

Getting Down to Facts: School Finance and Governance in California

Summary

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Getting Down to Facts

A research project designed to provide California's policy-makers and other education stakeholders with comprehensive information about the state's school finance and governance systems, and lay the groundwork for a serious and substantive conversation about needed reforms. The project was made possible by grants from the Bill & Melinda Gates Foundation, the William and Flora Hewlett Foundation, the James Irvine Foundation, and the Stuart Foundation.

This summary was prepared by IREPP and approved by the authors.

For the full text of the author's report and the other studies in this project, go to <http://irepp.stanford.edu/projects/csfg.html>.

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"Getting Down to Facts" is the largest independent investigation ever of how California governs and funds public education. It was commissioned at the request of a bipartisan group of California leaders, including the Governor's Advisory Committee on Educational Excellence, the President *Pro Tem* of the California Senate, the Speaker of the California Assembly, the Superintendent of Public Instruction, and the state Secretary of Education.

The purpose of this unprecedented project is to describe California's school finance and governance systems, identify aspects of those systems that hinder the effective use of resources, and estimate costs of achieving a range of student outcome goals. The project is not designed to advance specific policy recommendations, but rather aims to provide a common factual ground to promote informed conversation among policymakers and the public as they consider necessary reforms.

Coordinated by Stanford University's Institute for Research on Education Policy and Practice, the project was independently financed by the Bill & Melinda Gates Foundation, the William and Flora Hewlett Foundation, the James Irvine Foundation and the Stuart Foundation. The resulting 23 reports represent 18 months of research completed in early 2007 by scholars at universities and research institutions across the nation.

The research carefully documents what many educators report anecdotally: While good things are happening in many districts, schools and classrooms, California's school finance and governance systems are fundamentally flawed

and fail to help students meet state performance goals, especially students from low-income families. While meaningful reform will likely require added investment, it is also clear that absent reform, directing more money into the *current* system is unlikely to result in the dramatic improvements in student achievement needed to reach state goals. Our research indicates that what matters most are the ways in which current and new resources are used. To this end, the *Getting Down to Facts* reports provide a framework for assessing our reform options going forward.

The Problem: California lags significantly behind other states in student achievement

Despite the development of challenging education standards and sustained attention to school improvement over the past decade, California continues to lag behind other states on several different measures of student achievement. The problem is serious. For example, on the 2005 National Assessment of Education Progress, California ranked 7th lowest in eighth grade math among the 50 states

“These studies need to be taken very seriously by everyone in the education debate. This is just a starting point for what I hope will be a renewed focus in the Legislature on increasing student achievement with needed reform.”

—Governor Schwarzenegger, March 14, 2007

and the District of Columbia. The story is at least as bad in other subjects. California performed 3rd lowest in reading, ahead of only Hawaii and the District of Columbia, and 2nd lowest in science, ahead of only Mississippi. Some suggest that California's position simply reflects the large minority populations in the state, but the facts belie this. California schools do not do well for any sub-group, including non-Hispanic white students. Significant progress will require fundamental and comprehensive change.

The low achievement of California's students will almost certainly hurt their economic outcomes later in life and is likely to be detrimental for the state as a whole. There is mounting evidence that educational quality measured by test scores is directly related to individual earnings, worker productivity and economic growth. In a global knowledge economy, the economic growth of regions and nations is affected by the skills of workers, which in turn are directly related to student learning outcomes.

The Research Questions

The hypothesis underlying "Getting Down to Facts" is that improving California's school finance and governance structures will enable schools to be more effective and to address an achievement gap that remains significantly wide. In light of that assumption, researchers sought to answer three questions:

- What do the school finance and governance systems look like in California?
- How can dollars be used more effectively to meet student outcome goals?
- To what extent are additional resources necessary to meet state goals?

Answers to these questions can serve as the basis for assessing proposals to

replace policies that don't work and to maintain or expand those that do.

What do California's school finance and governance systems look like today?

School governance in California is characterized by a hodgepodge of restrictive rules and regulations that often hinder, rather than promote, student achievement.

Any informed discussion of school finance requires an understanding of the governance system in which it operates and an assessment of any obstacles to reform imposed by that system. Researchers identify a number of key characteristics that should frame consideration of any system: transparency; simplicity; innovation, flexibility and responsiveness; accountability; and stability. *Getting Down to Facts'* conclusions about the California system of governance stem from this framework.

Excessive regulation. California places substantial restrictions on schools' and districts' use of resources. These restrictions impose heavy compliance costs and make it difficult for local actors to respond to incentives in the accountability system. Regulatory requirements in an Education Code with 500 chapters and more than 1,250 articles, stifle local innovation (such as extending the school day, providing for teacher collaborative time or improving reading instruction). They also impose needless obstacles on local school administrators causing them to focus on compliance, and its attendant paperwork, rather than on meeting teaching and learning goals. At the same time, surveys of superintendents and principals reveal that constant change of state-level policy hinders planning and frustrates school and district staff.

Governance and accountability systems are often at cross-purposes. In a well-designed accountability system, all players understand their roles and

have the resources, incentives and authority to accomplish their obligations. However, California does not have such a system and, as a result, local responses are not as intended. The current system of parallel public reporting of school performance under the federal No Child Left Behind Act (with its associated adequate yearly progress requirements) versus school performance under state law (with goals under its academic performance index, or API) sends mixed signals to parents and educators.

Perhaps even more important than this confusing lack of alignment, however, are the substantial constraints on resource use that local personnel face in trying to respond to the challenges they encounter. While other states with strong accountability systems have reduced regulations to enable local improvement initiatives, (Florida and Connecticut, for examples), California has not. Instead of encouraging flexibility and innovation at the local level, many of California's state policies constrain local actors – forcing very similar policies regardless of either local needs or capacities. Ultimately, accountability and responsibility are not well aligned because schools and districts are held accountable for student learning but they are not given responsibility and authority to allocate resources.

Low priority given to administrative capacity. Despite the increasing complexity of local administrative roles, especially the modern principalship, the state places little emphasis on administrative capacity. Though the empirical evidence on the effects that principals have on student learning is not as extensive as it is for teachers, it seems clear nonetheless that principals play a key role in the effective leadership of instructional improvement at the school-site. Principals in California are less likely than principals in other states to have participated in an administrative internship, to have access to mentoring

or coaching in their work or to a principal's network while on the job, and to have participated regularly with teachers in professional development. Moreover, California has more students per school administrator and fewer district administrators per school administrator than the rest of the country. The regulatory environment discussed above imposes a heavy compliance burden on school administrators. With these responsibilities and limited numbers of school administrators, it is not surprising that principals in California report that they spend substantially less time overseeing instruction at their schools than do principals in other states. There is no reason to believe, however, that simply expanding staff by itself will lead to significant improvements in student outcomes.

California's school finance system is unnecessarily complex and is not rationally aligned to support the accountability and performance standards imposed on local educators.

The school finance system determines not only the dollars that flow to districts, schools and classrooms but also in many cases how these dollars may be used. As with governance, there is no consensus on the one best way to fund a public school system. In assessing California's state system of finance, the *Getting Down to Facts* studies considered a variety of indicators: equity, sufficiency of dollars, clarity and simplicity, administrative requirements, the extent to which the system facilitates or hinders the effective use of resources for meeting goals, and the stability of funding sources.

Highly centralized. In California, district spending levels are set, with only minor exception, at the state level and a higher proportion of funds come from state revenues than in most other states. This state control is, at least in large part, a result of Proposition 13 which limits the local property tax;

“The System is simply a barnacle of the past. Almost no one, save a few highly paid experts, understands it.”

—Mike Kirst, Stanford University, former member California State Board of Education

leaving districts with little ability to raise additional funds for school operations. Perhaps as a result of the state playing such a central role in finance, the state has also taken control of other aspects of school policy, requiring districts to spend their revenue in specific ways. In fact, California prescribes at the state level more of *how* dollars should be spent than do other states. There is some research evidence that districts use state-prescribed aid less effectively for the purpose of improving student outcomes than general purpose aid. These findings suggest that, in California, districts can allocate resources more effectively when given flexibility than when the allocation is determined solely by the state.

A complex and irrational finance system. The number of dollars available to each school district is largely an historical artifact of spending in the 1970s combined with confusing categorical grant programs. As a result, similar districts can receive substantially different revenues per pupil, and differences in student needs across districts are not systematically accounted for in determining revenue levels. In addition, the finance system is extraordinarily complex and imposes substantial and costly compliance burdens on school districts. Pre-dating the implementation of modern accountability systems, the current finance structure has never been updated to align with the states accountability system, nor redesigned to help local officials meet student performance goals. By contrast, a number of states including Texas have implemented reforms in which the dollars going to districts are much more closely tied to needs, costs, and

local preferences.

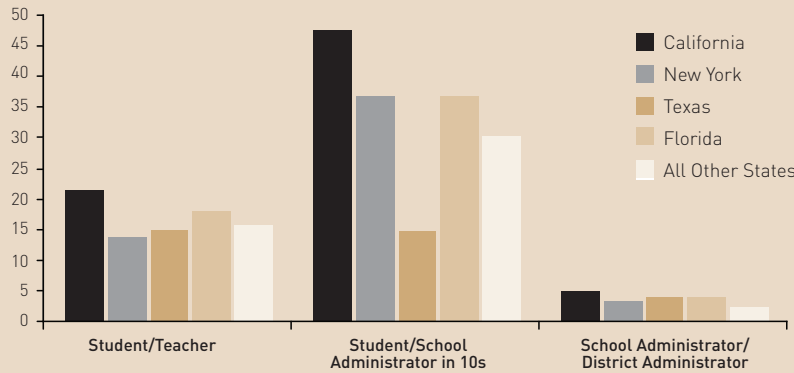
Inequitable by any measure. Differences in spending across California districts are substantial and not systematically tied to costs, needs or demands. Despite a court-ordered school finance equalization plan, there remains a wide variation in spending across California school districts. The difference in total expenditures, excluding capital outlays, in a district at the 25th percentile of spending and a district at the 75th percentile of student-weighted spending is more than \$1,000 per student. The system could still be considered equitable if spending patterns effectively accounted for differences in local needs. In fact, however, district poverty level, racial and ethnic makeup, urban status and district grade span explain only a small portion of the variation in spending.

Unstable revenue from year-to-year. The source of school funding is unstable both in terms of revenue fluctuations and the lateness of the budgeting process. Stock price volatility and the state's relatively progressive personal income tax have created years of boom and bust for California schools. The importance of stability is evidenced in the principal and superintendents surveys. More than three-quarters of superintendents responded that knowing the budget earlier would be a great deal of help or essential to improving outcomes for students.

California spending is below the national average.

Even factoring recent substantial increases, California lags behind a majority of other states in education spending. For example, California gen-

Figure 1 • Staffing Ratios in California and Other States Common Core of Data 2003-04 school district demographic data



erates approximately the same revenues per pupil as Texas and Florida, approximately \$5,500 less than New York, and approximately \$630 less than the average of the remaining states. Moreover, California's costs are higher than those in most other places, due primarily to the higher wages of college-educated labor. After adjusting for salary differences across states, Texas spends approximately 12 percent more than California; Florida, approximately 18 percent more; New York, approximately 75 percent more, and the rest of the country, approximately 30 percent more, on average. The lower spending in California is reflected also in high student-to-staff ratios, including fewer teachers and administrators per pupil. (See Figure 1.)

California does not have a coherent system for supporting the entry, development, and retention of quality teachers and administrators. Weak state policies on teacher and principal recruitment and professional development. Teachers are central to improving student outcomes. Unfortunately, California's teacher policies are not currently coordinated and designed to optimize the teacher workforce. As an example, generic requirements such as units of professional development credits or unspecific mas-

ters' degrees demonstrate no measurable benefits for students. There seems to be little reason to keep these requirements or to peg salary enhancements to them, as is currently the case in most districts. In contrast, field-based experiments have demonstrated that targeted professional development, aligned to standards, and implemented well can affect improvements in teaching and learning. Along these lines, recent policies in California have aimed to make professional development more relevant to the work of teaching. However, it is difficult to tell whether these new policies, such as those supporting school-based coaches or mentors, are delivering the desired outcomes. This is one of many instances in which a promising initiative has been scaled very rapidly without concern for whether schools have the capacity to sustain such development with quality and with no plan to learn from the program so that the overall productivity of state policy might be enhanced. Simply, the state has no means by which to tell whether the program is working and thus no way to know how to adjust the program so that it can best achieve its goals.

Likewise, state policies for teacher certification and licensure for entry deserve careful reevaluation. There is ample evidence that the nature of

teacher preparation requirements affects the pool of available teachers. Whether or how changing these requirements will translate to improved student outcomes is less clear. In light of this, and the clear effect of certification requirements on the pool of teachers, it is an area worthy of experimentation.

The story is similar with professional development for principals. California principals report being less engaged in evaluating and supporting teachers, in working with teachers to improve their practices, in helping to develop curriculum plans, in fostering teacher professional development, and in using data to monitor and improve instruction than do principals in other states. Given the importance of school-based leadership to student outcomes, and the sparse evidence on how to enhance it effectively, this area is ripe for innovation coupled with careful assessments of effects.

Due-process rules and the inability to dismiss ineffective teachers. The one factor that emerged most consistently across studies as inhibiting local leadership was the difficulty in dismissing ineffective teachers. Both the principals and superintendents surveyed ranked this factor as the most important change that could help them improve student outcomes. Increasing principals' authority in this area does not necessitate removing due-process rights for teachers. One potentially productive alternative, for example, would be to create a fair and accurate system of evaluation for teachers that can be used to optimize professional development and job assignment as well as to provide the basis for an effective due-process system. In addition, though principals cite the difficulty of dismissing teachers as a barrier to instructional improvement, it is also important to note that they indicate that they would seek to remove only a small number of teachers—two or less in most schools—if they had the authority to do so. These comments reflect a concern that just a few ineffective teachers can

undermine reform efforts at a school. Along similar lines, teachers are more likely to engage actively in reform when principals have real authority to act, even if principals rarely use that authority.

Problems with current salary schedules. Teacher salary scales also do not support a highly effective teacher workforce. Within most districts teachers with the same years of experience and education receive the same base pay. First, this schedule fails to recognize any differences in the effectiveness of teachers. Second, it fails to recognize differences in the difficulties of some teaching assignments versus others. All other things equal, many teachers prefer schools with higher scoring and presumably easier to teach students. Thus schools with a high proportion of students in poverty are often left with less experienced teachers and teachers with less strong academic preparation – and salaries do not serve as a counterbalance to these forces. Third, salary schedules that pay teachers the same across fields also result in much greater difficulty staffing some jobs than others. In particular, there tend to be shortages in fields with greater outside occupational opportunities such as science, in fields that require greater training such as second language learning, and in those that have particularly specialized work requirements, such as special education.

California is incapable of effective system learning and continuous improvement, both because it lags other states in the development of a longitudinal student and teacher data system and because it has not developed sufficient analytical capacity.

It is almost impossible to think of systemic performance improvement in California without dramatic changes in the state’s approach to information development, use and dissemination. California’s current system is characterized by many unconnected data collections within the Department of Education as well as important data,

particularly concerning teachers, that is collected by agencies other than the Department and are difficult to link. Most importantly, California’s current system does not follow students and teachers over time and does not link them together and to the programs and resources that they experience so that we can evaluate effectiveness. Several other states have assembled such systems to record policies and follow the performance of individual students from pre-K through college and even beyond into the labor force. From these systems, policymakers and school administrators can track how students are progressing, how different teachers and programs are affecting this performance, and the effectiveness of different uses of resources. With carefully linked data on students and teachers, state education leaders would be able to assess the efficacy of different intervention programs for improving failing schools. Simply knowing the actual dropout rate, for example, could enhance parental involvement in district governance and provide better information upon which parents might base schooling decisions for their children. California currently lacks the capacity to take any of these steps.

In addition to strengthening data collection and information management, state programs and policies need to be implemented in ways that allow for systematic evaluation. Teachers and principals need access to networks through which they can learn about effective policies and implementation challenges. And actors at all levels of the system need the flexibility to innovate, learn from experience and improve their practice.

How can dollars be used more effectively to meet outcome goals for students?

Approaching a more effective system of public school governance and finance.

There is no silver bullet for school

reform, no one policy change that will forever assure an optimal school system. Instead, *Getting Down to Facts* points to policy areas that are worth pursuing because the evidence suggests that changes in these areas could produce benefits for students. Among these areas are:

- relaxation of state regulations and restrictions on categorical funds to allow greater local flexibility for resource allocation, including the flexibility to make more effective use of instructional time and possible expansion of that time especially in schools with high concentration of disadvantaged students;
- simplification and rationalization of school finance formulas to promote better strategic planning for the best use of resources by local school officials;
- efforts to support the recruitment and development of effective teachers and educational leaders through new approaches to pre-service education, in-service professional development, due-process, evaluation, tenure processes, and compensation; and
- experimentation with alternative training, induction, development, and evaluation of educational leaders.

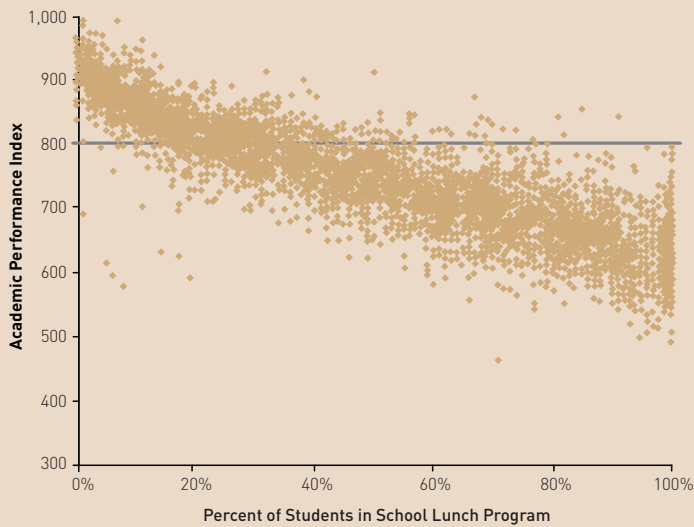
Other policy areas are worth exploring because of their evident importance. This would include among others:

- enhanced curriculum and instruction for improving reading comprehension
- improved instruction of English language learners, and
- effective approaches for helping continuously failing schools.

Building an information-driven system, focused on developing and disseminating knowledge about effective practices, is the fulcrum for continuous improvement at all levels.

The evidence base about how best to act in the areas identified in the forgoing sections is often thin, and the issues are complicated. In this context, it is important that

Figure 2 • Percent of Students Participating in Subsidized School Lunch Program and API, K-5 and K-6 Schools, 2004



whatever California does be undertaken in a way that we can rapidly and systematically learn what works, what doesn't, and why. Too many times in the past, we have pursued initiatives that appeared promising only to be deeply disappointed by the ultimate results. For example, the 1997 class size reduction program is currently funded at \$2 billion per year, yet there is scant evidence that it has been effective in improving student outcomes. It continues in part because we have not developed appropriate systems to analyze its effectiveness and to make decisions based upon evidence as opposed to hunch.

Producing dramatic improvement in student outcomes will require innovation and the creation of an information infrastructure that will support continuous improvement. This would require:

- better data on student performance, linked to teachers, schools and districts to facilitate better policy and program choices,
- policies and programs implemented in a manner that allows for rigorous assessment of effects on students,
- infrastructure at the state-level for information collection, evaluation, and knowledge dissemination,

- independent evaluation of programs and policies based on state data and other data sources,
- support for the creation of networks of schools or districts, or networks of school leaders to allow for sharing of information on effective practices, and
- local capacity building to promote data-driven knowledge generation and use by school principals and teachers inform instruction and practice.

Plans to expand and improve California's data systems are underway but these need to be deepened and accelerated. When better data are combined with purposeful policy implementation so that the effects of policies can be carefully evaluated, our understanding of policy impacts can improve quickly.

To what extent are additional resources necessary to meet our goals?

Determining how much and under what circumstances schools need additional resources is a complex task.

Estimating, with any degree of certainty, the resources districts need to meet state goals not an easy task.

First, often the academic goals set by the state for students are substantially higher than current student outcomes. As Figure 2 illustrates, few high poverty schools reach the state's 800 API goal. In such a situation, there may be very little information available about how to achieve such goals and thus the dollars or resources needed for success. If we do not know how to achieve a given level of student performance, we cannot estimate the cost of attaining that goal.

Second, districts and schools differ in their capacities to transform resources into achievement - say, because of differing leadership skills or ability to use of information effectively. Thus, it is difficult to ascertain what resources are actually necessary for any given outcome.

A third difficulty in determining the amount of funding necessary to achieve a given outcome stems from substantial differences in needs across districts. These differences come from variation in the student population served as well as variation in local labor markets for teachers and administrators.

A fourth factor confounding estimates of resource needs is that estimates are only applicable to the existing governance and finance arrangements. As such, the dollars necessary to reach a given outcome goal under current institutional arrangements may be quite different from what would be needed under other conditions.

Finally, any estimate of resource needs depends on the state of our current knowledge about effective schooling. Innovations in curriculum or instruction, for example, may reduce the cost of achieving a given goal and, in some cases, investments in research and development may be a better use of funds for improving outcomes than additional dollars for current instruction.

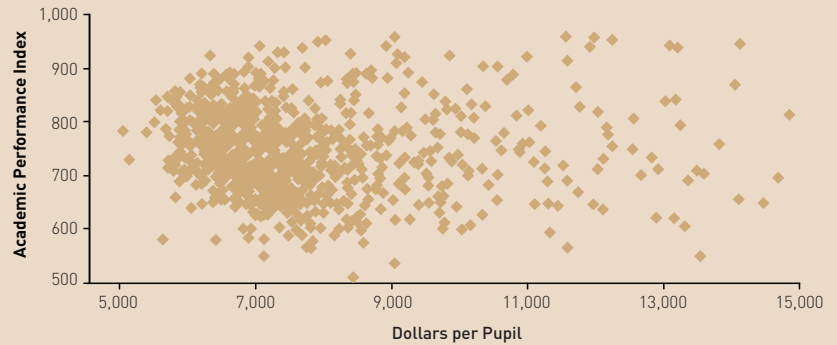
Notwithstanding these analytic difficulties in estimating the resource needs associated with achieving a

given outcome goal for students, it is useful to consider the results of various approaches that are designed to investigate how increases in school resources might affect student outcomes. Our investigations included the perspectives of each of the commonly employed methods that have been developed to study school finances in other states plus extensions of those.¹

The data available on spending and achievement in California schools is not sufficient for assessing the effects of dollars on student outcomes. The relationship between dollars and student achievement in California is so uncertain that it cannot be used to gauge the potential effect of resources on student outcomes. Figure 3 illustrates this point. It plots district API scores as a function of per pupil spending in 2004-2005, and finds essentially no relationship between the two. There are a number of possible reasons for this lack of relationship. One is that the data are too poor to find a relationship even if one does exist. For example, there are likely to be differences in learning across schools and districts that the simple API measure does not capture. Alternatively, because of the inefficiencies in the governance system, there may, in fact, be little relationship between dollars and student outcomes. If this were the case, more money in the current system without significant reforms would be unlikely to result in students meeting challenging state standards. Finally, differences across districts in factors such as the concentration of poverty might mask any effects of resources but existing data do not permit separating this out.

An examination of “Beating the Odds Schools” supports the conclusion that dollars alone do not explain learning differences across districts. One study investigated schools that were beating the odds insofar as they significantly outperformed expected student performance results for at least

Figure 3 • District API and Spending per Pupil 2004–2005 Data from Imazeki (2007)



three consecutive years. The study showed clearly that schools with similar resources have very different student outcomes. If additional dollars were inserted in the current system there is no reason to expect substantial increases in student outcomes related to state goals.

Professional judgment models provide suggestive, but not conclusive, insights as to the cost of improvement. Another quite different way to probe the resources needs of schools is to ask professional educators directly. Because they are in schools and understand school decision-making processes, they often have informed ideas about what factors most help or hinder student achievement. When asked how they would allocate resources to improve student outcomes, superintendents, principals and teachers are generally optimistic that additional dollars if allocated in specific ways can improve student outcomes. But even these professionals note that the relationship is not strong. For example, on average across respondents, an elementary school of all poor students with a school-level budget of \$4000 per-pupil (on top of additional set resources allocated by the district) is estimated to produce an API of approximately 698. An increase in the school’s budget by \$1,000 per pupil increases this prediction only by 13 API points. These esti-

mates are not far from the estimates of the effects of resources found in rigorous studies of resources such as class size reduction in other states.

Sonstelie (2007) provides an illustrative estimate of the dollars needed for each school in the state to achieve an 800 API, but this requires extrapolating well beyond extant data and his survey results because currently few high poverty schools produce API scores above 800. When he limits the school budgets to those those situations presented to his professional judgment panel, his respondents suggested an estimated a 40 percent increase from the total expenditure of the same districts would still leave 50 percent of elementary schools with APIs less than 800. Five percent of elementary schools would have predicted scores of less than 736. The estimates from a parallel and more traditional professional judgment study conducted as part of the project are similar to those of Sonstelie. In other words, even California teachers and administrators, who might be expected to be quite optimistic about the role of resources, estimate that adding resources alone within the current structure of schools has only a small positive effect on student outcomes. For schools in high poverty communities to reach California’s high student

achievement goals likely requires new approaches and a system that supports continuous improvement.

Any transition to a new system will initially require additional resources.

Removing and replacing the dysfunctional elements of the current finance and governance system requires substantial changes in programs, personnel development, and management structures. Getting from here to there cannot be done effortlessly. The necessity for strong political leadership by the governor and the legislature is obvious. But, it will undoubtedly also require dedicated funds to pay for the introductory phases of new systems and operations and for the withdrawal from other programs. Even if the new system requires no more resources than currently being spent, the transition would require temporary transitional spending. This funding is logically distinct from longer run decisions about the level resources employed to operate California's schools.

Conclusions

If our set of studies has one overarching conclusion, it is simply this — California's school finance and governance system are fundamentally flawed. Consequently, California students perform far lower on tests of achievement than do students in other states. Within the state, schools with high proportions of students in poverty are consistently failing to meet the standards the state sets out for them.


No one program or intervention will fix the system. California has tried over and over the approach of introducing separate programs and disjointed new policies. Although each may have been well intended, the aggregate mass is now a large part of the problem that needs attention.

Instead California would benefit from a policy environment that recognizes the complexity of the task and the limited state of our knowledge. It would focus on reforms that improve the ability of decision makers at all levels to make good decisions for students and to improve outcomes. Such a system would improve the alignment between the accountability system and the decision-making responsibilities, increasing flexibility at the local level. It would improve information collection, both at the state level where data should follow students over time and link them with the resources they receive and at the local level where networks of teachers and administrators could learn from each other's experiences. It would refine policies to attract and retain high quality teachers and administrators, and place a priority on learning from the effects of the policies it implements. It would simplify its school finance formulas so that similar districts would be treated similarly and differences across districts would be treated reasonably and consistently. It would also target resources to improve the outcomes of students in poverty, most of whom are unable to reach state goals in the current system. And for all school districts, it would make the state budgeting process more predictable, removing the peaks and valleys in annual appropriations, and establishing distributional decisions earlier in the spring so that school and district leaders could be more strategic in determining how best to use their resources for the next academic year.

Finally, we cannot emphasize enough that asking the question, "how much money will it cost to achieve State goals for students?" is meaningless without also asking "how can we develop a system that makes better use

of whatever resources are available?" California is so far from achieving its student outcome goals that marginal policy changes are unlikely to produce the desired outcomes. Instead such progress requires a new approach to reform, an approach that allows state, district and school decision-makers to improve their practice and thereby to enhance the opportunities afforded California's students.

The message of the entire collection of studies is that fundamental changes will be needed if California is to provide a high quality school system. Some changes are easier than others. Some changes are more appealing than others in that they entail less fundamental challenges. But picking a small subset and ignoring the others most likely will have few benefits.

California's economy is dependent upon the strength of its workers. If California students are going to participate fully in its future development, they will need quality schools that are competitive with those in other states and other nations. Without better schools, the future vitality of California will depend on its ability to attract workers from elsewhere. A failure to act now, abrogates our public responsibilities. Ultimately, we fail our children, our families and the future of our state. 

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ⁱ The common nomenclature for the approaches and their associated GDTF studies are: cost function (Imazeki 2007); successful schools or beating the odds schools (Perez et al. 2007); professional judgment approach (Chambers, Levin, and DeLancey 2007; Sonstelie 2007).