

School Resources and Academic Standards: What Do Principals Think?

In September 2002, the California legislature called for the creation of a Quality Education Commission and charged it with developing school prototypes—essentially, lists of school resources—such that the “vast majority” of California’s students could meet the state’s academic standards. The bill also directed the commission to send these prototypes to the legislature for use as school funding benchmarks. The link between school resources and academic outcomes is notoriously unclear, however, leading many policymakers and education experts to launch a review of funding priorities and practices. To help California policymakers with that review, PPIC began a three-part project funded by the William and Flora Hewlett Foundation to examine links among school resources, academic standards, and student outcomes. The first report, which appeared in October 2003, provided background information on the state’s academic standards, resource levels, and funding mechanisms.

The second report in that series, *School Budgets and Student Achievement in California: The Principal’s Perspective*, presents the results of school budget workshops attended by 45 principals from representative schools throughout the state. In those budget workshops, principals were given three budgets and asked to allocate resources (such as teachers, aides, librarians, and security staff) so as to maximize student performance at two schools—one with a more disadvantaged student body than the other. In addition to documenting resource allocation strategies, the report finds that principals associated higher funding levels and student socioeconomic status (SES) with better academic performance. The report also finds, however, that slightly more than half the principals thought that even with significantly higher budgets, the disadvantaged school would not meet the state’s rigorous academic standards.

The Budget Workshops

Because today’s principals are familiar with their student bodies, fiscal constraints, and the state’s recently established academic goals, the PPIC research team chose to elicit their judgments about links between resources and performance levels. In particular, the workshops asked principals to allocate

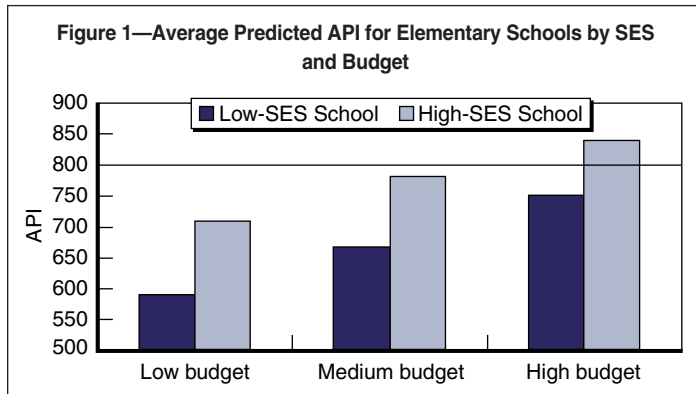
resources to maximize their scores on the state’s Academic Performance Index (API). The principals then repeated the exercise with budgets that were 15 percent and 30 percent higher. The low budget reflected resource levels in California schools in 1999–2000, whereas the high budget was comparable to that in Michigan schools, which ranked tenth in the nation in per-pupil spending that school year. Working independently, each principal created six models: three for the disadvantaged school and three for the better-off one. At the end of each exercise, the principals predicted the API score of the school they had constructed.

The report notes several advantages to this research design. By attaching prices to school inputs and then asking principals to make tradeoffs under realistic budget scenarios, this approach offers a useful way to distinguish needs from desires. It also asks principals to predict API scores for each school, thereby revealing the relative value of each resource at each type of school as the budgets increase. Finally, this approach holds all other factors constant, thereby allowing the research team to assume that the results reflect the perceived values of the individual resources and not the influences of unobservable factors.

Key Results

The budget workshops gave elementary school principals the resources to reduce class size but removed the real-world financial incentives for doing so in grades K–3. On average, principals chose smaller classes for these grades, even in the low-budget scenario, but they achieved a more even balance of class sizes across all primary grades. In the low-budget, low-SES scenario, for example, principals created an average class size of 21.5 for grades K–3 and an average of 27.4 for grades 4 and 5. As their budgets grew, elementary school principals allocated the largest share of the additional funds to student support programs. Forty percent went to such programs as after-school tutoring, preschool, and full-day kindergarten. As budgets increased, the general allocation patterns of additional funds were similar for both low-SES and high-SES schools. Elementary school principals predicted that API scores for

these schools would vary directly with budget levels and the school's SES. With the low budget, principals predicted that the high-SES school would achieve an API of 708, about 120 points higher than the low-SES school with the same budget (Figure 1).



On average, elementary school principals predicted that only the high-SES, high-budget school would reach the state's academic standard of an 800 API. The same pattern held for middle school and high school principals

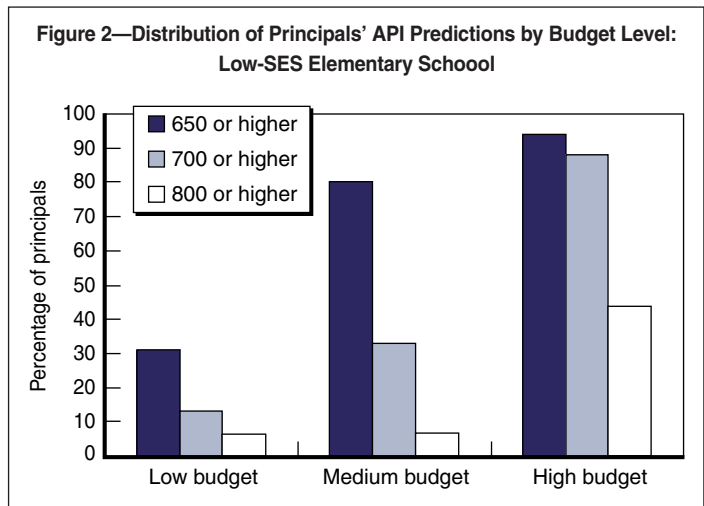
Unlike their elementary school colleagues, middle school principals chose high average class sizes in the low-budget scenario and then reduced class sizes as their budgets grew. Larger classes allowed these principals to hire more counselors and security officers. The middle school principals also predicted that API scores would vary by budget level and student SES, but their average predictions were less optimistic than those of their elementary and high school counterparts. On average, none of the budgets led to an 800 API in the low-SES middle school. To reach a predicted API of 750, that school required 30 percent more funding than the high-SES school—the full difference between the low budget and the high one.

High school principals purchased at least 30 percent more professional development time for their teachers than did middle school principals. Their comments also reflected a greater emphasis on teacher quality than on smaller classes or other strategies to boost student performance. High school principals allocated significant resources to counseling as well, reducing the student-counselor ratio to 300 to 1 in the high-budget scenario. (Ratios of 500 to 1 are common in California high schools.) In addition, they hired close to three security officers regardless of the budget level, suggesting that adequate security has become an absolute requirement for high schools. Like their colleagues, the high school principals, on average, predicted that only the high-budget, high-SES school could attain an API of 800.

Policy Implications

Even in a highly controlled budget simulation, resource allocations and API predictions differed somewhat. As a consequence, the workshop results do not point to specific bundles of resources that would ensure specific performance levels at any school or budget level. The average responses, however, offer tangible and whole representations of what certain funding levels might buy and how they might affect student performance. The authors note that even if resource decisions varied across schools, these representations could help satisfy the legislature's request for funding benchmarks.

With these findings in mind, the authors suggest that the Quality Education Commission provide the legislature with model schools at several resource and SES levels. The commission could include the likelihood that each model school would achieve various API scores, including the goal of 800 (see Figure 2). Including these likelihoods, the authors note, better reflects the inherent uncertainty surrounding links between school funding and performance.



In the low-budget scenario, 6 percent of principals predicted that the low-SES school would reach an API of 800. In the high-budget scenario, that figure rose to 44 percent

In conclusion, the authors note that the results of the budget workshops refocus attention on a basic question: Which resources do various kinds of California schools need to be successful? The authors also maintain that this fundamental question is obscured by the current school finance system, which is based on state budget formulas and categorical programs that do not always reflect the needs, costs, and academic challenges of real schools.

This research brief summarizes a report by Heather Rose, Jon Sonstelie, and Peter Richardson, School Budgets and Student Achievement in California: The Principal's Perspective (2004, 136 pp., \$12.00, ISBN 1-58213-098-1). The report may be ordered by phone at (800) 232-5343 [U.S. mainland] or (415) 291-4400 [Canada, Hawaii, overseas]. A copy of the full text is also available on the Internet (www.ppic.org). The Public Policy Institute of California is a private, nonprofit organization dedicated to independent, objective, nonpartisan research on economic, social, and political issues affecting California.