Not all categorical programs are compensatory. Special Education, Economic Impact Aid, the Pupil Retention Block Grant, and Targeted Instructional Improvement Grants are programs targeting additional resources to students with special needs. Research evidence, however, consistently indicates these programs have, on average, little to no positive educational impact on low-achieving students. Two evaluations of the Immediate Intervention/Underperforming Schools Program (II/USP), a California state program intended to increase student achievement in low-performing schools, found that students in schools participating in the program did not perform better academically than students in schools that did not participate (Bitter et al. 2005; O'Day and Bitter 2003). An evaluation by American Institutes for Research of the High Priority Schools Grant Program (HPSGP), the successor of II/USP, also did not find educational benefits for participating schools (Harr et al. 2007). This does not mean, of course, that some schools did not benefit (Timar 2006). It does mean, however, that there is no predictable, systematic relationship between program participation and school improvement. On the whole, the effectiveness of state compensatory programs is rarely, if ever, evaluated. There is no evidence, for instance, of whether or how Economic Impact Aid enhances the achievement of poor, minority, ESL students. The benefits are assumed to flow with increased funding.

In addition to embedded funding inequalities, categorical programs are also criticized for their inflexibility and lack of choice. Increased reliance on categorical funding has diminished local capacity to allocate resources according

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to local needs. One Getting Down to Facts study indicated student performance relates inversely to a district's level of categorical funding (Duncombe and Yinger 2007). The legislature, which has little knowledge of particular schools' or districts' funding needs or priorities, increasingly determines resource allocation. For instance, districts could choose to use funds earmarked for class-size reduction more effectively by tying them to individual schools' educational goals and objectives. The categorical funding approach is "one size fits all," and it gives short shrift to local preferences. Indeed, the essence of categorical funding is rooted in an abiding mistrust of local preferences.

State Prescriptions: Necessity or Nuisance?

Some researchers have zeroed in on the relationship between purchased inputs and student outcomes as an optimal way to spend resources. Largely fueled by adequacy studies that asked researchers to define the costs of an optimal resource allocation plan, some defined class sizes, staff mix, length of school day, extracurricular services, professional development needs, salaries, and the like. One Center for Policy Research on Education (CPRE) policy brief summarizes the different research on districts where student performance beats predicted outcomes, suggesting that if resources were spent in ways consistent with the evidence on inputs and student outcomes, we should expect to increase student performance (Odden 2007; Odden et al. 2007).

Advocates of state prescriptions on resource use also point out what amounts to irresponsible spending decisions on the part of districts. A current and often cited example is Arkansas, where state lawmakers augmented resources so that each district had enough funds to cover the evidence-based suggested inputs but did not prescribe how the resources would actually be used. The result: districts spent funds in ways inconsistent with the state model by spending more on electives and teacher salaries and less in other areas such as professional development, tutoring, and the like, which have closer links to student achievement. Predictably, no real performance gains registered. The plan's designers then advised the state to impose more restrictions to compel districts to use funds as prescribed by the state.

This kind of advice has incited strong controversy among education finance researchers, who quickly took sides on the issue (Hanushek 2007). Some argued that districts can't be trusted to make good choices about resource use and student outcomes; therefore, states should make these choices. Others argued on behalf of evidence to support subsidiarity—the principle that such choices should be made by the smallest or lowest unit in production. Districts, they claimed, are already very constrained, and even those with student-based allocation policies haven't fully tried the more decentralized approach to

spending decisions (Ouchi 2003). Further, since these were not randomized trials, it is uncertain that state-imposed resource decisions would have yielded greater outcomes. Those calling for fewer state prescriptions argued that districts are less able to tailor programs to the real needs of students with increased state prescriptions. Perhaps most important is that they point out that many of the conditions in highly successful schools aren't about resources. Highly effective schools have strong principals, use their time well, review evidence, and the like, none of which is necessarily implicit in expenditure schemes.⁶ Essentially, student performance isn't just about what's purchased; therefore, it is unlikely that simply replicating the spending patterns of highly effective schools would guarantee positive results for all students.

Very little is new about these research findings. They mirror the "effective school" research findings from the 1980s and the production function research of the 1990s. However, the ways states incorporate the discussions in revised state finance systems are new. With a much larger share of the funds coming from states, some states are structuring all their allocations around what should be purchased in districts (e.g., North Carolina, Delaware, and Washington State to some degree). Prescriptions for resource use aren't limited to categorical, but rather the bulk of basic allocations are driven out in formulas that explicitly dictate how schools are staffed and students served.

How Do State Prescriptions for Resource Use Fit with New State and Federal Accountability Reforms?

No Child Left Behind and California's Public School Accountability Act signaled an important shift in how policy makers approach the problem of low student achievement. In theory, we are moving away from a compensatory, regulatory model based on categorical program support to a capacity-building and accountability model. By holding districts accountable for student performance (as measured at the school level), the reform suggests that districts (and perhaps schools) hold the key to unlocking student performance. In other words, these accountability reforms imply that if staff in districts and schools do their jobs correctly, student performance will increase. The accountability clauses, it follows, are the motivation. This is an important policy change, as it redefines roles, responsibilities, and relations within the public education system.

Much has been made over apparent inconsistencies in these new accountability reforms and policies that limit districts' discretion. The challenges take the tone of questioning how districts and schools can be held accountable for student performance if decisions about resource use are made at the state,

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rather than the district, level. On the surface, accountability reforms can appear to conflict with state policies.

The problem, in part, is that accountability reforms are set in motion by one group of policy makers and not completely embraced by everyone with decision-making powers throughout the system. A conversation the second author had with one state department official charged with providing state assistance to low-performing schools provides one example. The state official described a program in which federal funds provided for a state assistance model, whereby district leaders could choose the form of their state assistance from a short list of options (a coach, professional development for principals, and two others). The state official was asked who in the system could be accountable for how these resources were used and ultimately whether student performance gains were realized. Specifically, would it be the federal government that funded the program? Would the state department officials devise the limited list of options and provide services for districts? Or would the district leaders who made the choice from the state receive the services? The state official replied: "Well, I guess we all are [accountable]. We're all part of the decision." Unfortunately, her view doesn't really align with the accountability structures put in place by the state and federal reforms. Furthermore, in diffusing decisions about resource use, one might wonder whether it simply renders the notion of accountability meaningless.

Efficiency: Doing More with What We Have

"Efficiency" is a ubiquitous term in state education policy circles for good reason. Many states face projections of budget shortfalls and wonder how they will either make new investments in education or, in some cases, even continue with steady state funding. California is one such state, with proposals to cut programs and costs across most public sectors, including education.

For most, improved efficiency implies that public education could do more for students with the same or fewer dollar revenues. Finance policy discussions approach this idea in three ways. The first is the most conventional and assumes that there are some efficiencies of scale or production that could free up dollars. In Delaware, a Boston Consulting Group efficiency study analysis indicated how districts might share some services (data warehousing, costs for some special education staff, etc.) to reduce costs without adverse effects on services. In Seattle, McKinsey Consultants recommended a new payroll system and improved teacher-hiring processes.

Other approaches to efficiency closely examine where decisions about resource use are made—at the state or district level. One view holds that resources are more efficiently deployed when decisions are made more closely

to students. Arguably, when states make one-size-fits-all decisions, these decisions cannot possibly be informed by the unique needs of the students. For example, Georgia's state policy decision to fund a "graduation coach" in every high school has been criticized as inefficient. The new full-time position is tasked with addressing dropout rates by working directly with high-risk students in each school (Jacobson 2008). While this strategy represents one distinct approach to addressing truancy, other approaches such as small schools and magnet schools rely on a different model. Similarly, there may be districts where the candidate pool doesn't surface anyone with the appropriate skills or availability. Or there may be schools that aren't battling a dropout problem but instead need assistance more appropriately tailored to the school's student makeup. In any of these cases, the state-prescribed resource is often considered an inefficient use of funds, and education could become more efficient if such decisions were made at the local level.

The flip side to this view purports that state policy makers are better consumers of education research and thus better able to turn that evidence into policy prescriptions that, although an imperfect fit in all cases, may improve overall efficiency. In Arkansas, findings about seemingly inefficient district decisions on resource use—namely, to increase elective offerings instead of providing tutoring or other investments with documented links to student performance—support this notion (Grubb 2008). According to this view, the more efficient option is for states to look at the bigger picture of evidence and incorporate that into prescriptions for resource use at the district level.

The last approach to thinking about efficiency centers on whether more innovative approaches to schooling might surface new school models (not yet apparent to state policy makers) that enhance efficiency by increasing results or decreasing costs. In this vein, state prescriptions impede innovation, effectively cementing in the current approach. Innovation, however, requires that districts and schools have the flexibility to try new approaches.

To Constrain or Not To Constrain: *Not* the Question for States Struggling with the Structure of District Resource Allocations

We discuss in this article how the policy debate over educational resource allocation shuttles between highly prescriptive allocations on the one hand and flexible allocation on the other. While each view has marshaled arguments along a continuum of state versus local control, the debate has created something of a false dilemma. It is clear that evidence on whether decisions about resource use should be made at the state or local level hasn't been conclusively resolved. Reputable researchers disagree justifiably though vehemently on whether state finance systems should increase constraints on resource use or

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remove them. Some of the evidence surfaced to date suggests that state constraints on district spending yield an inequitable, ineffective, and inefficient use of resources that contradicts our newly implemented state and federal accountability systems. Meanwhile, other evidence suggests that state flexibility yields the same results.

The conflicting evidence suggests that there may be something wrong with the question. Clearly, looking back over the arguments for both sides, there are indications that the question posed is the wrong one. Throughout education finance research, we find policy makers struggling with how to structure the flow of funds such that they are more effective, equitable, and efficient. In each case, however, what seems to matter more are factors that aren't as directly related to money. To this point, it helps to take a thorough look at what we do know about the link between money and valuable student resources.

Before the current debate on who should control resource use, there was a long (and still ongoing) debate over whether giving schools more money would result in higher student achievement (Betts et al. 2000; Brown and Saks 1987; Dolton and Vignoles 2000; Ferguson and Ladd 1996; Grissmer et al. 1997; Grubb 2006; Grubb and Huerta 2000; Hanushek 1989; Hanushek and Rivkin 1997; Nyhan and Alkadry 1999). The literature on the relationship between resources and outcomes is quite mixed. Some researchers argue that money may positively influence student achievement if it is used in concert with specific reforms (Murnane and Levy 1998). Others argue that additional money is more important for minority or disadvantaged students (Grissmer et al. 1997). However, some studies show that increasing funds to schools does not significantly raise student test scores (Nyhan and Alkadry 1999). In spite of the claims these studies make about outcomes and funding, they provide no evidence about why schools either succeed or fail in making money matter in terms of student achievement.

Findings from traditional production function studies that the effects of resources are, more often than not, statistically insignificant are often interpreted as "money doesn't make a difference." This interpretation reflects the relatively small and variable effects of school resources compared to the powerful and consistent effects of family background. These debates generally revolve around technical issues of model specification, sampling, and data analysis.

Inputs Currently Purchased with Dollars Aren't the Only Important Inputs

Recently, this line of discussion has been reshaped. While the production function studies tend to treat education processes as a black box without paying attention to the conditions of teaching and learning, the “new school finance” moves away from looking at dollars in isolation and instead seeks to assess how resources are actually used in the schools for purposes that will contribute to specific student outcomes (Grubb and Huerta 2000). The debate over whether money matters continues, but now it seems to be set in a context of other factors, such as the relevant plan or purpose for money, school leadership, use of time, and so forth (Goe 2004). This new perspective suggests that it is important to know how schools use resources and what other nonfinancial factors are present. Without knowing these factors, it is no surprise that we find that increased revenues alone will not increase test scores or any other outcome. Reducing class size, hiring more experienced teachers, and purchasing new textbooks, instructional materials, and equipment are unlikely to have a predictable impact on student outcomes unless all of those factors changed the manner of teaching and learning in some significant way.

More recent research seeks to identify nonfinancial factors that mediate the effects of purchased resources. The research has surfaced some consistent factors that appear to interact with purchased inputs to determine whether investments link to student outcomes and, particularly, to closing achievement gaps.

For instance, when policy makers in California created the state's educational accountability program, they also created interventions to help low-performing schools—the II/USP and HPSGP. Participating schools were required to provide school improvement plans and to show how they intended to use program funds. However, as noted earlier, the results were quite uneven. Some schools were able to use program funds well while others were not. A study of how schools used HPSGP funds found a number of factors that either supported or impeded school improvement (Timar and Kim 2010).

The study did not find that schools that used resources in particular ways—to hire literacy or math coaches, to provide before- or after-school programs, to reduce class size, to spend more on professional development—had better results than those that spent program funds on new technology (e.g., computers, LCD projectors, software, whiteboards) or instructional materials. Instead, what mattered were organizational factors. Schools with constant principal and staff turnover, lacking a coherent improvement plan, or with little or no evidence of strategic planning or teacher collaboration were unlikely to use program funds in a meaningful way—that is, to build effective instructional regimes (fig. 2).

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Factors Facilitating Improvement	Factors Impeding Improvement
<ul style="list-style-type: none"> • Organizational stability and continuity <ul style="list-style-type: none"> -High degree of social capital and trust -Stable teaching staff -Stable and competent leadership -Focus on developing leadership among teachers -Focus on school as the organizational unit rather than collection of classrooms. • Leadership and vision • Action plan that is working document that reflects strategic planning <ul style="list-style-type: none"> -Organizational coherence -Commitment to an improvement strategy -Ongoing assessment and evaluation • Collaboration and professional development • External support • Coherent program funding tied to strategic plan 	<ul style="list-style-type: none"> • Organizational instability and constant change <ul style="list-style-type: none"> -Organizational fragmentation and individual isolation -Classroom rather than school-centric focus -High turnover among teacher and administrators • Compromised leadership <ul style="list-style-type: none"> -Lack of district support -High staff turnover -Lack of leadership skills • Action plan developed for funding purposes; ignored once funding approved <ul style="list-style-type: none"> -No coherent or consistent improvement strategy -No commitment to change • Little or no technical assistance or support • Program budgeting is opportunistic and ad hoc

FIG. 2.—Factors facilitating improvement vs. factors impeding improvement

Several national school reform efforts that focus on high-performing, high-poverty schools come to similar conclusions. Mass Insight, in their publication “The Turnaround Challenge” (Calkins et al. 2007), summarizes interventions adopted by some large urban school districts, including New York, Chicago, Miami-Dade, and Philadelphia. A central feature of reform is allowing greater school-level authority and flexibility for resource allocation. Rather than a laundry list of school improvement activities, the report recognizes the necessity for improvement that changes operating conditions in schools. The report notes that most interventions tend toward “silver bullets” instead of fully integrated strategies. A strong principal, a small learning community, and a longer school day may be important, but each by itself is insufficient to produce systemic, sustained change that endures when the strong principal is gone and the school day shrinks (Stewart and Kingston 2006).

Like other studies we examined, the CPRE study concludes that unless current and new resources are spent more effectively, increasing the portion spent on instruction will be unlikely to impact student learning. Odden (2004) claims in a paper that draws from various studies that some schools have doubled achievement rates—defined as the percentage of a school’s students who are proficient in reading and math. What those districts had in common was allocation of resources in strategic ways. Some of the common practices they found include:

- setting high goals

- the use of formative, clinical assessments
- investing heavily in teacher training
- extra help for struggling students
- smaller elementary class sizes
- creating “professional school communities”
- strong teacher and principal leadership
- focus on research-based practices and professional knowledge.

Whereas researchers had for years thought of conventional resources as the primary inputs, studies of the dramatically different effects of these same resources suggest some other factors are at play. As one study posits, while reducing class size presents a clear fiscal investment, its effect on student literacy matters just as much on the fiscal investment as it does on teachers’ motivation levels, use of time, and interaction with students. Cohen et al. (2003) suggest it isn’t just conventional resources (teacher qualifications, class size, books, supplies, etc.) that matter, but also “personal resources” (which they define as practitioner will, skill, and knowledge) and “environmental and social resources” (which they define as academic norms, professional leadership, and family support). They note, “While we might debate the categories of these non-fiscal factors that work to mediate the effect of fiscal resources, it is clear that they do influence student outcomes. Yet these factors get very little attention in discussions of state finance reform. Over the past 40 years, state policy makers have relied primarily on money to leverage school improvement. Money, however, never told us the whole story” (315).

One way to think about these other factors is to consider them a kind of “resource” for schools. While clearly a nonfinancial resource in our current model, they represent important inputs that are brought to bear in the schooling process. Teacher motivation, principal leadership, use of time, attention to data, and a coherent plan for improved achievement are real inputs, even though policy makers don’t purchase them in the conventional sense. Recognition of these factors as resources implies a reframing of fundamental policy questions about finance and school improvement. The question shouldn’t be whether the state should or should not prescribe conventional resource use, but rather how can we work to link these important nonfiscal resources so that they are strategically deployed across schools and systems.

The Real Dilemma: How Can We Monetize the Full Range of Student Resources?

If things like leadership, staff motivation, effective planning, and use of time are important resources for education, we might ask why these things are

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unconnected to the dollars the public expends on education. Is it that we can't measure motivation and leadership and thus can't structure allocations that deploy these things?

Actually, evidence from other sectors suggests that money can be connected to these other types of resources. Salaries can be structured to reflect the characteristics exhibited in the work staff do. Where there is evidence of high-quality instruction, and the quality of the product shows it, salaries can increase. Similarly, individuals with superb leadership skills can and often do have salaries that reflect those qualities. Furthermore, where services provided are particularly effective, the costs of those services in the open market quite often do reflect that quality.

Perhaps the problem isn't that nonfiscal factors interact with fiscal resources to determine student performance. Rather, maybe it's because we haven't yet connected these nonfiscal factors to our current finance system by monetizing them. If so, the next step for state policy makers is to ask: How can we monetize these other important resources so that allocation policies can more effectively allocate resources that matter for students? What stands in the way of connecting real dollars with these important resources?

An Agenda for States: Connecting Real Dollars to Resources

Our current finance system only controls a small portion of the inputs in our education system. Dollars can be used to purchase numbers of employees, formal employee credentials (such as years of longevity), employee job classifications (teacher, teacher aide, principal, etc.), the structure of services (e.g., after-school programs, in school tutoring), supplies, facilities, and so forth. What's left to chance are employee effectiveness, commitment and motivation, use of time, capacity for leadership, quality and effectiveness of services, strategic planning, and other seemingly intangible inputs that may trump our current dollar investments in terms of relevance to outcomes.

Rather than accepting the current state of affairs and continuing to focus only on those resources attached to real dollars, we assume it is theoretically possible to have a system in which dollars can and do link to more of these other inputs. Then the imperative for education finance policy is to connect a larger portion of relevant inputs to real dollars.

So how is this done? Clearly, we'll never be able to monetize every last relevant resource input in a way that makes dollars perfectly predictive of effects. Then again, even a little progress on this front could enable policy makers to make headway on their goals of increasing student performance. We suggest four types of input resources that could be better connected to real dollars:

- a) *Nonformal qualities of teachers and staff.* Public education has long been criticized for its lockstep salary schedules that rely only on longevity and formal education credentials as inputs into compensation. These two formal qualifications have very little predictive value on the effectiveness of the teacher, yet they dictate relatively large portions of our education dollars. Fully 10 percent of education dollars are spent on teacher longevity alone, which arguably has only a tiny relevance to student learning (Roza 2007). A more relevant finance system would purchase the relevant qualities of teachers and staff, as is evidenced through research. Specifically, salaries would reflect teacher and staff commitment, motivation, willingness to use data, and other qualities clearly linked to student progress. Reconnecting this single largest expenditure item with the real value means rethinking teacher and staff compensation systems such that they reflect the important professional qualities that are identified in the research.
- b) *Desirable organizational elements of schools.* Another area identified in the research is schools' organizational attributes. Teacher turnover and staff stability, collegial interactions among faculty, collective commitment to vision and strategy, and shared learning experiences have all been identified as relevant inputs for effective schools. Yet the reality is that in our finance model, resource allocation systems have no specific connection to these input elements without specifically working to build or support these inputs. Rather, the relevant organization elements occur more as a result of chance. Dollar resources are structured independently of these relevant resources. For example, the existing finance structure doesn't recognize in any structural way staff stability, even though staff stability can be an important input. Schools are "resourced" (staff full-time equivalents [FTEs] sent out to schools) with no way to recognize that some schools have double or triple the teacher turnover present in other schools. Actually, where turnover has the effect of dramatically lower teacher salaries (mainly due to most classes being taught by very junior teachers), no extra dollars are allocated to compensate for that inequity. In a finance system invested in these important organizational elements, dollar allocations would be linked in some way to these characteristics so that the desirable organizational characteristics occurred more deliberately rather than just by chance.
- c) *Leadership qualities of principals.* Much like the logic for tying teacher and staff compensation to the relevant qualities that matter for student learning, principal compensation could be better tied to leadership qualities that so clearly affect progress toward effective teaching practices.
- d) *Value of specific services.* When policy makers want to provide students with after-school programs, reading interventions, exposure to electives, access

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to sports, and other specific services that are believed to be important to student learning, the standard practice is to “resource” these functions. District employees must cover the functions with little relevance to the quality, effectiveness, or even market value of the services. Take, for example, the commitment to exposing students to learning experiences outside the core subjects. In our system, we automatically default to providing that service in the context of the high school day, via elective classes taught by certificated teachers that meet five times a week for 55 minutes. Yet, if we revisit the core purpose of this service (e.g., expose students to non-core subjects such as ceramics and photography), we might find we can meet these objectives in dramatically different ways at much lower costs. The dollar costs in the current model reflect our existing staffing habits and may not reflect the actual market value of the service. An analysis of the real dollar implications of school-provided electives in one district reveals per pupil costs that are 5 or 10 times higher than the market value of those same services (Roza 2008). Imagine for a moment that students could get the same exposure by taking a class at the local community center. While we might not agree on the core purpose for each specific service, the case can still be made that we haven’t tested the market value of many of our school- and district-provided services or used market value in resource allocation structures.

So where should states start? The reality is that our current finance and resource allocation system has grown up amid fragmented and bureaucratic government systems—including federal, state, district, and school structures—which now reflect historical accounting arrangements, union contracts, and the tangle of deep vested interests, rather than structure, and deploy relevant resources toward school improvement. The result is a system fraught with barriers to making necessary changes to better connect resources that matter for students.

For some of the key inputs described above, the barriers in our current resource allocation practices work not only to weaken the connection with real dollars but also to sever it. It has often been argued that little can be done to redirect the organizational momentum inherent in our educational bureaucracies. While some may regard this as a virtue—maintaining stability and predictability—others see this as evidence of immutability (Tyack and Cuban 1995). That said, states have leverage in tackling some of the relevant barriers and in setting the stage for a system in which dollar resources are more effectively connected to critical student resources.

We suggest policy makers tackle current barriers and set up conditions toward reconnecting real dollars to the things that are known to matter. At first blush, this may sound like a proposal for states to get out of the role of making decisions about how dollars are used, thereby taking a stand one way

on the false dilemma proposed above. But, in practice, states have an important role in making dollars more connected to the real resources that matter for students. Part of that role is clearly in removing barriers, but other critical state tasks are needed to stimulate and support such connections. More specifically, the state should:

1. *Revise allocation streams to deploy dollars, not inputs.* The first step is to eliminate allocation systems that rely on deploying purchased inputs, not dollars. Currently, many state allocations and nearly all district allocations work to deploy purchased inputs instead of real dollars. By relying on the limited set of current fiscal inputs and not using currency to structure the allocations, the effect is to inhibit any progress toward establishing more links between dollars and the resources that matter. For example, let's reconsider the idea of staff stability as a valuable resource for schools. By establishing allocations that depend only on the assignment of numbers and types of staff, the allocation system does not differentiate between a school with no turnover and one with chronic turnover. Where the high-turnover school has lower salaries (from continually hiring novices), a staff-resourcing model makes no adjustment for the fact that this high-turnover school lacks the valuable stability resource that is so clearly present in its counterpart with no turnover. Allocating real dollars instead of FTEs does allow for that adjustment, since the high-turnover school would use fewer of its allocated dollars on this year's salaries and could then redirect the savings toward investments that might counter the trends in turnover.
2. *Break down barriers to alternative compensation systems for school employees.* The state should work to remove assumptions inherent in the financial system that teachers, staff, and principals be compensated more on performance-linked criteria than on formal credentials. Instead, teachers should be compensated more as a function of the characteristics linked to student learning. Furthermore, the state should assist in the development, trials, and implementation of these new compensation systems to help encourage their adoption at the local level. This particular recommendation is neither unique to this article nor a solution to this argument. Arguments for changes in teacher compensation abound, and in fact, much work has already been done on this topic. The state does need to understand the imperative for change in this area, particularly in the context of its efforts to modify the finance system in order to make progress toward making significant improvements in student achievement. If dollars were better connected to the real value of the staff, the resource allocation could actually serve as a vehicle to distribute this important resource. Equitable dollar allocations could ultimately result in more equitable distributions of teacher, staff, and principal qualities.

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3. *Develop a more robust model of accountability.* Clearly, leaders in districts and schools will need to think differently about resources and how they connect to the real dollars at hand. This transformation will likely not happen on its own. Part of the state's role here is to enhance accountability systems such that they work to motivate and support schools and districts to operate more efficiently, effectively, and fairly for all students. The inspectorate model in the United Kingdom and other countries as well as adaptations of it in the United States (generally called school review or self-evaluation) is one means of creating a more coherent system that connects accountability, state oversight, and school improvement.
4. *Enhance data systems for more relevant inputs.* Right now, state fiscal data systems focus primarily on tracking only some inputs (purchased FTEs, class size, salary, etc.), but since these dollar figures aren't necessarily tied to the real inputs that matter for students, we don't get the full picture. Rather, states need to develop systems for better understanding and tracking the characteristics and qualities of teachers that do matter. With data systems that link a better range of teacher characteristics to effectiveness with students, schools might know more about what they should look for in hiring. These kinds of data are critically important in developing the kinds of compensation systems described above.
5. *Monitor the distribution of the kinds of resources that matter for students.* While equity is still important, in this new framework, equity means a more equitable distribution of the relevant inputs. States have an important role in making sure that the access to these relevant resources is equitable. So, for instance, where some schools may not have access to the more effective leaders so critically needed (say, a rural school), then the state may need to step in to help build the supply and incentives such that all schools have access to these critical inputs.
6. *Provide seed funding for pilot changes in some locales.* Districts too will have a lot of work to do and may not be able to reinvent the kinds of tools needed to take steps toward monetizing real resources without help. States can fund that hard work, say, to develop and pilot different career ladder compensation structures, in some districts such that others can learn from them.
7. *Open the systems such that market forces can work to set real prices.* The state should take steps toward breaking up the monopoly that now exists in providing services and allow the market to dictate the real value of those services that could otherwise be provided by other parties. Historically, schools have been the primary providers of many state-funded services for students, including access to electives, library services, music instruction, supplemental services, sports, extended day programs, and the like. Linking the costs of these services to their real monetary value means

testing that value in the open market. It may be the case that some school-provided services do indeed provide excellent value for the cost. It also may be the case that non-school providers may be able to rethink the approach to meeting the need and do so at higher value for lower costs. States can work to open up the market for some of these services, thereby relying on the market to respond in ways that provide a concrete link between the value of the services and their cost. Here again, some models do exist that can guide state action. Many parents and a few districts are already relying on outside providers for tutoring, after-school programs, and other services. Charter schools can also present a model of how the system can provide alternatives to what appear to be sole providers of most services.

While the work to change it is difficult, the imperative is paramount. It simply doesn't make sense to continue along a path where dollar resources aren't connected in any meaningful way to the things we're trying to do for students and yet still believe that if we tinker with allocation systems, we'll see progress. It is true that the state likely won't fix the whole problem of establishing a finance system that links dollars to the resources that matter for students. But it is also clear that the question currently on the table about where resource-use decisions rest is a false dilemma that serves as a distraction from the real problems at hand.

Notes

1. We don't suggest that all salaries and benefits are funded by only unrestricted funds. However, most of California's more than 60 categorical programs do have restrictions on how they may be allocated. They are not general purpose funds. One of the major debates currently in the California legislature over how to fix a \$40 billion funding gap is whether restrictions on categorical programs should be eliminated.

2. The data are based on all of California's 987 school districts. The funding formulas for elementary, secondary, and unified districts are the same.

3. Higher average salaries in some schools quantify in fiscal terms the well-documented problem of higher teacher turnover in some schools, while others have more stable, seasoned teaching forces.

4. California's Class Size Reduction Program, for instance, was specifically aimed at "keeping the money off the bargaining table."

5. See, for instance, the research on high-poverty, high-performing schools (e.g., Perez and Socias 2007; Williams et al. 2005).

6. We don't mean by this that acquiring a strong or highly competent principal does not require some effort or resources by someone. The point here is that two identical school expenditure schemes can produce very different outcomes in terms of instructional quality.

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