California's public school system lacks the capacity to deliver on today's higher standards and expectations for all its students. Educators and policymakers believe that greater capacity will require additional funding. The more complex question, however, is, "How much funding would be adequate for California public schools?" This report describes the school-finance controversies in California that limit the state's answers to some degree. Within the context of the currently highly complex, state-controlled California school-finance system, both the level of funding and the allocation process are controversial and frustrating for educators. Some key issues energize the discussion; for example, with per-pupil expenditures well below the national average and the high cost of living, California's public schools have had less money to work with than the majority of their counterparts, particularly in the nation's other industrial states. The assumption that the level of school funding and how funds are used, should, in some way, be linked to expectations for student and school-system performance is central to the concept of funding adequacy. Accordingly, determining how much funding is enough requires moving from a formula based on what is available to one that requires some consensus about what outcomes are desired from the system and agreement about the best way to get them. A two-page executive summary is appended. (DFR)
How Much is Enough?
Funding California's Public Schools

Expectations are rising for both California public schools and their students. In response, many educators and a growing number of other Californians are questioning whether the state’s schools—as they are currently staffed and operated—have the capacity to deliver what is expected. And if they do not, to what extent is it because they are not adequately funded?

Indeed, various analyses, anecdotes from local schools, data comparisons with other states, and a growing political sentiment indicate that California’s public schools are underfunded for the task at hand.

In California today, there is growing awareness that the call for higher standards has fiscal implications. Elsewhere in the United States that convergence is leading to a fundamental shift in the way courts, researchers, state policy makers, and educators are conceptualizing school finance. There is a growing emphasis on the idea of funding adequacy—that is, determining the level of resources schools should receive based on a definition of the educational goals of the system.

The adequacy approach attempts to answer two questions: How much money would be enough and where would it best be spent? This inquiry swiftly raises multiple issues:

- What is needed to give students equal access to educational opportunity?
- What level of achievement is expected from students?
- What are accurate and fair measures of what students and schools are accomplishing?
- What are the most important components for an effective education system?

How do local differences affect the way resources should be used?

How can the state responsibility for student achievement be balanced with the need for local flexibility to respond to differing circumstances?

What can be done to make the system more efficient and more effective?

This report provides a framework in which Californians can explore these issues as they relate to school funding. Armed with a better understanding of the many factors that must be considered, perhaps the state as a whole can arrive at a well thought-out answer to the question, “How much is enough?”

The school finance system has evolved over the past three decades

Historically in the United States, local property taxes were the major source of funding for public schools, and the tax rate was locally determined. This often led to dramatic differences in school funding, usually depending on the relative property wealth of the surrounding community.

Equal funding was meant to equalize students’ opportunities

In the last 30 years, this property tax–based approach to school funding has gradually given way, usually by court order, to systems that attempt to create greater funding equity among school districts. The underlying assumption is that a clear relationship exists between how much money schools receive and how well their students are educated.

This rationale is summarized in The Future of Children: Financing Schools, a 1997 publication by the David and Lucile Packard Foundation. “Schooling matters. Decades of research confirm that both the quality and the quantity of schooling are strongly associated with increased
income, better health, lower levels of criminal activity, and less reliance on public assistance.

The justification for public financial support of schooling is both civic and personal. Schools are expected to prepare children for the responsibilities of citizenship and to improve their individual economic prospects and quality of life.

During the 1970s and 1980s, many state courts found great disparities in base per pupil spending between high and low property-wealth districts. They mandated that these funding disparities be eradicated. In placing districts on a level fiscal playing field, the courts often invoked equal protection clauses in state constitutions to establish that state governments have an obligation to equalize students' access to educational opportunities and thus life chances.

The courts, voters, and legislators have shaped California's funding system

Begun in 1968, the Serrano v. Priest court decision in California (see box) was one of the earliest of these legal suits. The tenets of that decision began reshaping the school funding structure in California in the early 1970s. In the years following, many related state laws and constitutional amendments were passed. They included:

❖ Proposition 13: Passed by voters in 1978, this constitutional amendment resulted in a dramatic reduction in the amount of local property tax revenue available for cities, counties, other special districts, and especially for schools.

❖ Proposition 98: This 1988 voter-approved initiative guaranteed K-14 schools (kindergarten through community college) a minimum level of funding depending on the state's tax revenues.

More recently, a plethora of new categorical programs have been created. In some cases, these programs have addressed differential student needs. But most recently they have also been a way for state policy makers to pressure school districts into certain types of expenditures state replaced the lost property taxes and effectively took control of school funding.

❖ AB 8: This legislation implemented Proposition 13 and shielded schools from some of the measure's effects. In the process the

Figure 1

Funding for California's Public Schools Comes from Several Sources

<table>
<thead>
<tr>
<th>Sources</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Categorical</td>
<td></td>
</tr>
<tr>
<td>General Purpose (Revenue Limit)</td>
<td></td>
</tr>
<tr>
<td>Property Tax</td>
<td></td>
</tr>
<tr>
<td>Local Misc.</td>
<td></td>
</tr>
<tr>
<td>Lottery</td>
<td></td>
</tr>
</tbody>
</table>

In this diagram, the column on the left shows the five sources of money for schools in California. The column on the right shows how the different sources feed into school district budgets. The categorical portion is earmarked by either the state or federal government for specific purposes or categories of students.

State funds and property taxes are the funds included in the Proposition 98 guarantee and make up more than 80% of total education funding in California.

For 1999-2000, the total estimated revenues for K-12 education were $44.2 billion from these sources:

❖ Federal government $4.2 billion
❖ State funds $26.1 billion
❖ Local property taxes $10.1 billion
❖ Local miscellaneous revenues $3.1 billion
❖ Lottery $0.7 billion

These funds were provided to educate a projected 5.6 million (ADA) California public school students. ADA is Average Daily Attendance.
The Serrano decision left its legacy in California

Begun in 1968, the Serrano v. Priest court case was one of the first lawsuits to challenge the U.S. tradition of locally funding public schools. The plaintiffs charged that California's school finance system, based on local property taxes, was unconstitutional. When the case was settled in the mid-1970s, the courts required the California Legislature to find a way to finance schools that would be more equitable for both taxpayers and students. The charge to state leaders, based on equal protection under the law, was to reduce property wealth-related disparities to $100 per student.

The focus was on general purpose money

The focus of both the Serrano decision and the resulting school funding system developed by the Legislature was the equalization of base, or foundation, funding for schools. Often called general purpose money, this is allocated on a per pupil basis to provide for the day-to-day operation of the school district.

The Legislature created a system of "revenue limits" for moving the base revenues for each type of district—elementary, unified (K–12), and high school—to within a $100 spread commonly called the Serrano band. To achieve equalization, the Legislature granted higher increases to the low-spending districts and held down the increases to high-spending ones from 1979 to 1983. The court accepted this system, and a later court ruling allowed the adjustment of the band for inflation. In 1999–2000 it is estimated at $343 per student.

The courts required that the vast majority of the state's students be served in districts whose general-purpose revenues fell within the Serrano bands. By 1983, the percentage of students had reached 98% overall and the Serrano case was officially closed.

Equity did not mean equal revenues

However, the Serrano decision did not call for equalization of all funding for schools. Some differences in funding were purposely allowed.

In its approach to equalizing base funding for school districts, the state used a mechanism called the revenue limit. The revenue limit is the amount of general purpose money each district may receive from a combination of state taxes and local property taxes. Revenue limits were calculated for each district based on historical spending patterns and originally varied considerably. The court accepted different revenue limits for large and small elementary, high school, and unified districts, effectively creating six separate Serrano bands. The guiding principle was that high school programs were costing more to operate and thus needed a higher level of funding per pupil. This was again based on historical expenditures rather than an analysis of actual program needs.

As Figure 3 on page 6 illustrates, high school districts today have the highest revenue limits on average, elementary districts the lowest, and unified districts receive an amount in between. The state also provides additional funds for the smallest school districts. This is based on the premise that school districts with a very small number of students cannot take advantage of the economies of scale their larger counterparts enjoy. As is clear from the chart, a number of funding anomalies still exist within the current revenue limit system, though it has been accepted by the courts.

The Serrano decision also specifically excluded categorical programs from the equalization formulas. These are programs for which funds are earmarked, often in order to provide additional services to particular groups of students. Special Education for disabled students is an example.

At the time, categorical programs were primarily used to help districts meet special needs either based on student characteristics or special district circumstances. The widespread use of categoricals for state- and federally-inspired instructional programs is a more recent phenomenon. Today, California has more than 80 categorical programs, and about one-third of education revenues are earmarked for specific purposes.

The effect on low-income communities has varied

In looking at the problems with a property tax-based school finance system, courts considered both property values and property tax rates. In high property-wealth districts, lower tax rates yielded above-average revenues for educational expenditures. Conversely, low property-wealth districts—even with higher tax rates—could not raise as much money for their public schools.

It is important to note that high property wealth does not necessarily equate to high personal wealth on the part of a school district's families or residents. Areas with substantial business or industrial property and thus substantial tax revenues, for example, may serve extremely needy children. Thus, the Serrano v. Priest decision has not uniformly resulted in increased financial support for schools with students who live in poverty.

In a February 2000 report entitled For Better or For Worse? School Finance Reform in California, the Public Policy Institute of California provides evidence that disadvantaged students as a whole have not benefited from the Serrano decision. "The Serrano plaintiffs correctly noted large disparities across school districts in per pupil spending. They erred, however, in presuming that these disparities were systematically related to race and income. Although many low-income and minority families lived in low-spending districts, just as many lived in high-spending ones. Thus, reducing inequality at the district level did not help disadvantaged students as a whole."
and programs. These have ranged from longer school days to smaller class sizes to specific professional development programs.

Together, these laws and regulations have evolved into an extremely complex state-controlled school finance system. But while California's current system in its entirety has few friends, each particular funding mechanism and provision has advocates who work hard to protect their particular interests. Those competing special interests make the prospects of revamping the system daunting for politicians and educators alike.

The school finance debate in California focuses on the amount, distribution, and effectiveness of funding

Within the context of California's highly complex school finance system, both the level of funding and the allocation process raise controversy and frustration. The key issues include:

- The level of overall funding, particularly based on national comparisons.
- The differences in the revenues school districts receive.
- The uneven distribution of educational resources, such as quality teachers, across California's more than 8,000 public schools.
- The efficiency and effectiveness of current expenditures, including the extent to which spending decisions should be made at the state versus the district level.

Most other states spend more per student than California

General purpose funding within California appears to be more equitable than it was prior to the Serrano decision. However, in the process of equalizing funding within the state, California has actually made itself less equal to other states, according to a research report, For Better or For Worse? School Finance Reform In California. The report was published by the Public Policy Institute of California (PPIC), an objective, nonpartisan research foundation.

"In the aftermath of Proposition 13," the February 2000 publication said, "the state distributed revenue more equitably across school districts, but it did so more by leveling down high-spending districts than by raising low-spending ones....Between 1970 and 1997, spending per pupil in California fell more than 15 percent relative to spending in the rest of the country."

Various comparisons between California and other states are available, and most use the "per pupil expenditure" figure as the yardstick for comparison. This number reflects the money school districts spent, not the money they received. Therefore it varies somewhat from the revenue amounts previously mentioned in Figure 1 (on page 2). It nonetheless provides an important and often referenced measure that shows that California's public schools have had less money to work with than the majority of their counterparts, particularly in the nation's other large, urban industrial states.

Figure 2 illustrates the great differences in per pupil spending that exist between California and
the other industrial states. The average per pupil expenditure in New Jersey, for example, was almost double the California average in 1997–98.

The differences become more marked when the figures are adjusted for the cost of living in California, as was done by Education Week in its January 2000 report, Quality Counts. This analysis used as criteria:

- education spending per student, adjusted for regional cost differences;
- the percentage change in inflation-adjusted education spending per student (from 1988 to 1998); and
- the percent of total taxable resources spent on education.

On this basis, Education Week gave California a D- for funding adequacy.

As California has increased its per pupil funding in recent years, public interest in the state’s position vis-a-vis other states has also increased. Many observers are frustrated by the fact that most state-to-state comparison data is two years old. This has led to invalid comparisons from some government leaders, members of the media, and researchers. Some groups have used such comparisons to assert that California school expenditures are no longer lower than the national average. They based their analyses, however, on an apples-to-oranges comparison that contrasted projected California revenues with estimated national expenditures for previous years.

In For Better or For Worse?, PPIC concludes that the difference in spending on K–12 education between California and other states reflects a choice by California and its state leadership, rather than an inability to pay. The report notes that while the state’s per capita spending on education is below much of the rest of the country, its per capita personal income remains higher than average. In addition, its general population has grown at the same pace as public school enrollments.

**Differences in district revenues cause frustration for educators**

California educators often decry the low level of revenues school districts receive compared to other states. This may also help explain some of their continuing complaints regarding unequal funding between districts in the state. When people perceive that they are not receiving adequate funding in the first place, even minor inequities can matter a great deal. But to fully understand the issues of funding equity in this state, one has to look both at base revenues, which are relatively equal, and at categorical funds, which can create dramatic differences in total revenue.

**Base revenues are equitable, within the parameters of the Serrano decision**

On paper, the differences in base revenues among school districts are within a relatively narrow band, with a very small number of students in the districts that are exceptions. This does not prevent some school districts from complaining bitterly about the differences that do exist.

One catalyst for these complaints was the 1998 recalculating of revenue limits based on a change in the definition of Average Daily Attendance (ADA). Previously, ADA was equal to the number of students in attendance plus those students who missed school but had a permissible excuse such as illness. Those excused absences were excluded from ADA beginning in 1998–99. At the same time, the state recalculated revenue limits to attempt to protect districts with high excused absences from a net loss of income. This resulted in some other districts moving from the top to the bottom of the Serrano band, raising numerous complaints. To respond to this issue, the Legislature passed AB 2460, directing the Office of the Legislative Analyst (LAO) to evaluate the situation. As Figure 3 (on page 6) shows, the LAO demonstrated that just 25 school districts, serving fewer than 8,000 students, have a revenue limit below the Serrano band.

Presumably, many of the complaints came from districts funded within the band but envious of those who received more. Of course, the revenue limit is just one part of the picture, particularly when it constitutes only about two-thirds of total funding on a statewide level.

**Earmarked funds create differences that do not always correspond with student need**

The finding that base revenues to school districts are fairly even does not account for some dramatic differences in total revenues. These are caused primarily by differences in the amount of categorical funding districts receive. For example, in
1997-98, Western Placer Unified School District received a total of $553 per pupil in categorical aid, about 12% of the district's total per pupil revenues of $4,447. San Diego Unified, on the other hand, received $2,004 per pupil from categoricals, or 34% of its $5,942 in per pupil revenues. Similar variations can be found within counties and between districts that share much in common.

The first categorical programs were created to address differences in student need. Thus, many might expect that the variations in categorical funding between California school districts could be explained by differences in student characteristics, with more funds going to districts that serve a high proportion of students with special needs. An EdSource analysis of the data, however, revealed no definitive relationship between student characteristics and total school district revenues. This probably reflects the growing tendency among state, and to some degree federal, lawmakers to earmark funds for specific educational programs and reforms that have nothing to do with student differences. In California, the result has been tremendous growth in categorical programs and a distribution of resources that is

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**Figure 3**

**Most Districts Fall Within the Serrano Band**

The following table includes revenue limits for all school districts. In approximately 60 of these districts, local property tax revenues exceed the revenue limit. These "Basic Aid Districts" are allowed to keep the excess property taxes and receive $120 per pupil in constitutionally guaranteed basic aid from the state. Thus they have more money for general purposes than their revenue limit amount.

<table>
<thead>
<tr>
<th>Type of district</th>
<th>Lowest revenue limit</th>
<th># of dists. and total ADA* below Serrano band</th>
<th>Range of revenue limits within Serrano band</th>
<th># of dists. and total ADA within Serrano band</th>
<th>Highest revenue limit</th>
<th># of dists. and total ADA above Serrano band</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Elementary (&gt;100 students)</td>
<td>$3,793</td>
<td>1 district, 310 students (ADA)</td>
<td>$3,840 to $4,168</td>
<td>438 districts, 1,086,042 students (ADA)</td>
<td>$5,556</td>
<td>30 districts, 43,950 students (ADA)</td>
</tr>
<tr>
<td>Large Unified (K-12 &gt;1,500 students)</td>
<td>$3,980</td>
<td>none</td>
<td>$3,980 to $4,300</td>
<td>229 districts, 1,580,754 students (ADA)</td>
<td>$6,144</td>
<td>26 districts, 133,706 students (ADA)</td>
</tr>
<tr>
<td>Large High School (&gt;300 students)</td>
<td>$4,575</td>
<td>none</td>
<td>$4,575 to $4,895</td>
<td>83 districts, 484,651 students (ADA)</td>
<td>$5,678</td>
<td>4 districts, 33,270 students (ADA)</td>
</tr>
<tr>
<td>Small Elementary (&lt;100 students)</td>
<td>$3,888</td>
<td>20 districts, 1,415 students (ADA)</td>
<td>$4,763 to $5,092</td>
<td>66 districts, 2,978 students (ADA)</td>
<td>$7,729</td>
<td>8 districts, 303 students (ADA)</td>
</tr>
<tr>
<td>Small Unified (K-12 &lt;1,500 students)</td>
<td>$3,954</td>
<td>4 districts, 5,635 students (ADA)</td>
<td>$4,204 to $4,508</td>
<td>51 districts, 36,026 students (ADA)</td>
<td>$5,742</td>
<td>13 districts, 5,182 students (ADA)</td>
</tr>
<tr>
<td>Small High School (&lt;300 students)</td>
<td>$5,118</td>
<td>none</td>
<td>$5,188 to $5,378</td>
<td>6 districts, 1,079 students (ADA)</td>
<td>$5,378</td>
<td>none</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>25 dists. &amp; 7,730 students (ADA)</td>
<td></td>
<td>873 dists. &amp; 5,212,890 students (ADA)</td>
<td></td>
<td>90 dists. &amp; 191,873 students (ADA)</td>
</tr>
</tbody>
</table>

*Average Daily Attendance

Data: Office of the Legislative Analyst, 1999
less targeted to disadvantaged students. Thus, need-based programs have become a smaller portion of the total and have less impact on a district's funding relative to the total.

This is not to say that categoricals funded based on student characteristics have disappeared. As Figure 4 shows, they still represent just more than a fourth of state categorical funding. They also constitute about three-fourths of the federal funding that goes to California schools, which was more than $4 billion in 1999–2000.

“Educational resources” are unevenly distributed among school sites

As in most states, school districts are the primary fiscal agents for receiving funds and reporting expenditures in California. While some school districts compile school-level financial data for local use, they are not required to do so or to report the data to the California Department of Education (CDE). Thus financial data at the school level is not generally available.

Despite this lack of information, researchers have attempted to look at differences in support from school to school. They have done so by substituting nonfinancial measures such as quality teachers and rigorous curriculum, which are sometimes referred to as “educational resources.” This research indicates that significant variations exist in both teacher quality and curriculum offerings. Further, those school sites with the poorest of these resources often tend to be those that serve the highest proportion of low-income children.

School sites serving poor students are less likely to have qualified teachers

While “teacher quality” is in many ways hard to define or quantify, researchers have independently used very similar measures. A teacher’s experience, education, and credentialing are increasingly seen as barometers of quality, but not without some caveats. In a 1999 study, Class Size Reduction in California 1996–98, California’s CSR Research Consortium makes this point specifically. “It is important to remember that while these characteristics may be related to quality, they are not direct measures of a teacher’s effectiveness in a classroom.”

In research conducted by SRI International and sponsored by the Center for the Future of Teaching and Learning, substantial inequities were found in teacher quality based on the socioeconomic status (SES) of a school’s students. (See Figure 5 on page 8.) These findings echo those of many other researchers, including the CSR Research Consortium.

In its 1999 publication, The Status of the Teaching Profession, the center concludes: “Those students in greatest need of effective teachers are the most likely to be in classrooms with under-
qualified teachers. In fact, the distribution of qualified teachers is quite uneven across the state. Students in poor, inner-city schools are much more likely than their more advantaged suburban counterparts to have underqualified teachers."

PPIC also explored this issue in its February 2000 report, *Equal Resources, Equal Outcomes?* They found that the distribution of qualified teachers not only varies across schools throughout the state but that it often varies across schools within the same district. Teacher assignments are typically decided at the district level, but the process varies by district and must be negotiated with teacher unions.

Access to rigorous high school curriculum provides another measure of equity

California schools also appear to vary in the rigor of the curriculum they offer, at least at the high school level. The best available measure of this is the number and percentage of advanced course offerings a high school provides, including Advanced Placement (AP) courses and those that satisfy the entrance requirements at California’s public universities (called the a-f courses).

Two separate studies recently conducted by the PPIC and the California State University Institute for Education Reform (CSU-IER) indicate the following:

- California high schools vary somewhat in the availability of a-f and AP courses by student socioeconomic status, student ethnicity, school location, and school size.
- Small, rural schools offer the lowest percentages of a-f and AP classes in their curriculum.
- African American and Hispanic students are disproportionately low in their participation in AP courses, and this holds true across all variations in AP class availability.
- Asian American students’ participation is disproportionately high and white students’ participation is proportional.

Both PPIC and CSU-IER researchers warn against drawing too many conclusions from these generalizations. They report finding many exceptions throughout their data collections.

The available statistics do not explain why these differences in availability and student participation exist. The variations may be due to uneven access to funding or appropriately trained teachers. They may reflect a lack of awareness or a lower demand for rigorous academic programs on the part of certain school administrators, teachers, parents, or students. Low participation may also result from cultural attitudes or from a lack of necessary academic preparation prior to the high school years. Effectively addressing the issues of equal access to a rigorous high school curriculum would require better information about these issues.

Community support varies substantially

With the shortage of funds in many California schools, school principals and other educators have become more aggressive in soliciting financial support from their communities. Field trips, after-school sports, library clerks, computers, library books, arts education, and school assemblies are among the most common “extras” paid for by parent organizations, corporate partners, and local education foundations. Some private foundations and corporations have targeted their support to schools and districts with low-income students.
Parent and community support can vary substantially, and in California's wealthiest communities local education foundations have been known to raise sizable amounts per pupil. In For Better or For Worse?, PPIC attempted to look at this more systematically by examining the income tax statements filed by nonprofit organizations affiliated with schools, such as parent-teacher organizations and local education foundations. PPIC found that "a few schools in wealthy areas received more than $500 per year per student in voluntary contributions." Conversely, they report that "90% of California's students attended schools in which such contributions amounted to less than $100 per pupil." PPIC notes further that these contributions have not been enough to affect overall equity among districts.

Doubts about efficiency and effectiveness haunt the discussion

While California's schools may be underfunded—and neither revenues nor educational resources are evenly distributed—the way that school districts spend existing funds can also be problematic. Many critics of public schools accuse them of wasting the funds they receive or of, at least, not using them well. Educators are certainly aware of these criticisms and in some cases may agree. Lawrence Picus, professor of education at the University of Southern California, puts it succinctly: "We need more money for schools in California, but that money should not simply be given to school districts to spend as they have in the past. Rather, it is important to create incentives for districts to use funds in ways that research shows do improve student learning...In short, we need more money, but we need to spend it more wisely."

Public resources are scarce and competition for them is fierce. The public certainly also has a right to demand accountability and academic results in return for their tax contributions. Accordingly, both school and state officials are under tremendous pressure to see that public education dollars are well spent.

Generally, this issue has two different aspects. One is efficiency, which involves the management of public funds. The other aspect is whether money is allocated as effectively as possible to achieve educational goals—a more complicated question that is also more difficult to answer clearly.

Serious mismanagement is rare but very visible

School district officials vary in their skills as money managers and their conscientiousness in protecting the public trust. Overall, however, California public school districts operate within the state's guidelines of fiscal responsibility. Further, they spend the funds they have in much the same way as school districts do in other states. Unfortunately, the reported cases of serious mismanagement—such as Oakland and Compton—receive widespread attention and can undermine public and policy maker confidence in school district administration.

From a state policy perspective, the issue of school district mismanagement has been addressed in several ways in California. Various reviews and safeguards exist to protect the public interest. They include independent financial audits of district finances, county office oversight, and the provision for state takeover in extreme situations. Despite some instances of mismanagement, it is
"We are trying to adjust to the most challenging issues of student diversity in the nation with a second-class budget. Additionally, mandates from our state government limit our ability to use our resources effectively."  
Glenn Massengale, Superintendent  
Barstow Unified School District  
EdSource Superintendent Survey, 2000

doubtful that the amount of money "wasted" would be sufficient to substantially improve the effectiveness of the education effort in the state as a whole. In addition, it is unfair to generalize about the operations of all 988 California school districts based on the actions of just a few.

Earmarked funds force a balancing act between effectiveness and efficiency

In recent years, California state policy makers have tried to make schools more effective by earmarking a growing proportion of the funds school districts receive. (See Figure 6 on page 9.) Programs like class size reduction and PAR, the peer assistance and review program for teachers, carry with them assumptions about the need for uniformity across the state. State leaders can also assure, through this type of earmarked funds, that school districts use the money the way policy makers believe is appropriate.

Increased regulatory requirements create extra expenses related to documentation, accounting, and enforcement, however. Many argue that they can lead to serious inefficiencies, taking funds away from the classroom where they would be more effective in improving student performance. Opponents of earmarking also balk at the statewide "one-size-fits-all" approach that limits districts' ability to address unique local problems and circumstances creatively.

State leaders' actions to reduce local school district discretion over spending seem to some to be at cross-purposes with California's simultaneous creation of a strong accountability system. In its analysis of the governor's 2000-01 budget proposal, the Office of the Legislative Analyst (LAO) states: "If the state is going to hold local school districts accountable for improving student performance, it is essential that these same districts be given the resources and local budgetary discretion to allocate resources based on local needs. Without these resources and flexibility, districts are severely constrained in their ability to make necessary changes and improvements in programs and operations."

While many quarrel with the wisdom of state earmarking, the trend reveals a growing realization in California that school funding can be used to leverage improvement. This realization has occurred at the same time as the increased focus on standards-based education reform.

In The Dynamics of School Resource Allocation, University of Wisconsin-Madison researchers Allan Odden and Sarah Archibald highlight the intersection between education reform and the use of school resources, particularly as it relates to efficiency. "Today's prime education reform goal is to teach all students to high standards," they write. "One message embedded within this goal is that reform is focused on all students, or at least all but the most severely disabled students. However, teaching all students to high standards means raising performance much more and at a faster pace than resources will rise. Most analysts predict that resources will rise by only 25% in real, per pupil terms over the next 10 years, the period of time in which we want to double or triple the portion of students now achieving at performance standards. Thus, underneath the stated goals of current education reform is the unstated imperative to improve the productivity of the system."

Defining "adequate" starts with clarity about the system's educational goals

The idea of educational productivity can inform how education dollars are spent. But it also assumes that the level of school funding is in some way linked to the expectations for school system performance. The creation of this linkage—which means using the concept of adequacy to set policy regarding school funding—can be seen as a three-step process. (See the diagram on page 11.)

Higher expectations for student achievement form a foundation for determining funding

First, an "adequate education" must be clearly and explicitly defined. Then the state can determine what schools need in order to provide that education, both in terms of the components of an effective system and the money needed to pay for it.

Defining an "adequate education" is thorny business. In other states, courts have ruled on the issue in two different ways. Some have decreed that adequate means a basic level of education is offered to all, a test the states in question have generally met by having space in a classroom for every child. More recently, state courts have overturned school funding systems based on
the notion that basic is not enough. They say that an "adequate education" is one that provides the level of learning and skills now required to function well as citizens and find a place in today's work world.

The task of determining that set of desired skills and knowledge generally falls on state policy makers and educators to resolve. To the extent that a state has determined performance standards, the courts could be expected to define adequacy to mean the provision of programs and services sufficient for a student to meet those standards.

**Despite several obstacles, California is striving to establish new high standards**

Without any court mandate, California has made some progress in defining its academic standards for an adequate education. Starting in 1996, the state began adopting academic content standards that describe what should be taught at all grade levels in the core curriculum areas. Those standards are generally seen as quite high. Local districts are in various stages of implementing the curriculum and instruction needed to comply with the standards, which are technically voluntary.

In 1999, Governor Gray Davis and state legislators took a more assertive step by mandating a high school exit exam. This test—which high school students will be required to pass beginning in 2004—is meant to bring further clarity to the level of education California considers "adequate" in its public schools.

**Standards and measurements are not yet fully developed or aligned**

California has faced a difficult and divisive challenge in attempting to measure school and student performance based on its standards. Some of this reflects a problem of timing. The state adopted a new statewide testing system before its academic content standards were completed and is left struggling to bring the two into alignment. It embarked on a new accountability system without waiting for that alignment to be completed or for other measures of system performance to become available. Thus, schools began being held accountable for performance based on one nationally-normed test of basic skills—the Stanford Achievement Test, Ninth Edition, or SAT-9—which falls short of measuring what the state standards say students need to know and be able to do. In addition, many districts have not yet completed the process of aligning their curriculum and instruction with either the standards or the SAT-9.

The lack of alignment has created significant tensions in the state. It also may have obscured some broader agreements that California's policy makers and educational leaders share. For example, according to the SAT-9 and a variety of other measures, the California public school system is clearly working for some students. And in those cases, the student outcomes are consistent with the state's expectations, even at the very highest levels. At the same time, vast discrepancies in student performance exist, most often along socioeconomic lines, with less privileged students performing less well as a group. In California, the high proportion of
"Our state standards, while creating some difficult issues, will turn out to be a very positive step in educating young people."

Robert Lowden, Superintendent Trinity Union High School District
EdSource Superintendent Survey, 2000

students learning English adds additional challenges. The overall level of student performance appears to be no more acceptable to educators than it is to policy makers or the public.

California has yet to determine student performance standards as well as what obligations the state education system has to the lowest and highest achievers. In addition, what part of student achievement is the schools' responsibility and what is beyond the schools' control or outside of its charge?

The effects of poverty on student achievement present an extra challenge

If California decides to use a student-achievement goal to define and measure the adequacy of public education, it faces another formidable challenge. The state must decide how it will deal with the very real effect that poverty has on student achievement.

In its report Equal Resources, Equal Outcomes? PPIC looked at how a school's resources and student characteristics related to student achievement. The authors reported: "Among school resources, the level of teacher experience and the percentage of teachers without a full credential are the variables most strongly related to student outcomes. However, the most important factor relating to student outcomes is SES [socioeconomic status]." (See Figure 7.)

The clear implication is that schools alone are not able to compensate for poverty's effect on student achievement, at least not within the parameters of the current system. In a January 2000 article in New York Times Magazine, James Traub reflected on some of the research and the implications for school improvement. "The idea that school, by itself, cannot cure poverty is hardly astonishing, but it is amazing how much of our political discourse is implicitly predicated on the notion that it can," wrote Traub, a contributing editor. "An alternative explanation, of course, is that educational inequality is rooted in economic problems and social pathologies too deep to be overcome by school alone. And if that's true, of course, then there's every reason to think about the limits of school, and to think about the other institutions we might have to mobilize to solve the problem."

Low funding may limit schools’ capacity for improvement

The concerns about performance measures and the number of disadvantaged students complicate Californians' ability to agree on what is necessary to improve public education. However, the general consensus is that the expectations for students as a whole need to be higher to meet state standards. That, in turn, will require improvements in the system.

Many educators, along with other concerned Californians, say that the state's funding is inadequate to the task. Put another way, the push for a better school system and increased student performance can only be accomplished if schools have adequate resources with which to do the job, and California's public schools do not currently have those resources.

California policy makers do not seem inclined to simply "throw money at the problem."

![Figure 7](Poverty Has a Greater Effect on Student Achievement than any Single School Characteristic)

Data: Equal Resources, Equal Outcomes, Public Policy Institute of California, 2000
EdSource 4/00
The California Constitution does not address the issue of adequacy

California has not faced a constitutional challenge to its school system based on adequacy due, in some measure, to the wording in the state Constitution.

The California Constitution (Article IX, Section 5) establishes the state's obligation to provide public education by simply stating: "The Legislature shall provide for a system of common schools by which a free school shall be kept up and supported in each district at least six months in every year...."

The Constitution also states the following legislative policy in regard to education (Article IX, Section 1). "A general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement."

However, in many other states, like-minded leaders have first sought greater clarity about what constitutes an adequate public education system. An exploration of that, many believe, is essential in order to get to a reasoned determination about how much money schools need.

What California schools need to meet new state expectations

If every school in California were identical in the needs and abilities of its students, the skills of its educators, and the nature of its surrounding community, state leaders might find it simpler to improve the system. Uniform regulations, funding, and expectations would be quite logical. But American schools—and perhaps California schools in particular—vary dramatically from place to place. That is one reason many Americans hold tightly to the concept of local control of public schools.

A tension exists between the belief in local control and the growing insistence—from the courts, the public, and policy makers themselves—that states take responsibility for educational outcomes. This conflict is seldom explicitly debated, yet it consistently undercuts California's ability to effectively resolve many issues related to school funding.

Eventually, California may have to grapple with this governance issue. In the meantime, however, Californians can still address the question of what it takes to create an adequate school system—a system that can deliver the high quality public education now expected in California and needed to maintain the state's economic vitality. The good news is that some agreements are emerging about what is most important. The next step is to determine what is missing in California's system today—identifying the greatest needs for additional resources. And finally, a critique of how the state currently funds its system—both in terms of amount and allocation—may help determine what it would take to close the gap between the schools California has and the schools it needs.

Researchers, superintendents, and the public identify key ingredients of an adequate system

The effectiveness of various education reforms, initiatives, and expenditures can vary dramatically based on local circumstances. In other words, what works in one setting may work less well or not at all in another. That said, research and practice do point to certain things as essential to effective schooling.

Researchers say qualified educators are vital to an effective system

Many researchers have attempted to determine which components of the education system make the most difference in student achievement. Although some conclusions are emerging, experts cite this research with the caveat that the links between educational inputs and specific outcomes are somewhat elusive.

Research findings from a wide variety of sources suggest that putting resources into improving educator qualifications—building the capacity of educators—pays off in terms of student performance. Researchers recommend improving the quality of teacher preparation and establishing more rigorous and demanding teacher certification practices. Researchers also suggest more and higher quality professional development opportunities for current teachers and administrators. Higher salaries, they say, are needed to attract and retain the best and brightest in the education profession.
**EdSource surveys school district superintendents**

In January 2000 EdSource sent a survey to every school district superintendent in California, asking them about school funding as it relates to adequacy of education. Almost one-third of the state's superintendents responded. The profile of their districts was somewhat different from the state as a whole:

<table>
<thead>
<tr>
<th>Type of district</th>
<th>Survey respondents</th>
<th>State as a whole*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unified</td>
<td>40%</td>
<td>32%</td>
</tr>
<tr>
<td>Elementary</td>
<td>51%</td>
<td>58%</td>
</tr>
<tr>
<td>High School</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of students on free/reduced price meals</th>
<th>Survey respondents</th>
<th>State as a whole*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–21%</td>
<td>27%</td>
<td>25%</td>
</tr>
<tr>
<td>22%–40%</td>
<td>27%</td>
<td>25%</td>
</tr>
<tr>
<td>41%–62%</td>
<td>24%</td>
<td>25%</td>
</tr>
<tr>
<td>63%–100%</td>
<td>22%</td>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of district</th>
<th>Survey respondents</th>
<th>State as a whole*</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 1,000 ADA</td>
<td>32%</td>
<td>43%</td>
</tr>
<tr>
<td>1,001–5,000</td>
<td>31%</td>
<td>29%</td>
</tr>
<tr>
<td>5,001–10,000</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>10,001–20,000</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>&gt; 20,000</td>
<td>8%</td>
<td>6%</td>
</tr>
</tbody>
</table>

*State data are from 1998-99.

The full results of this survey are available on the EdSource website at www.edsource.org.

**Figure 8**

**EdSource Survey: Question #1**

How important are the following components to an adequate education system in California? (320 respondents)

<table>
<thead>
<tr>
<th>Component</th>
<th>Average response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualified, effective teaching staff</td>
<td>1.05</td>
</tr>
<tr>
<td>Qualified, effective school site leadership</td>
<td>1.09</td>
</tr>
<tr>
<td>Qualified, effective district leadership</td>
<td>1.22</td>
</tr>
<tr>
<td>Safe, secure schools</td>
<td>1.40</td>
</tr>
<tr>
<td>Challenging and balanced instructional program</td>
<td>1.48</td>
</tr>
<tr>
<td>Extra support for low-performing students</td>
<td>1.52</td>
</tr>
<tr>
<td>Instructional materials aligned with state standards</td>
<td>1.59</td>
</tr>
<tr>
<td>Valid, reliable student assessments aligned with state standards</td>
<td>1.60</td>
</tr>
<tr>
<td>Well-maintained school facilities</td>
<td>1.68</td>
</tr>
<tr>
<td>Capacity for school data analysis and program evaluation</td>
<td>1.80</td>
</tr>
<tr>
<td>Qualified, effective student support services (nurses, counselors, etc.)</td>
<td>1.93</td>
</tr>
<tr>
<td>Up-to-date technology for instruction and operations</td>
<td>1.93</td>
</tr>
<tr>
<td>Effective programs for parent involvement</td>
<td>2.00</td>
</tr>
<tr>
<td>Small class sizes across all grades and subjects</td>
<td>2.02</td>
</tr>
<tr>
<td>Appropriate school facility design and size</td>
<td>2.08</td>
</tr>
<tr>
<td>An extension of the traditional school day/year for all students</td>
<td>2.11</td>
</tr>
</tbody>
</table>

Linda Darling-Hammond and Deborah Loewenberg Ball, professors of education at Stanford University and the University of Michigan, respectively, put a particular emphasis on teachers. "What teachers know and can do is crucial to what students learn," they say in *Teaching for High Standards: What Policymakers Need to Know and Be Able to Do*. They also suggest the further policy implication that "school reform cannot succeed unless it focuses on creating the conditions—including school and curriculum contexts—in which teachers can teach well."

**California superintendents say educators are first of many priorities**

In an EdSource survey conducted in January 2000, California school district superintendents echoed these research findings. They were asked to rate the importance of various components to an adequate education system in California (see Question #1). Qualified, effective teaching staffs, school site leadership, and district leadership were the three top items on their collective list regardless of the district size or the economic profile of the students they served. This response was
also consistent across all three types of districts—elementary, unified, and high school—with one exception. High school superintendents placed a “challenging and balanced instructional program” as slightly more important than qualified, effective district leadership.

Survey participants put “safe, secure schools” fourth on their collective list. This certainly is in line with the public’s belief, expressed in numerous public opinion polls, that safe and orderly schools are of paramount importance.

Superintendents—particularly of high school districts—also show their support for high academic standards by putting a “challenging and balanced instructional program” near the top of their list. They also call for extra support for low-performing students.

From the responses to this survey question, superintendents indicate that a great many factors go into the creation of an education system capable of achieving high standards. When presented with a choice of 16 components, they gave almost no ratings of “not important.” An extension of the traditional school day/year was given this low rating by just 12 respondents, and five other components received just one or two ratings as “not important.”

Public opinion echoes similar priorities

In 1999 respondents to a national poll about public schools echoed many of the same opinions voiced by California’s superintendents. “The public’s concern for discipline and for the quality of the teaching staff are threads that run throughout this year’s poll,” said the authors of the 31st Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes Toward the Public Schools.

While Gallup respondents did not express a lack of confidence in today’s teachers, they were nearly unanimous about some aspects of teacher quality. About 97% agreed that “those who want to become teachers should be required, before they are hired, to prove their knowledge of the subjects they will teach.” When asked about effective incentives for attracting and keeping qualified teachers, 90% favored increasing pay for teachers who demonstrate high performance; 86% favored offering loans and scholarships for prospective teachers; and 85% favored school-based professional development opportunities.

Concerns about school safety were also uppermost for the Gallup respondents. In an open-ended question, the poll asked what “one thing they would change in order to improve public schools in their communities.” The most common response, at 12%, was to enact more control and stricter rules. Another 10% said they would hire more teachers in order to reduce class size.

Survey results: California schools need more support for teachers and low-performing students

The EdSource survey also asked superintendents for their top five spending priorities if they had full discretion to spend additional funds in their districts. The responses to this question (see Question #2, page 16) coincide with the concern about qualified teachers. Superintendents most often cited “providing more/better teacher professional development” and “raising teacher salaries” as their top spending priorities. These were ranked in the top three by more than half of superintendents, regardless of the size, configuration, or student-poverty level of their districts.

Spending additional funds for “enhancing and improving the instructional program” ranked in the top five spending priorities for 64% of high school superintendents. This same group also varied from their peers by placing less importance on smaller class size as a spending priority, with just 32% putting it near the top of their list compared to 40% overall.

Providing extra support for low-performing students was also an important priority. Large school districts expressed a particular need for it.

Equally revealing are the items that superintendents were least likely to place among their top five funding priorities. “Creating and operating smaller schools” was one of the least mentioned spending priorities for superintendents, regardless of district grouping. No high school superintendents placed this option in their top five. This result is of particular interest because so much research cites small school size as important to student achievement.

Stanford Professor Michael Kirst, director of Policy Analysis for California Education (PACE) and a long time commentator on California school finance issues, sees a straightforward explanation for
Ed Source Survey: Question #2

If education funding were increased and districts had complete discretion over the use of these funds, what would be the first spending priorities of your district?

<table>
<thead>
<tr>
<th>% who selected item as one of top 5 (out of 322 respondents)</th>
<th>Average weight per response*</th>
</tr>
</thead>
<tbody>
<tr>
<td>% who selected item</td>
<td>Average weight per response*</td>
</tr>
<tr>
<td>Providing more/better teacher professional development</td>
<td>58%</td>
</tr>
<tr>
<td>Raising teachers' salaries</td>
<td>53%</td>
</tr>
<tr>
<td>Enhancing and improving instructional program</td>
<td>46%</td>
</tr>
<tr>
<td>Providing extra support for low-performing students</td>
<td>42%</td>
</tr>
<tr>
<td>Providing smaller class sizes across more grades and/or subjects</td>
<td>40%</td>
</tr>
<tr>
<td>Acquiring instructional materials aligned to state standards</td>
<td>33%</td>
</tr>
<tr>
<td>Hiring more student support staff (nurses, counselors, etc.)</td>
<td>32%</td>
</tr>
<tr>
<td>Lengthening the school day/year for all students</td>
<td>29%</td>
</tr>
<tr>
<td>Updating technology for instruction and operations</td>
<td>27%</td>
</tr>
<tr>
<td>Providing more/better professional development for principals/administrators</td>
<td>24%</td>
</tr>
<tr>
<td>Improving the condition of facilities</td>
<td>22%</td>
</tr>
<tr>
<td>Raising principals' and/or district administrators' salaries</td>
<td>21%</td>
</tr>
<tr>
<td>Increasing capacity for school data analysis and program evaluation</td>
<td>19%</td>
</tr>
<tr>
<td>Making schools safer and more secure</td>
<td>12%</td>
</tr>
<tr>
<td>Creating and operating smaller schools</td>
<td>12%</td>
</tr>
<tr>
<td>Creating more effective programs for parent involvement</td>
<td>8%</td>
</tr>
</tbody>
</table>

* This was calculated by averaging all weights given to this option (1 to 5) by those who put it on their list of five. For example, if 8% of respondents who chose parent involvement had placed it as the first priority, it would have had a 1.00 in this category. The smaller the number, the higher priority the respondents gave it.

An interesting contrast also emerged between the high priority superintendents gave to safe, secure schools as an important component of the education system, and their relatively low rating of "making schools safer and more secure" as a priority for local spending. Just 12% of total respondents put it on their top five spending list, though 25% of high school district superintendents did so.

Superintendents say school funding is neither adequate nor allocated well

If it were up to the superintendents responding to the EdSource survey, California would change its school finance system in two general ways. It would give K-12 education more money, and it would allow districts more flexibility in how funds are spent. (See Question #3, page 17.)

Increasing the total amount of funding was in the top five for 89% of respondents. They chose either or both of the related selections, "bring the per pupil expenditure up to the national average" and "come to consensus on what constitutes an adequate education and fund it." Of particular note, the 54% or 174 superintendents who selected the latter were quite emphatic, with 94 of them ranking it their first choice.

Notably, nearly 80% of the respondents cited full funding of Special Education costs as a top concern. A full exploration of the Special Education system, its growth, and its impact on regular education are outside the scope of this publication. (See the box on page 17.) However, the survey suggests that ignoring the topic of Special Education as an integral part of the larger school finance issue in California will leave a major problem unsolved.

The need for greater flexibility also received a strong nod from many respondents, who wanted to receive a greater proportion of revenues as
non-earmarked funds. Support for this was particularly strong among the smallest school districts (with 1,000 or fewer students), with 73% of these respondents putting greater flexibility in their top five choices. The same superintendents were also more likely than their large-district counterparts to call for a simpler school finance system.

Greater equalization of revenue limits and increased ability to raise school revenues locally were lower on the respondents' priority list. They also showed little support for reforming the governance structure to provide school sites with more fiscal control.

**California can learn from other states' experience with adequacy models**

When decision makers have come to consensus on what defines an adequate education (and for whom), they must then determine how much money is enough to make that system possible. Unfortunately, this too is difficult for a variety of theoretical and practical reasons. As California considers this question, policy makers may want to look at the approaches attempted and lessons learned in other states. Researchers offer some useful insights from their evaluations of these approaches.

**Research offers some general advice on how to address funding adequacy**

A substantial body of new research on the issue of funding adequacy is available from the Consortium for Policy Research in Education.

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**Special Education costs concern educators**

As respondents indicated in the EdSource survey, the level of state and federal support for Special Education is an issue of particular concern to many local educators. In an article by the Center for Special Education Finance, researcher Tom Parrish says, "Questions about the impact of rising costs of Special Education on general education programming are among the most contentious issues faced by the public education community today."

Parrish cites research documenting that Special Education expenditures nationally have grown as a percent of total budget at the same time the proportion of expenditures for regular education has decreased. He cautions, however, against addressing this trend without first understanding the reasons behind it, which can vary by state and by school district. In particular, Parrish writes that the rising Special Education expenditures in California come from the increased number of students being referred by general educators to receive specialized services. Clearly, he adds, a big part of the answer in regard to Special Education cost control must come from systemwide reform (general and Special Education combined).

In California, the number of Special Education students increased by half from 1987–88 to 1997–98. As a percentage of total enrollment, the Special Education population has grown from 8.6% to 11.0% of all students during that time.
(CPRE), a national consortium of academics. It can provide guidelines for state policy makers who are designing a new school funding system or contemplating new state-funded programs.

CPRE recommends that a school funding formula begin with a determination of the base funding amount required to adequately educate the “average” student to the acceptable standard. Then additional funds should be added to account for the special costs associated with educating students who start with a disadvantage (particularly learning disabilities, English language deficits, and poverty backgrounds).

The full cost of implementing new programs should be considered when establishing funding formulas. Beyond the price of the programs themselves, other costs may include the supplies, materials, technology, facilities, additional staff, and professional development necessary to properly implement those new programs.

Methods for considering regional differences in the cost of living and provisions for future inflation adjustments should be built into the funding system.

Three methods to determine adequate funding offer insights

On the theoretical side, the hard link between the allocation of money and specific student outcomes has remained elusive. For example, researchers find that funds used in one district to reduce class size or upgrade facilities improve student achievement. But funds used the same way in another district do not have the same effect. Such results illustrate that money is only one among a host of factors that affect the success of an education initiative. The effects of intangibles—such as school culture, existing school policies or programs, and educators’ skill in implementing the new program—are difficult to quantify.

In an attempt to account for these and other factors, policy makers throughout the United States have used various methods to try to more broadly determine how much money is enough. These strategies have both strengths and weaknesses. While researchers give them a variety of labels—and sometimes group them differently—for the purpose of this publication they are referred to as the “successful model,” “data-driven,” and “professional judgment” approaches. (For further information about each of these approaches, see Equity and Adequacy in Education Finance, published by National Academy Press.)

The successful model approach bases funding on high-performing schools

Some policy makers have created funding formulas based on the education costs in specific districts or schools that are considered successful. This approach uses two different types of models: 1) looking at actual districts that meet set performance criteria, or 2) using nationally recognized comprehensive school design models that have a

Ohio identified successful districts to determine an adequate funding level

In response to the DeRolph v. Ohio court ruling, the state of Ohio used the following approach to arrive at a recommended per pupil amount for 1996 of $3,930 (before additional resources are added for students with special needs and for other factors).

Researchers looked at all Ohio districts, removing districts with extremes of property wealth and per pupil spending levels to get a representative sample.

Within this sample, they identified all districts in which average student performance was at the 70th percentile or above on 17 of the 18 pre-selected measures of student performance.

They examined these high-ranking districts’ instructional arrangements and organizational characteristics. These include class sizes, school sizes, educator-pupil ratios, and course offerings. These elements were distilled and taken to be exemplary practices and conditions for districts attempting to reach specified levels of achievement. These practices became model instructional programs.

The researchers then assigned costs to the instructional components. Additional resources were then added for the needs of special populations of students and other factors.

In a 1997 revision of the Ohio study, the researchers eliminated their observation of actual components such as class sizes and only looked at what, on average, those schools spend per pupil.

A lack of data could hamper a similar approach in California. Complications could also arise because of the state’s huge variations between districts in terms of size, student characteristics, and local cost of living. Using district averages to draw correlations between cost and performance could also be misleading because wide variations in student profile, resources, and performance occur within many school districts.
respected track record. In both cases, the emphasis is on first identifying the "base amount for the average student." Factoring in the incremental costs for special needs students is a second step.

When high-performing districts or schools are used as the model, policy makers typically start by defining the level of student performance they consider adequate, usually based on test scores. Then, they identify schools or districts in which students are performing to that level. The cost of operating these schools or districts is calculated and their expenditures define "adequate funding" for achieving the level of student performance the state finds acceptable. This has been done—with some variations—in Ohio, Mississippi, and Illinois. (See the box for more on the Ohio model.)

This approach has the advantage of being intuitive and thus easy to understand. It may, however, lead to over-funding of districts because it relies on data from all districts with adequate outcomes, not necessarily those that produce them efficiently. With this approach, access to high-quality data is a key factor, including both student performance data and student/district characteristic data. This requires a sophistication in both data collection and tools to measure student outcomes that most schools and school districts do not currently have.

Increasingly, policy makers are also looking at some successful, nationally tested comprehensive school design models on which to base funding formulas. Programs in the New American Schools project—including "Accelerated Schools," "Roots and Wings" (based on Success for All), and the "Modern Red Schoolhouse"—have some documented success in improving student performance. They are also meant to be replicated, rather than being uniquely tied to a set of local circumstances.

Integral to these designs is a rethinking about how schools are organized and operated. In a February 2000 article in Phi Delta Kappan, Allan Odden notes: "These models tend to staff schools differently, group students differently, and approach curriculum and instruction differently. In short, implementing comprehensive school reform represents a major educational change." Odden demonstrates, however, that these models can be implemented at comparable or less cost than "traditional" staffing, making them a possible strategy for improving educational productivity.

In 1997, Odden developed cost estimates for these models that accounted for both ongoing expenditures and the one-time costs associated with systemic change. These cost figures generally began with a "core" staffing of one principal and a number of teachers based on a set pupil-teacher ratio. The latter is of particular importance, Odden notes, as class size is a major determinant of any school's cost. Beyond this core, the reform models varied in their cost structure based on program specifics. More recently, Odden developed a more standardized list of the key professional staff positions and resources needed to implement a comprehensive school design at the elementary level. These include:

- principals and vice principals;
- instructional facilitators to provide full-time instructional leadership;
- classroom teachers;
- regular education specialists to teach subjects such as art and music;
- a strategy for helping struggling students;
- site-based ongoing professional development;
- pupil support or family outreach depending on the students being served; and
- ongoing purchases of computer software and hardware.

One temptation, should a state use this general approach, would be to assume that the comprehensive school design should then be applied to all schools. Funding could end up being quite

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New York's data-driven method yielded widely varying results

In New York State, researchers William Duncombe and John Yinger attempted to use a data-driven method that took into account a number of outcome indicators. They then tried to arrive at a cost for educating the more disadvantaged student population in the New York City Schools, based on two different approaches to measuring the differences in student characteristics.

When they attempted to accommodate for differences based on community voting patterns, their model indicated that it would cost 7% more in New York City than in an average district statewide to yield average school performance. But when they used student performance data alone (e.g., test scores, graduation rates, and Regents diplomas), the cost differential was 262% more than the average.
There is an inherent tension between the state’s interest in guaranteeing an adequate level of resources, and the state’s interest in assuring that local initiative, creativity, and sense of control are mobilized to deliver those resources.

James Guthrie and Richard Rothstein
Equity and Adequacy in Funding

restrictive or prescriptive, affecting school districts’ initiative to improve. The developers of the New American Schools project believe strongly that different approaches work for different schools.

The data-driven approach relies on weighting “uncontrollable factors”

The focus of this strategy is to create a method by which weighting for “uncontrollable” factors such as student characteristics and cost-of-living differences can be accomplished systematically. Rather than putting the emphasis on finding one magic number for a state, this method uses a cost index to attempt to determine appropriate funding levels on a more local basis. Sometimes referred to as the “black box” or “raw correlational” approach, this requires first identifying the acceptable level of student performance and coming up with a base funding level. Then researchers use statistical methods to determine the money it would take for various systems to get to the educational goal based on the factors they do not control, such as local salary levels and student needs. (See New York box on page 19.)

This method is based on a relatively simple principle that bypasses the often contentious and complicated process of identifying and costing out each component of a successful school system. It also avoids prescribing any particular set of instructional practices that should be used in association with the money. Its validity, however, is predicated on access to a quantity of reliable data that most states do not have. Arguably, those states include California.

This complex statistical approach is also not easy to explain to policy makers, educators, or the public. More problematic to researchers is the extent to which this method’s accuracy depends on the assumptions and judgments used, and the fact that those assumptions are often not explicitly described. For state policy makers, a bigger concern could be that the model does not account for how efficient the system is, just how much it currently spends.

The professional judgment approach uses panels of experts

Some state policy makers rely upon panels of education experts to define an adequate education system, with the components each assigned a cost. A price tag for the whole system is then tabulated.

A variation on this theme was used in 1996 when the Wyoming Legislature had to redesign its school funding formula to satisfy the mandate imposed by the Wyoming Supreme Court’s Campbell County v. Wyoming decision. The Wyoming example (see box) combines the judgment of practitioners with data from national research and comprehensive school reform designs. Because of the extreme variations between schools, it leaves out of the base number specific costs for food service and for instruction of English learners and students in poverty.

Advantages of this approach include its relative simplicity and the opportunity it provides to involve many or all constituent groups. It can be used whether or not a state has quality measures of student performance or unanimity about student outcomes.

Although this approach is imprecise, it makes the assumptions upon which it is built absolutely clear, as in the Wyoming model. Two different panels could easily come up with different models and funding amounts, but why that occurred would be transparent.

Perhaps a more compelling criticism is that this approach can rely heavily on the status quo to identify what it takes to educate students. This method may not recognize or identify major changes that are necessary. Also, those who serve on the panels could be prone to some conflict of interest based on their professional perspective or affiliation.

Creating an adequacy approach is not a “cut-and-dried” process

Each of these strategies for determining “how much money is enough” has methodological strengths and weaknesses. And no matter which model they favor, researchers uniformly caution that the work takes time, commitment, and thoughtful analysis. They also agree on some overriding principles which may, in fact, be more important than the specific method chosen to explore the question of adequate funding.

The first principle is that a hard-and-fast number—an amount that is adequate in all schools and settings—is extraordinarily difficult to identify, no matter which of the above-mentioned strategies is used. Further, each method carries with it a certain amount of bias.
Second, agreeing on the cost adjustments required to educate students with special needs is almost as complex as dealing with base funding. While some would simply point to existing categorical programs as appropriate additional money, others would argue that some of these programs are currently underfunded—Special Education being a ready example.

A third principle comes from research done over decades regarding the relationship between funding and school performance. While findings differ in some significant ways, a convincing number of researchers agree that money can and does matter in education, depending upon how it is used. Further, local circumstances—such as unique student needs, the level of existing resources, and the abilities of local educators—determine the effective use of funds.

Researchers James Guthrie and Richard Rothstein focus on the latter point on page 28 in Equity and Adequacy in Funding. “Because a state identifies a collection of resources as adequate, and funds that collection, it does not mean that districts should be prevented from organizing

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### Professional judgment shaped the answer in Wyoming

Following is the state of Wyoming’s formula for an adequate system at a typical elementary school of 288 students based on 1995–96 costs. Similar models were created for middle and high schools.

<table>
<thead>
<tr>
<th>Description</th>
<th>Units (based on FTE**)</th>
<th>Salary cost (per FTE)</th>
<th>Salary driven and health benefits (per FTE)</th>
<th>Total cost for subcategories</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,156,552</td>
</tr>
<tr>
<td>• Teachers</td>
<td>20.0</td>
<td>$31,758</td>
<td>$9,675*</td>
<td>$828,660</td>
<td></td>
</tr>
<tr>
<td>• Substitute teachers</td>
<td>0.9</td>
<td>$10,500</td>
<td>$803</td>
<td>$10,173</td>
<td></td>
</tr>
<tr>
<td>• Aides (FTE)</td>
<td>3.0</td>
<td>$10,080</td>
<td>$1,915</td>
<td>$35,986</td>
<td></td>
</tr>
<tr>
<td>• Pupil support</td>
<td>1.5</td>
<td>$31,758</td>
<td>$9,675*</td>
<td>$62,150</td>
<td></td>
</tr>
<tr>
<td>• Library/media (could include certificated librarian, media assistant, and/or technician)</td>
<td>1.0</td>
<td>$31,758</td>
<td>$9,675*</td>
<td>$41,433</td>
<td></td>
</tr>
<tr>
<td>• School administration</td>
<td>1.0</td>
<td>$50,877</td>
<td>$13,308*</td>
<td>$64,185</td>
<td></td>
</tr>
<tr>
<td>• Clerical/data entry</td>
<td>2.0</td>
<td>$16,000</td>
<td>$6,681*</td>
<td>$45,362</td>
<td></td>
</tr>
<tr>
<td>• Operations</td>
<td>2.5</td>
<td>$20,000</td>
<td>$7,441*</td>
<td>$68,603</td>
<td></td>
</tr>
<tr>
<td><strong>Supplies and instructional materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$61,950</td>
</tr>
<tr>
<td>(about $215 per student)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$37,837</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>$153,810</td>
</tr>
<tr>
<td><strong>Categorical Aid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Special Education (an estimate that does not include low-incidence/high-cost disabilities)</td>
<td></td>
<td>$152,514</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Limited English speaking (varies by district)</td>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Disadvantaged youth (varies by district)</td>
<td></td>
<td></td>
<td>N/A</td>
<td>$1,296</td>
<td></td>
</tr>
<tr>
<td>• Gifted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student activities</strong></td>
<td></td>
<td></td>
<td></td>
<td>$2,167</td>
<td></td>
</tr>
<tr>
<td>(about $7.50 per student)</td>
<td></td>
<td></td>
<td></td>
<td>$26,352</td>
<td></td>
</tr>
<tr>
<td><strong>Professional development</strong></td>
<td></td>
<td></td>
<td></td>
<td>$7,200</td>
<td>$329,567</td>
</tr>
<tr>
<td><strong>Assessment</strong> (25 per student)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>District expenditures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Maintenance and operations</td>
<td></td>
<td>$93,064</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Administration &amp; miscellaneous expenditures</td>
<td></td>
<td>$159,323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transportation</td>
<td></td>
<td>$77,180</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL COST</strong> (for a school of 288 students)</td>
<td></td>
<td>$1,775,435</td>
<td></td>
<td></td>
<td>$6,165</td>
</tr>
<tr>
<td><strong>Total cost per pupil</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Salary-driven benefits in Wyoming include Social Security, Medicare, Workers Compensation Insurance, Unemployment Insurance, and State Pension.
* Includes $3,641 in health benefits
** FTE = full-time equivalent

While this process could be used in California, many specifics would have to differ. Necessary adjustments might begin with the school size, which tends to be larger in this state. The assumptions about ideal class size, student-teacher ratio, and staffing levels outside the classroom also differ greatly from what is found in California or even considered possible by some. Average wage levels are quite a bit higher in California, where the average annual teacher salary, for example, was $44,585 in 1997–98.
resources and instructional delivery differently to achieve the same objective. There is an inherent tension between the state's interest in guaranteeing an adequate level of resources, and the state's interest in ensuring that local initiative, creativity, and sense of control are mobilized to deliver those resources.

**Aiming for the national average may be a first step**

In many cases, large-scale changes in funding systems to achieve adequacy have been prompted by court mandates. Absent that—and given current political pressures plus a healthy state economy—California may choose to forego or at least postpone the more analytical approaches in favor of something more pragmatic, at least in the short term.

One option currently under debate is an initiative sponsored by the California Teachers Association (CTA) that would raise the state's per pupil expenditure to the national average. Language in the California Constitution (Article XVI, Section 8.5) suggests another much higher standard—the average per pupil expenditures of the 10 top spending states and the average class size of the 10 states with the lowest class sizes. As part of amending the Gann Limit in 1990, voters adopted this as a threshold below which schools would get additional funds if state tax revenues exceed a specific amount.

Both of these funding thresholds would provide significant additional revenues to public education. They would not, however, provide a clear and understandable calculation of a base funding level. This omission would leave the
Some cost estimates for K–12 improvements from the LAO

Responding to a legislative request, the Office of the Legislative Analyst (LAO) prepared rough cost estimates for a number of items. The analysts caution that actual costs would depend greatly on how programs were implemented. These are presented here not as suggestions for new categorical programs but to provide a perspective on how much districts would have to get to attain certain program or service levels.

Class size reduction in grades 4–12, assuming a 20-student maximum per classroom. One-time cost for facilities—up to $2 billion. Annual cost for operating the program—$2.6 billion.

An increase in beginning teacher salaries to $35,000 annually, assuming a 15% add-on for the increased costs of salary-driven benefits (such as retirement) and a comparable adjustment of the entire teacher pay scale to avoid "compaction." Annual cost—$1 billion.

Making sure every school has a librarian, based on a $60,000 annual salary and benefit cost for one librarian at each of the 6,050 schools that do not currently have one. Annual cost—$365 million.

Copies of these estimates are available from the LAO.

*The above estimates were presented at the request of the Assembly Select Committee on School Funding Reform on Feb. 29, 2000.

Meanwhile, California has raised its expectations for student achievement and thus for its public school system. Most experts agree that the capacity of the system also needs to increase if those expectations are to be met. Additional funds may be integral to that capacity building.

It seems only logical to add funding to the system in such a way that it actually results in some desired improvements. California school district superintendents and many researchers say teacher quality and professional development are most important. But a thorough and thoughtful examination of what is needed would look much deeper.

California could, in fact, follow the lead of other states and begin developing its own model for educational and funding adequacy. In a state as complex as this, achieving clarity about the overall goals of the educational system and about spending priorities would be a time-consuming and complex endeavor. Answers about the efficiency and effectiveness of the current investment in education may be equally elusive. Yet grappling with such difficult issues is a responsibility of leadership. And just as the state wants to hold its schools accountable for adequate performance, state leaders need to be held accountable for policy making that supports schools so they can meet expectations.

Today, in the spring of 2000, California may have an unusual convergence of fiscal ability and...
political will that could provide an immediate chance to increase support for schools. This is an opportunity the state could take today by simply raising per pupil funding, perhaps using some definition of the national average as a target. Or state leaders could base an increase on some other definition of the national average as a target. The question of having room for growing student populations is also very pressing in some communities. As one superintendent said, "None of this can be done without schools to put students in. Overcrowding undermines everything."

The need for more and better school facilities is an important issue in California. For a comprehensive examination of this vital topic, order the EdSource publication California's School Facilities Predicament.

At the same time, the state could embark on a long-term rethinking of the school finance system, perhaps as part of the work now being done on the K-16 Master Plan. Should California's state leaders decide to undertake this effort seriously, they will face both practical and political challenges.

On the practical side, California's state leaders may have a difficult time drafting policy that considers both local circumstances and systemwide education goals and standards. This is particularly true with the diversity within California in terms of the size, demographics, and dynamics in its 58 counties and nearly 1,000 school districts. The core issue is state leaders earmarking funds versus providing greater local or school district discretion.

On the political side, answering the question of how much funding is enough requires moving from a formula based on what is available to one that requires some consensus about what outcomes are desired from the system and agreement about the best way to try to get them. To be done well, that highly political undertaking will have to bridge the concerns of many different interest groups. Ultimately, it will require perhaps dramatic changes in the status quo. That will take a strong political will, clear leadership, a coherent vision, and some time.

If California does not begin this work now, when will it ever occur?
Executive Summary: 
How Much is Enough?

By a variety of measures, California's public school system appears to lack the capacity to deliver on today's higher standards and expectations for all its students. Many educators and policy makers believe that greater capacity will require additional funding. The more complex question is how much funding would be adequate for California public schools.

In an April 2000 report, How Much Is Enough?, EdSource frames the issues implicit in that question. The report also describes the school finance controversies in California that to some degree limit the state's answers.

California comes somewhat late to the discussion of funding adequacy. In many other states, the dialogue about school funding has already shifted to this question of adequacy and away from equity as the organizing principle for reform. It was funding equity, as defined by the courts, which began to reshape California's current school finance system nearly 30 years ago.

The Serrano v. Priest court decision—which took effect in California in the 1970s along with Proposition 13—resulted in the state Legislature dismantling California's property tax-based system of funding schools. The tenets of that decision began transforming the state's school funding structure, but much has happened since to create the current highly complex, state-controlled California school finance system.

California confronts both funding and allocation issues
Within the context of this system, both the level of funding and the allocation process raise controversy and frustration. Some key issues pervade the discussion.

✓ With per pupil expenditures well below the national average and a high cost of living in the state, California's public schools have had less money to work with than the majority of their counterparts, particularly in the nation's other industrial states.

✓ Despite the equalization of general-purpose money or base revenue limits required by the Serrano decision, substantial differences exist in the total revenues school districts receive. Serrano specifically excluded equalization of categorical or earmarked funds. At the time of the decision, most of these were additional funds allocated to help districts provide extra services to disadvantaged and disabled students. Since that time the definition and use of categorical funds has expanded. In recent years, the number of categorical programs unrelated to student need has grown, and the resulting differences in funding have little discernible relationship to student need.

✓ Educational resources—such as quality teachers—are unevenly distributed from school to school within the state, and sometimes within school districts. Consistently, schools serving the neediest students are also those most likely to have unqualified teachers.

✓ The efficient and effective use of current expenditures is also often questioned, including the extent to which spending decisions should be made at the state versus the district level. Within the context of new standards, the concept of educational productivity is gaining ground—the idea that schools need to increase the effect their expenditures have on student performance.

Defining “adequate” starts with clarity about educational goals
At the heart of the concept of funding adequacy lies the assumption that the level of school funding and how funds are used should in some way be linked to the expectations for student and school system performance. Developing school funding policy based on this assumption can be seen as a three-step process.

First, the goals of an “adequate education” must be clearly and explicitly defined. California's work on standards and accountability represents progress toward that goal but also illustrates how complex it can be to...
develop consensus. And California's task is not complete. The state has yet to determine the level of performance it expects from students or what obligations the public education system has to the lowest and highest achievers. In addition, policy makers must decide what part of student achievement is the schools' responsibility and what factors, such as student poverty, are beyond schools' control or outside their charge.

The second step is to identify the components of an adequate public education system. This is not a cut-and-dried process because the effectiveness of various education reforms, initiatives, and expenditures can vary dramatically based on local circumstances. In other words, what works in one setting may work less well or not at all in another. That said, research and practice do point to certain things as essential to effective schooling.

For example, research findings from a wide variety of sources suggest that putting resources into improving educator qualifications—building the capacity of educators—pays off in terms of student performance. This includes the quality of preparation, the rigor of certification practices, the quantity and quality of professional development opportunities, and salary levels high enough to attract and retain the best and brightest in the education profession.

Finally, decision makers must determine how much money is enough to make possible the system they envision. On the theoretical side, the hard link between the allocation of money and specific student outcomes has remained elusive. Funds used the same way in two different schools or districts yield different levels of improvement in student achievement. Such results illustrate that money is only one among a host of factors that affect the success of an education initiative. The effects of intangibles—such as school culture, existing school policies or programs, and educators' skill in implementing the new program—are difficult to quantify.

In an attempt to account for these and other factors, researchers and policy makers throughout the United States have used various methods to try to more broadly determine how much money is enough. Places as diverse as New York, New Jersey, Ohio, Kentucky, and Wyoming all have experiences from which California could learn.

These states have discovered that there is not an ideal strategy for determining adequate funding. And researchers uniformly caution that the work takes time, commitment, and thoughtful analysis.

California needs to align its school finance system with its expectations

California has raised its expectations for student achievement and thus for its public school system. It has also instituted a high-stakes accountability program. Most experts agree that the capacity of the system needs to increase if those expectations are to be met. Additional funds may be integral to that capacity building.

Answering the question of how much funding is enough requires moving from a formula based on what is available to one that requires some consensus about what outcomes are desired from the system and agreement about the best way to try to get them. To be done well, that undertaking will have to bridge the concerns of many different interest groups. Ultimately, it may require dramatic changes in the status quo. That will take a strong political will, clear leadership, a coherent vision, and some time.
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