

SIMILAR STUDENTS, DIFFERENT RESULTS:

Why Do Some Schools Do Better?

The summary report from a large-scale survey of California elementary schools serving low-income students

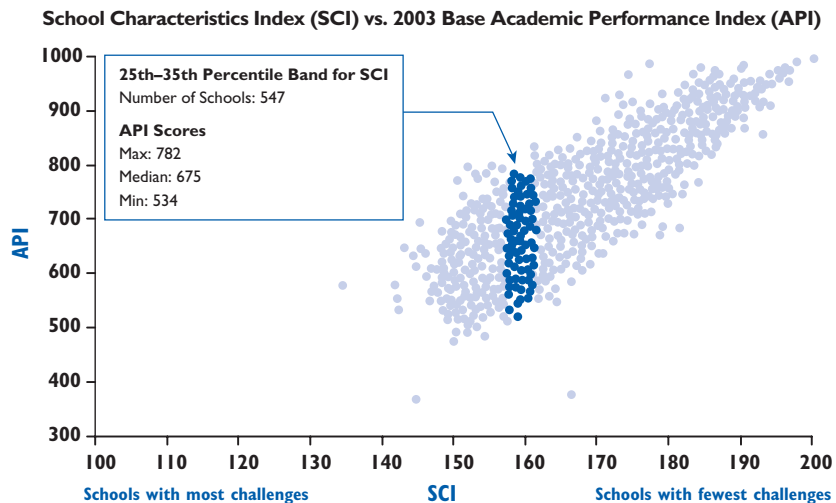
Some people say that you can predict the performance of a California school based on its zip code. It is true that parent education and socioeconomic level—and a student’s proficiency in English—are important to students’ academic success. But school and district practices and policies contribute as well.

Among schools that serve roughly the same kinds of students in California, a large and consistent gap in academic performance exists. This gap can be as much as 250 points on the 200-to-1000 scale of the Academic Performance Index (API), the state’s primary accountability measure. That observation prompted a two-year collaborative research project overseen by EdSource. The study looked at factors that might explain that gap in API scores, focusing on a subset of California elementary schools serving largely low-income students. The goal was to determine which current K–5 practices and policies are most strongly associated with the higher levels of student performance some schools achieve.

The research question: What accounts for the difference in API performance among schools that serve similar students?

As this chart shows, Academic Performance Index (API) scores for California elementary schools facing similar challenges (as indicated by the School Characteristics Index or SCI) regularly vary by as much as 250 points. The central research question for this study was: What school factors might explain this variance?

The study looked at a relatively narrow band of elementary schools to control for student characteristics. We chose schools that fell between the 25th and 35th percentile on the SCI. As a group, those schools tended to have higher-than-average percentages of students who are English learners, who are from low-income families, and whose parents are not high school graduates.



DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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About this Summary Report

This EdSource report summarizes the *Initial Findings* issued in October 2005 from a two-year study conducted by EdSource, Stanford University, University of California–Berkeley, and American Institutes for Research (AIR). In addition, this report includes information collected during the study but not previously reported (from superintendent interviews and principal open-ended questions) as well as the results of an additional analysis conducted on curriculum program choice and association with Academic Performance Index (API) scores. While the official study findings were the work of the entire team, EdSource takes full responsibility for the contents of this summary and for any errors or misinterpretations it may contain.

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AMERICAN INSTITUTES FOR RESEARCH

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And thanks to Reed Hastings, CEO of Netflix, for posing an important research question and then providing the financial support that allowed the research team to conduct this independent study to find some answers.

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School practices can make a difference in the achievement of low-income students 20

In 2005 principals from 257 California elementary schools—and more than 5,500 teachers from those schools—completed surveys that asked about a wide range of classroom, school, and district practices. The survey included 350–400 items that were grouped into broader domains that reflected existing research about effective schools and districts. Each represented a group of specific behaviors thought to affect student performance. The schools in turn were grouped into high-, medium-, and low-scoring categories based on their API. Their answers were compared using a statistical method designed to isolate the effect of the various domains of teacher, principal, and school district practice.

The study found that four specific domains, or clusters of practices, were most strongly correlated with higher school API scores: 1) prioritizing student achievement; 2) implementing a coherent, standards-based instructional program; 3) using assessment data to improve student achievement and instruction; and 4) ensuring the availability of instructional resources. The remaining three domains examined—involving and supporting parents, encouraging teacher collaboration and professional development, and enforcing high expectations for student behavior—had much weaker but still positive correlations with school performance.

The four “effective schools” domains did not operate independently but tended to occur together in the same school. Therefore, a central message of the study is that no single action, or even category of actions, can alone provide a clear advantage related to student performance. Rather, schools that have, on average, higher API scores also report more strongly that they implement these multiple, related practices.

The study also strongly suggests that performance is higher in schools in which the actions of teachers, principals, and school district officials are all closely aligned and tightly focused on student achievement. Responses from school principals to an open-ended survey question and interviews with 20

About the Schools and Districts in this Study

- There were 550 schools with a School Characteristics Index (SCI) that fell between the 25th and 35th percentiles. The schools in the study were a representative sample from this band, with both school and student characteristics roughly similar to those not included in the study.
- The 257 schools that participated in this study came from 145 different school districts, and 56 of those districts had more than one school participate.
- About a third of the districts and more than 40% of the schools were located in the Los Angeles metropolitan area (including San Bernardino and Riverside), with the remainder of schools and districts distributed across the rest of Southern California, the Central Valley, and Northern California.
- A third of the schools were in elementary districts, 15% operated on year-round calendars, and 98% received Title I funding.
- In the sample, 31% of students had parents who were not high school graduates, compared to 21% of elementary students in the state as a whole.
- Comparisons of other student characteristics associated with student achievement are similar. Statewide, California's elementary school population in 2004–05 included 32% English learners, 50% Hispanics/Latinos, 8% African Americans, 29% whites, 8% Asians, and 57% low-income students (based on participation in the free and reduced-priced meal program). The schools in this study had higher proportions of English learners, Hispanics, and low-income students. Their total student population included 42% English learners, 66% Hispanics, 8% African Americans, 15% whites, 6% Asians, and 78% low-income students. These percentages varied from school to school.
- The 2005 Growth API for the average school participating in the study was 702, with a range from 569 to 821.
- On the statewide rankings from 1 to 10 for 2004 Base API, none of the sample schools ranked 10, and just 4% ranked 7 or higher. Conversely, 7% were ranked in the bottom decile. The remaining 89% of schools ranked from 2–6, with the majority a 3 or 4.

superintendents helped to illuminate this dynamic.

The *Similar Students, Different Results* study was a collaborative effort of EdSource, Stanford University, University of California–Berkeley, and the American Institutes for Research (AIR). Initial findings were released in October 2005. Comprehensive materials, including those and subsequent findings released in April 2006, are available online at: www.edsource.org/pub_abs_simstu05.cfm

This summary report describes the work of the entire team and draws heavily on the collective work of other

team members. However, EdSource takes full responsibility for its final form and any inaccuracies or misrepresentations it might contain. Along with a brief description of the research project itself, this summary provides an overview of the initial research findings as well as material released since, placing them within the context of California's standards-based reform efforts. It also looks at how state and federal policies related to student performance appear to be playing out in elementary schools serving low-income students and explores some possible implications for state policy-

makers, local school district leaders, and educators at elementary schools throughout California.

What we hoped to learn

From its inception, this study was designed to look at which “effective schools” practices previously identified in literature might make the most difference in school performance under standards-based reform in California. That required examining a wide breadth of topics across multiple levels of the education system, including classrooms, schools, and districts. Given such an ambitious approach to the topics to be studied, we decided to focus our analysis at the school level. We also limited the study to elementary schools, and further, to those that served largely low-income students and faced similar levels of challenge.

The state's School Characteristics Index (SCI) proved useful for identifying similar schools in terms of the students that they served. The band of about 550 schools in the 25th–35th percentile range on the SCI in 2003–04 thus became the subject of this study. Most of the schools in that group serve high numbers of low-income and English learner students, and many have high percentages of Hispanic/Latino and/or African American populations. (See the box on this page that explains the characteristics of the schools in the study.)

Almost half of the schools in the band participated in the study, with the principal and at least 80% of the K–5 classroom teachers at the vast majority of schools returning surveys. In total, 257 principals and more than 5,500 teachers participated by responding to 350–400 survey items on a multitude of school and district practices.

The survey content was first based on a review of the research literature

Aspects of California's accountability system relate to this study

California Standards Tests (CSTs) and CAT/6

California's state assessment system annually tests all students in grades 2-11. At the center of the system are the California Standards Tests (CSTs). At the elementary level, the CSTs are primarily based on the state's academic content standards in English language arts and math. The state also administers a nationally normed achievement test, the California Achievement Tests, Sixth Edition Survey (CAT/6) at grades 3 and 7.

The Academic Performance Index (API)

The state uses the CSTs to determine whether schools and districts have met targets for adequate yearly progress (AYP) as required by the No Child Left Behind Act (NCLB). In addition, they are used to calculate each school's API (with, to a much lesser degree, CAT/6 test results).

The API is the cornerstone of California's school accountability system. With rare exceptions, every school in California is assigned an API score between 200 and 1000 and also receives a score for each "numerically significant" subgroup of students, categorized by ethnicity and socioeconomic factors (such as poverty).

A school's API score is used to rank it statewide among all schools of the same type (elementary, middle, and high) and to compare it to the 100 schools most like it in terms of student background and other relevant factors. The state uses the School Characteristics Index (described below) for this purpose. The state also gives each school a growth target for improving its API.

For this study, the research team chose the 2005 Growth API score as the dependent variable for measuring school performance. The results and findings were also analyzed against CST results averaged across grade levels in each school and against a weighted calculation of API score growth over three years. The results were similar in each case.

The School Characteristics Index (SCI)

The SCI enables state officials to directly compare schools that face a similar level of challenge. These comparisons result in "similar school rankings" that adjust for student and school characteristics most strongly correlated with test score performance.

At the time of this study, the student characteristics in the SCI included ethnicity, English learner status, length of school attendance at the current school (if less than a year), parent education level, and participation in free/reduced-priced meal programs. School characteristics in the SCI included participation in a multitrack, year-round schedule, average class sizes, and percentages of teachers with full and emergency credentials.

Of all these factors, parent education level is most strongly correlated with student performance. For that reason, it is given the greatest weight in the SCI calculation.

on effective schools and on high-performing, high-poverty schools. With that as the backdrop, the goal was to explore how the nature of elementary school practices in Califor-

nia was changing in response to standards-based reforms, particularly state and federal accountability policies. Further, we wanted to see how much those practices differed between

schools with high and low performance based on the state's API and to what extent various classroom, school, and district practices might correlate with performance.

We also were committed to asking about "actionable items"—clear and specific practices that other local educators could implement. The survey questions asked teachers about their practices in the classroom and schoolwide, and about the role of their principal. Principals reported on their management practices and priorities, on the effectiveness of the teachers in their schools, and on the policies, practices, and expectations of their school districts.

The survey questions covered a wide range of topic areas including school context, role of the principal and district, core instruction, instructional strategies, assessment and data, professional development, and the respondents' professional backgrounds. The surveys also asked specific questions about kindergarten and English Language Development (ELD) programs and instruction. (The actual survey instruments are posted on the EdSource website: www.edsource.org/pub_abs_simstu05.cfm)

While school-level performance, as measured by the API, was the focus of this study, we were interested in the broader context within which schools operate. We believed that the interrelationships between classroom, school, and district practices could help shed light on why some schools serving low-income children do so much better than others. To that end, we asked principals several questions about the role of the district. As a complement to the principal and teacher surveys, the research team also interviewed 20 school district superintendents from 17 districts throughout California. These success-

ful district leaders were asked to discuss the three most effective strategies their district employed to help improve student achievement at high-poverty schools. The box on this page describes the results of those interviews generally. More details about what superintendents said are scattered throughout this report.

Initial findings suggest that a combination of strategies is necessary

Education researchers who have looked at the impact of various school reforms on student achievement consistently come to at least one shared conclusion: instructional improvement is unlikely to result from a single policy or practice. This study's findings echo that important point but place it within the context of the state's standards-based reform agenda.

In the late 1990s, the state of California began implementing a set of reforms intended to improve student achievement. They were built on the ideas of high academic content standards, the measurement of performance using standardized tests, and public accountability for schools based on student test results. Taken together, those reforms appear to be affecting schools' instructional practices. For example, nearly 100% of the principals and 94% of the teachers surveyed reported that classroom instruction in their schools is guided by the state standards. Yet this study also makes it clear that the cumulative effect of the state's policies on school practices differs among schools. It also identifies at least some of the attitudes and activities that set higher-performing schools apart. And it reinforces the conclusion that improvement within that standards-based environment is correlated with the implementation of multiple educational practices. (See the box,



Superintendent interviews supplemented the school surveys

In addition to surveying principals and teachers, the research team interviewed 20 school district administrators regarding their district's most effective strategies for school improvement. The districts selected for interviews all had at least two schools participating in the larger study. Beyond that, they also either had at least one high- and one low-performing school, or they had a school with a state API rank of seven (the highest rank for this band of low-income schools).

During face-to-face or telephone interviews, we asked what three strategies the superintendents considered most effective in improving student achievement at schools serving high percentages of low-income students. They were also asked to describe how those strategies were implemented at the school level. In the course of these conversations, the interviewees often mentioned a number of strategies beyond their top three choices. The following list is based on those most often cited as effective, but also notes what proportion of all the superintendents mentioned each strategy:

1. Data and assessment: cited as a top strategy by nine respondents and mentioned by 19.
2. Professional development: cited as a top strategy by seven superintendents and mentioned by 15.
3. Curriculum package: cited as a top strategy by five superintendents and mentioned by 18.
4. Role of the principal: cited as a top strategy by three superintendents and mentioned by 18.
5. School culture/high expectations: cited as a top strategy by three superintendents and mentioned by 15.
6. Instruction: cited as a top strategy by three superintendents and mentioned by 13.

Conducted separately from the survey and analysis, these interviews were meant to provide additional understanding of the district context in which our sample schools operated. The information is qualitative in nature and does not represent a systematic examination of these districts or their practices.

Overview of the Research Process

Methodology

- Working from the 350–400 survey items asked of teachers and principals on separate surveys, the research team grouped sets of related practices and policies together into seven broad “effective schools” domains. For example, questions related to use of data were grouped together. Each domain was made up of several smaller clusters of related items or subdomains. In addition to running simple correlations between all survey items and school API, the team analyzed the relationship between API and each of these subdomains and domains.
- This study used multiple regression analyses—a statistical tool that identifies correlations among variables in large databases. It holds constant every variable except the ones being examined to show how those relate to each other. Student and school characteristics were included in this analysis.
- A full explanation of the research methodology used in this study is available at: www.edsource.org/pub_abs_simstu05.cfm

Interpreting the findings

- The study shows four domains that are most highly *correlated* with higher API scores: prioritizing student achievement, implementing a coherent, standards-based instructional program, using assessment data, and ensuring availability of instructional resources. That does not mean those domains have actually *caused* those higher scores. Rather, it indicates that schools that report more strongly that they have implemented more of the practices included in each of the four domains have, on average, higher API scores than schools that report fewer of the practices.
- The school practices associated with these four domains tend to occur together (i.e., schools high on one domain tended to be high on others).
- Practices reflected in the other three domains—while certainly important in building social capital and community at a school—did not show up as strongly in differentiating the lowest-performing schools from the highest in the study sample.

Prioritizing student achievement

This domain examined the importance schools and districts place on setting clear, high, and measurable expectations for student achievement. Several research studies over more than a decade have suggested that communicating such expectations has a positive effect. Some of that research has particularly focused on high-performing, high-poverty schools. Common characteristics among those schools often include high expectations communicated in concrete ways and established systems to assess regularly the progress of individual students.

This study asked both teachers and principals about the extent to which their school and district communicated high expectations and took responsibility for student achievement. It also asked about the degree of priority given by teachers, the principal, and the district to meeting API and federal adequate yearly progress (AYP) targets for subgroups of students (such as by race/ethnicity and income level).

Survey results showed that the schools with teachers and principals who indicated higher expectations for students had, on average, higher API scores than similar schools with lower reported expectations. One aspect of this is a shared culture within the school regarding the value of improving student achievement and a sense of shared responsibility for it. The responses in this category included teachers and principals reporting that their school has a vision focused on student-learning outcomes and that teachers take responsibility for and are committed to improving student achievement.

Principal behaviors are also noteworthy. Teachers and principals in high-achieving schools were more likely to report that the principal communicates a clear vision for the

Teachers have opened themselves up to learning from each other, sharing ideas, and expressing their need for more training to teach English learners, Special Education, and high-needs students. The communication is open, honest, and respectful.

—A school principal

Overview of the Research Process, on this page to understand how the analysis was done.)

Within our sample of elementary schools, certain “effective schools” domains proved to be significant in distinguishing the responses of teachers and principals in the highest-performing schools from those in the

lowest-performing. Those included:

- Prioritizing student achievement;
- Implementing a coherent, standards-based instructional program;
- Using assessment data to improve student achievement and instruction; and
- Ensuring availability of instructional resources.

school, sets high standards for student learning, and makes expectations clear to teachers for meeting academic achievement goals.

The practices in this domain go beyond a shared culture, however, to specific expectations. Both teachers and principals at higher-performing schools reported that their school has well-defined plans for instructional improvement and that they make meeting the state's API goals and the No Child Left Behind AYP goals a priority. And they reported that their schools set measurable goals for exceeding API growth targets for student subgroups. These principals also indicated that their school's statewide and similar schools rankings on the API influence schoolwide instructional priorities, and they reported that they are clear about their district's expectations for meeting API and AYP growth and subgroup targets.

Implementing a coherent, standards-based instructional program

This domain looked at the extent to which a school's curriculum and instruction are both coherent and aligned with state standards. The survey focused on the core areas of mathematics and English language arts. Teachers answered questions about the amount of time spent on each subject, the extent to which the two core subjects are protected from interruption, and whether math and

language arts are integrated with other subjects. They also indicated which English and math curriculum packages they used in their own classrooms and how frequently they used those packages. And teachers answered questions about alignment and consistency in curriculum and instruction, planning, and materials. Principals answered questions about their practices and their perceptions about the school district's expectations related to curriculum coherence.

The findings regarding the value of a coherent, schoolwide curriculum program are consistent with previous research. Studies of this issue going back two decades repeatedly point to curriculum coherence within a school—and among school staff—as being correlated with higher student performance. (For additional background, see the To Learn More box on page 20.)

In this study, teachers who work in schools that on average performed better were more likely to report schoolwide instructional consistency within grades and curricular alignment from grade-to-grade. The kinds of practices teachers reported using included examining the scope and sequence of curriculum topics and reviewing a grade-level pacing calendar that sets out a timeline for instruction.

Alignment with state academic standards also appears to be reported more often by teachers in schools that

I think the answer lies in the personnel: I mean the principal and the teachers doing what they need to do for children, using the data, implementing the programs. I use the word 'relentless' a lot. They've got to be relentless about not accepting anything but learning from the children. They're not going to let the children fail; they're going to make them learn.

— A superintendent



superintendents say:

High expectations are part of a district culture.

Of the 20 superintendents interviewed, three cited the establishment of clear, high expectations as one of the most important factors in improving student achievement over the last four years, and 12 more at least mentioned this as a strategy their district had used. Several superintendents spoke not only of the relationship between student achievement and a school's culture of high expectations, but also about the importance of holding principals and teachers responsible for meeting high standards. As one superintendent put it: "While we were raising expectations for children, we were raising expectations for the adults."

Another superintendent described the challenges school staffs faced in this process and the extent to which the process changed some fundamental assumptions on the part of adults. "We had to really learn to accept that we were maybe dumbing down. We were teaching to the lowest student. It was a tough beginning, but teachers after a while began to accept that and say, 'OK, I can't keep them here. I have to move on. Then what instructionally do I need to do? What strategies work?'"

In one district, a key part of their strategic planning process was gaining broad-based buy-in for reforms. The superintendent noted that the plan—which held everyone responsible for improving student achievement—had "a clear expectation that starts very much at the top."

Another district established a "superintendent's advisory council," made up of "key teachers and administrators from all the schools." Monthly meetings improved the district's understanding of how strategies and policies were being implemented inside classrooms as well as what support and development teachers and principals needed. They also helped the district build a sense of community in which everyone participated in the conversation regarding student achievement.



superintendents say:

A districtwide curriculum adoption is important, but implementation varies.

Overall, 18 superintendents out of 20 mentioned the use of a curriculum package as a strategy they used to improve student achievement. Five ranked this among their most important strategies.

Several district superintendents said that curriculum programs ensured instructional consistency in their schools. As one noted: “In the past, every single school could have a different instructional program for language arts. Some taught phonics, some didn’t; some used whole language, some didn’t.”

Another administrator said that prior to the implementation of its new curriculum program, the district was “less than organized or effective in providing a comprehensive, consistent reading program to our students. It was probably far too hit-and-miss, depending on teachers and schools.”

The superintendents’ comments also conveyed a tension between strict adherence to a curriculum program and adapting instruction to meet student needs. Some emphasized their belief that uniform implementation was crucial. Others supported giving teachers some flexibility and described how that had occurred in a deliberate way. For some districts, pacing plans were a key strategy, giving the district an effective way to monitor and assess how teachers implement specific curriculum strategies to develop specific student skills. Here too, however, districts seemed to differ in their use and reliance on a pacing plan and on the extent to which they altered that plan based on school-level feedback.

[W]e adopted one language arts program for K-8, and that was a major accomplishment... Plus, if the district has common expectations...uses a common textbook and common assessments, you can design professional development for everybody.

—A superintendent

are, on average, higher-performing. This includes classroom instruction being guided by state academic standards and schools having identified essential standards. Teachers also report that the school’s curriculum materials in math and English are aligned with state standards and that they frequently map state curriculum standards onto their classroom lesson plans.

District actions, as reported by both teachers and principals, also appear to have some relationship to student performance. For example, teachers at higher-performing schools more often report that their district addresses the instructional needs of English learners at their school. Principals who reported a strong district role in this domain are also from higher-performing elementary schools. These principals said the district has a coherent, grade-by-grade curriculum for all schools and expects the principal to ensure implementation of the curriculum. These principals report that the district has clear expectations for student performance aligned with the adopted curriculum and that it evaluates the principal based on the extent to which instruction in the school also aligns.

Using assessment data to improve student achievement and instruction

The use of data by teachers, principals, and districts was perhaps the most intensively examined domain in our study, at least in terms of the number of survey questions. Under the general topic of data and assess-

ment, questions addressed the types of assessment data teachers and principals received, as well as how they used these data. We categorized the types of assessments as follows:

- CST and CAT/6 assessment data, the state’s standardized tests administered each spring.
- CELDT (California English Language Development Test), an annual assessment of English learners.
- Curriculum program assessments.
- District-developed assessments.
- Other commercial assessments.
- Assessments created by individuals in a school.

Teachers’ responses were organized based on 1) the frequency with which they reviewed assessment data generally, and 2) the extent to which they used the specific data types to monitor student performance and inform their instruction.

The analysis of principals’ responses reflected different questions, including their use of specific types of assessments and the extent to which they used each type to monitor achievement, address student progress, inform schoolwide instructional strategies, and monitor and evaluate teacher instructional practices. Principals were also asked about the influence of district expectations for improving student achievement, and about incentives and activities specifically targeted at raising CST and CAT/6 scores.

Both principals and teachers also responded to a set of questions about the extent to which they addressed student achievement by subgroup.

A substantial amount of research on the use of assessment data—and its relationship to student achievement—has been conducted since 2000. Much of this work has focused on implementation issues related to high-stakes testing and on teachers' use of data to inform their instruction.

This study, by contrast, shed more light on how principals and school district officials are using student assessment data. One practice that showed a strong positive correlation with API scores among our sample of elementary schools was the extensive use of student assessment data by the district and the principal in an effort to improve instruction and student learning. As an example, principals from better-performing schools more often reported that they and the district use assessment data from multiple sources—curriculum program and other commercial assessments, district-developed assessments, and the CSTs and CAT/6—to evaluate teachers' practices and to identify teachers who need instructional improvement. They also reported frequently and personally using assessment data to address the academic needs of students in their schools, including using this data to develop strategies to help selected students reach goals and to follow up on their progress. In addition, they review this data frequently both independently and with individual teachers.

These same principals reported a clear understanding of their district's expectations for improving student achievement. They said that their districts expect that all schools will improve student achievement and evaluate principals based upon that. The principals reported that the district also provides support for site-level planning related to improving achievement.

Findings on use of curriculum packages prompt extended analysis

One of the strongest initial findings in this study was a correlation between a school's API score and having a coherent curriculum and instructional program. Among the questions teachers were asked was one regarding which curriculum programs they use in their classroom and how often. When the data were analyzed, it appeared that the choice of curriculum program correlated with API.

An extended regression analysis again held constant for student demographics and included a more specific definition of intensity of usage. That analysis found that for English language arts, using the Open Court curriculum program schoolwide appeared to distinguish between higher- and lower-performing schools.* The analysis found that while high-intensity use of Open Court mattered (i.e., all teachers in the school reported using Open Court daily), not all schools using Open Court intensively were higher-performing. Open Court appeared to be most effective when it was:

- combined with a coherent, schoolwide, standards-based instructional program; and
- combined with the frequent use of student assessment data to improve instruction.

Open Court is one of two main English language arts curriculum packages currently approved by the State Board of Education. It was used as the primary English curriculum program by only one-fourth (72) of the schools in the study's sample. But in 80% of those 72 schools, all teachers in the school reported using it daily. Most of the remaining schools in the sample said they used Houghton Mifflin for reading, with about two-thirds classified as high-intensity users but just one-third having all teachers reporting daily use. Some schools using Houghton Mifflin were also among the highest-performing.

Teachers were also asked about the math curriculum that they used. In our sample, several different math curriculum programs appear to be in use, and relatively small percentages of teachers report using any one program daily. The analysis did not establish an association between the use of a specific math program and school API.

*EdSource is not affiliated in any way with any particular publisher. Neither EdSource nor this study in any way endorses one particular curriculum program over another, or one publisher over another.

We moved to a standards-based curriculum with assessments tied to our report card. This led to pacing schedules, structured conversations about instructional strategies and student performances, and targeted achievement goals for the entire school, classrooms, and individual students.

—A principal

In schools where assessment data from the CSTs and CAT/6 influence schoolwide attention to improving student achievement, the API score also tends to be higher. Teachers in these schools reported receiving CST and CAT/6 test data in a variety of formats: for all students in their grade

level; disaggregated by specific skills for all students in their classrooms; and disaggregated by student subgroup for students in their classrooms. Principals reported using the CST and CAT/6 data for the following purposes:

- To examine schoolwide instructional issues;



superintendents say:

Districts have developed expertise at using assessment data to improve student achievement and instruction.”

All but one of the 20 superintendents interviewed mentioned “use of data and assessment” in explaining their strategies to improve student achievement. Nine saw it as one of the most important strategies they had implemented over the last four years. Several said they had created data analysis positions and hired additional personnel to help school staffs understand and apply assessment results. For the most part, however, these superintendent comments did not focus on the evaluative or summative assessment data provided through the state testing system, but rather on formative assessments—tests used to evaluate ongoing student progress and inform classroom instruction.

One superintendent described how the strong principals in the district worked with teachers to analyze the results of reading assessments given every six weeks. The principals sit down with grade-level teams of teachers to analyze how their students did collectively and individually. The goal is not to accuse anyone but to look at what can be learned from students’ performance. The teachers whose students do well on one skill or another share the practices that seem to be successful.

Another superintendent described a process, adopted from other research, that uses a “pyramid of intervention. ...You ask three critical questions: What has the student learned? How do I know that the student has learned it? And what do I do if the student hasn’t learned it? That basically focuses our district’s whole instructional program. What it means is that you make data-driven instructional decisions.”

Many of these district officials placed particular emphasis on the ways that principals, and by extension teachers, evaluated and worked with student subgroup data. Some said their district had provided specific professional development for principals toward that end.

When we’ve gotten negative data, we have started being transparent about it and kind of really publicizing it... folks actually respect the fact that we’re out front and open.

—A superintendent

I’ve met individually and by grade level with teachers to review data, conduct professional conversations based on student data, and set instructional priorities.

—A principal

- To develop strategies for moving students from “below basic” and “basic” to “proficient”;
- To compare grades within the school;
- To identify struggling students and evaluate their progress; and
- To inform and communicate with parents.

(Note that test performance levels are labeled “far below basic, below basic, basic, proficient, and advanced,” with the statewide goal of all students achieving at least “proficient” in each subject tested.)

Ensuring the availability of instructional resources

School-level financial data are not available in California. As a result, the study could not look at financial records, such as expenditures, as part of its examination of schools’ instructional resources. Instead, we defined “resources” broadly to include personnel, their qualifications, and the availability of decent facilities and adequate textbooks.

This research domain included survey data on the credentials and experience of educators plus teachers’ responses on the availability of classroom materials. We also considered principals’ perceptions of a number of different types of resources, including most notably the skills, knowledge, and attitudes of the teaching staff at the school. Principals were also asked about the extent to which the district

provides support for facilities and instructional materials, any provision of longer school day or year, and the school’s access to qualified support personnel.

Most education experts agree that teacher quality is central to student achievement. However, researchers exploring this question struggle with how to define teacher quality, often settling for those attributes most easily measured, namely teachers’ years of experience and credentials. Those aspects of teacher quality were among the factors examined in this study. The findings indicate that the schools where more teachers reported having regular or standard certificates for California also had, on average, higher API scores. Years of educator experience also mattered. Teachers from schools with higher APIs were more likely to have at least five years of full-time teaching experience. Principals’ years of experience also correlated with higher school achievement.

For another perspective on teacher quality, the survey asked principals to indicate the extent to which their school’s teaching staff possessed some less often measured and less easily quantified characteristics. API performance was on average higher in the schools where principals reported that a larger proportion of their teaching staff had the following qualities (the most significant ones are listed first and so on):

- demonstrated ability to raise student achievement,

- strong content knowledge,
- good fit with the school culture,
- training in curriculum programs,
- ability to map curriculum standards to instruction,
- supportive of colleagues' learning and improvement,
- able to use data from student assessments,
- familiar with the school community,
- excited about teaching, and
- familiar with state standards.

Principals responded to a variety of other questions related to the resources their district makes available to their school. Those more likely to be from high-performing schools more often

lated with API scores, were not nearly as strong as the other four domains in differentiating lower- from higher-performing schools. Interestingly, these three share a common thread—they are all domains that tend to contribute to the social capital at a school, the positive interactions between students, teachers, parents, and principals that help a school create a sense of community. These things are clearly important to supporting a positive learning environment, but this study suggests that they are less powerful in explaining what the higher-performing schools do differently from the lower-performing ones.

Our district supported significant staff changes at our school through transfer, resignation, and retirement.

—A principal

said their districts ensure that the school has up-to-date instructional materials, support to provide supplementary instruction for struggling students, and enough instructional materials for all students. The same was true for teachers who tended to confirm these perceptions, reporting that every student in their classroom has a copy of the current version of the textbook in language arts and math and that the principal ensures that the teachers have adequate classroom materials. The principals also reported a strong understanding of what their district expected from them in terms of facilities upkeep and management and that their district provided adequate support in the area of facilities management.

Three additional domains showed weaker correlations with API

The study included three additional domains that, while positively corre-

Enforcing high expectations for student behavior

A substantial body of research since 1990 has characterized a positive school climate as a basic building block for school effectiveness, particularly in high-performing, high-poverty schools. An important component of that is an ordered and disciplined environment. More recently some researchers have highlighted the vital role the school principal plays in this regard.

In this research study, the examination of order and discipline was limited to questions about the school's establishment and enforcement of policies related to student behavior. Both principals and teachers reported on the extent to which the school created an orderly and positive environment for student learning, including such areas as attendance policies, enforcement of rules, and respect for cultural differences. A



superintendents say:

Principal leadership and management are keys to building a strong teaching staff at a school.

The superintendents interviewed spoke at length about the relationship between an effective principal and the quality of teaching that occurs at a school. In particular, they connected the attributes of the school leader to the type of staff they are able to develop at a school.

One official said the district looked for principals who “knew instruction and knew how to facilitate reform, but could do it while sustaining relationships with their staff.” As another noted, while “knowledge of instruction” is essential, principals also have to “be able to motivate staff. They have to be able to get staff on board. They have to be strong enough to monitor and make the tough calls and to correct where they need to.”

Several superintendents remarked that their most effective principals frequently spent time in classrooms working directly with teachers. To improve instruction, principals must spend “a great deal of time observing, monitoring, giving feedback so that they can really be responsive to the needs of our teachers,” according to one official. Yet effective principals do not need to be dictatorial. Instead they “evaluate their own practice and lead discussions about their practice in an evaluative way for continuous learning and continuous improvement rather than blame.”

We make it extremely difficult to get a job here. We say we're going to see 1,000 teachers to find 100, and we do. We're going to be very, very picky because we know that's what makes a difference.

—A superintendent

simple tabulation of the survey responses as a whole shows that the respondents, and particularly the principals, were predominantly positive on these questions. Depending on the question, between 70% and 90% of teachers and more than 90% of principals agreed that each was effectively in place at their schools.

Because this study was looking for the practices that differentiate high- from low-performing schools, this relative unanimity could explain why this domain did not show up strongly in the analysis. The responses suggest that high expectations for student behavior are important at most of the schools in the study, regardless of their academic performance.

Involving and supporting parents

Parent involvement has also been seen by at least some researchers as a necessary but not sufficient component of effective schools. Measuring this particular aspect of schooling, however, requires clearly defining which aspects of parent involvement are of interest. For example, volunteering at school and helping with homework are both aspects of parent involvement, but each is measured differently and has a different relationship to student achievement. Some recent research indicates that involving parents in student learning is particularly important for student achievement.

For this study, the domain related to involving parents included subdomains that looked broadly at just two aspects of this complex subject: the school's active engagement with

parents and its support of parents and families. The 29 questions included in the surveys did not ask about numbers of parents involved or the number of hours they volunteered. Instead, teachers were asked about: 1) their practices involving parents in students' education; 2) the district's success in building the community's confidence in the school; and 3) the principal's relationship with parents.

Principal questions were more comprehensive. They included the extent to which the school: 1) involved parents in students' education through mechanisms such as parent-teacher conferences, schoolwide events, and translators for non-English speaking parents; 2) worked to engage parents in schoolwide decisions and activities; and 3) provided support services to parents and families, including English as a Second Language (ESL) classes, health services, and assistance programs.

For the elementary schools in our sample, all of which serve low-income families, practices designed to involve the parents in their children's education were more positively correlated with higher school performance than were other efforts to include parents. Examples of these practices were the frequency of special subject-area events (like math or English language arts workshops) held at a school and the frequency with which parents provided instructional support in classrooms.

More generally, a positive correlation also emerged for schools with teachers that reported most strongly that their district builds the commu-

nity's confidence in the school and their principal builds strong relationships with parents.

These findings may suggest that at schools serving low-income children and families, parent involvement strategies should be centered on the school's instructional program and the child's progress. This approach could be seen as naturally complementary to the four practices that correlated most positively with school performance. All four have student learning and academic achievement as their focus.

Encouraging teacher collaboration and providing professional development

This domain examined three different areas related to the professional environment in the school and looked at a wide range of activities by teachers, principals, and districts. The three areas were: 1) teacher collaboration and professionalism; 2) professional development; and 3) the hiring, evaluation, and firing of teachers. This area of questioning largely focused on how schools go about hiring and developing a capable teaching staff, while the resources domain noted above asked about the presence of capable teachers.

Research into the ways that teachers interact and the effect of that interaction on student learning goes back to at least the early 1980s. The body of research is complex, raising questions about both positive and negative aspects of teacher collaboration and the challenges involved in developing a professional community in which that interaction leads to improved student performance.

Within this study, the topics of teacher collaboration and professionalism were addressed with survey questions that looked at the extent to which teachers felt they had influence over schoolwide decisions. It also

asked teachers and principals about opportunities for teacher collaboration on curriculum and instruction, including for English learner students; their perceptions that teacher professionalism was supported and encouraged within the school and by the district; and the extent to which they experienced a continuous learning environment.

Much of the research regarding professional development, on the other hand, has largely focused on which program characteristics are most important in providing high-quality professional development that will lead to increased student achievement. Consistency and a focus on subject-matter content are often cited as particularly important. Most of this research has been done in the past decade.

The second strand in this domain related to the development of educator capacity through professional development. A particular focus of the survey was on the adequacy, influence, and value of a large number of different teacher professional development opportunities, including training linked to standards generally, specific curriculum programs, instructional strategies, the use of data to inform instruction, and noninstructional issues. Teachers were also asked about their participation in coaching and modeling activities. Principals answered questions about the professional development opportunities their district provided to teachers and to them personally, and the value they ascribed to the latter.

Finally, the study explored the principals' perspectives on the hiring, evaluation, and firing of the teaching staff at their school. Principals were asked about their district's success in building and maintaining a strong teaching staff and their own capacity to evaluate teacher performance. They

also answered questions about their ability to hire and remove teachers, including district and school factors that influence that ability.

Again, while this domain as a whole was positively correlated with API scores for the schools in the study, the relationship between professional development and API was relatively weak. This stands in contrast to the emphasis we heard in our interviews with the 20 superintendents. Many of them characterized professional development as a key strategy for instructional improvement. One possible explanation for this disconnect may be that the survey questions about professional development included in this domain were more general in nature rather than being closely aligned with the domains we found to be significant, such as use of data and instructional program implementation. Thus, they may not have captured the specific activities superintendents had in mind.

Another view of the findings reveals strong vertical alignment of expectations and accountability

Our research analysis examined the relationship of various "effective schools" practices to school API scores. Another way to look at the findings is to identify which actors at which levels of the system are involved in implementing each of these practices. While the focus of this study was at the school level, the results provided some evidence about the relationship between school district practices and school performance. The results also helped illuminate the changing role of the principal as the conduit between district and classroom and as a central player in the achievement of that vertical alignment.

It appears that in schools with higher APIs, both principals and teachers are more likely to report prac-



superintendents say:

Professional development is the key to changing classroom practice.

The superintendents we interviewed expressed a strong belief that their professional development efforts were central to their ability to translate the state's achievement goals into district expectations, school implementation, and ultimately to changes in classroom instruction. Overall, seven of the 20 superintendents cited professional development as a key strategy, and another eight mentioned it as something they had implemented.

Several superintendents saw professional development as significant for improving instruction and student achievement because it directly affected classroom teaching. One said that extensive professional development gave teachers "tool kits of strategies" that they "can pull out whenever they need it for whatever kind of lesson they're using."

Several districts used coaches to help drive professional development into the classroom. One superintendent mentioned training coaches on specific content, ensuring that they were able to "really get into the classrooms, work with grade-level teams, influence instruction, and assist teachers who aren't able to do the work." This district also "pulled [all coaches] out on a monthly basis for a full day of training" to help them meet teachers' needs. Another superintendent said that after moving to a new curriculum, the district used coaches to help teachers with various tasks, such as "pacing and building lesson plans" and creating lessons "centered around the learner."



superintendents say:

District practices and support can strengthen principal leadership.”

The superintendents placed substantial emphasis on school principals and their role, with 18 out of the 20 superintendents mentioning it. Three superintendents ranked principal leadership among the most important factors in improving student achievement over the last four years. They said that effective principals drove reform, held high expectations for student achievement, and provided instructional leadership and guidance.

Their remarks also revealed the influence of district practices on the way principals do their jobs. For example, several superintendents spoke of efforts to transform the role and responsibilities of the principal. One district had previously hired principals “based upon their operational knowledge and skills.” However, as demands of accountability required sharp improvements in student achievement, the district’s notion of an effective principal evolved. “[The principal has to] know instruction, ... lead instruction, and ... make sure that instruction is good in classrooms.” Another superintendent said principals were expected to have a clear “vision for their school. They have to have an idea of where [they] want to go by the end of the year and how to bring the school along as a learning organization.” Yet another noted that in order for principals to be effective, “they’ve got to know that their supervisor supports them and is there backing them up.”

District officials mentioned the value of principals acting as instructional leaders by knowing “what good instruction looks like and...what to expect.” Another official mentioned the role of the principal in ensuring that a “school’s instructional program [is] focused on those standards and the articulation between the standards and what happens in each classroom.”

tics that indicate: 1) strong district leadership and support aimed at improved student achievement; 2) a redefinition of principal leadership targeted at the evaluation and improvement of school and student progress; and 3) teachers who take responsibility for student achievement based on state standards. Taken together, these examples suggest a strong vertical alignment between the actions of district leaders, school principals, and classroom teachers. All appear to share similar high expectations for student performance and to collectively stress adult accountability for meeting those expectations.

The superintendent interviews further reinforced these general impressions. They also made clear the extent to which the selected districts, all of which had high-performing schools, were actively engaged in trying to improve both classroom practice and principal leadership through an alignment of expectations and practice.

While the study was not designed to directly examine the influence of district policies, principals at high-performing schools tended to perceive many aspects of their district’s role differently from principals at low-performing schools. Based on principals’ survey responses, it appears that districts may actively contribute to a higher API at these elementary schools in a variety of ways related to standards-based reform. Specifically, principals at high-performing schools said their districts were clear in their expectations that schools meet both the API and AYP growth targets for the school as a whole and for subgroups. They ensured that the school curricula in math and language arts were aligned with state standards and that instruction was focused on student achievement. Principal

responses also suggest that there may be a relationship between API performance and the extent to which the district provided schools with student achievement data and evaluated principal performance and teacher practices based on that data.

The *Initial Findings* also appear to reinforce a wealth of research that points to the school principal as the crucial actor in the effectiveness of a school. In general, researchers have found that schools with good leadership are more likely to have pervasive and sustained student learning. More specifically, research indicates that principals in effective schools use measurable goals to establish a culture of achievement, create a collective sense of responsibility for school improvement, and act as models of instructional leadership. In addition, they are persistent and innovative in obtaining resources to serve students.

Among the schools included in this study, API scores were generally higher in schools with principals whose responses indicate that they act as managers of school improvement, driving the reform process and cultivating a strong school vision. In particular, they were more likely to embrace the state’s academic standards and to ensure that classroom instruction was based on them. They prioritized meeting and exceeding state and federal accountability targets for school performance. In addition, they reported personally and extensively using student data for instructional management purposes— not only to evaluate the progress of students, but also to examine schoolwide and teacher practices, develop strategies to help selected students reach goals, and identify teachers who need instructional improvement. Finally, they ensured that teachers and students had adequate texts and classroom materials.

There isn't an elementary principal in this district who doesn't know what's expected of them, what their work plan needs to have, ... and what's going to happen when my deputy superintendent and I do tours of that campus. They know what we're looking for.

—A superintendent

Teachers in schools with higher APIs indicate that they are more likely to take responsibility for student achievement, again as achievement is defined by the state's academic standards. They report using the standards for guiding instruction and ensuring curriculum and instruction alignment within and across grades. They also say that they are well trained in standards-based instruction. These teachers are also more likely to receive data from the state's annual assessments (CSTs and CAT/6).

This study offers implications for policy and practice, including “staying the course” with standards-based reform

In the course of this study, EdSource and its research partners from Stanford University, UC–Berkeley, and American Institutes for Research gathered extensive data on the practices and policies of elementary schools in California that serve high numbers of low-income and English learner students. The goal of this effort was to identify the practices that set the highest-performing schools apart from the lowest-performing ones. Since the release of the *Initial Findings* in October 2005 and the further analysis on curriculum package choice in April 2006, many people have asked us to articulate more specifically the practices reported by these schools and the implications of our findings.

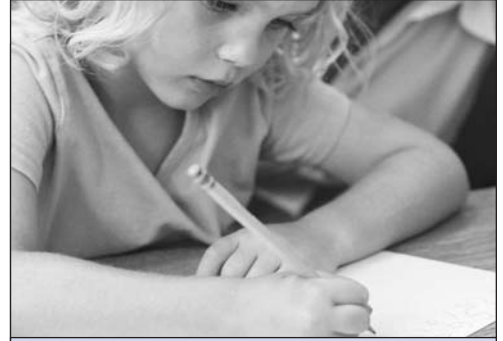
The first consideration in doing so is the larger policy context in which the elementary schools in our sample have been operating. The years since California adopted K–12 academic

content standards for its public schools in the late 1990s have been tumultuous and challenging for education leaders in schools, school districts, and state-level positions. Part of a national movement in school reform, the adoption of standards was a watershed event for California that paved the way for a new state assessment system and new methods of holding schools accountable based on those tests. These changes have taken time and have represented difficult work intellectually as well as politically.

The findings from this study indicate that many of the policies and practices that have accompanied standards-based reform in California are correlated with improvement in achievement at schools with high proportions of low-income students. We believe that the overarching message from the findings is that state policymakers and local educators need to stay the course in terms of explicit expectations for student achievement and a process of public accountability that keeps those expectations at the forefront of schools' efforts.

Aligning school and district instruction with the state's high expectations is a multifaceted challenge

For educators and local communities, a central message of the study is that school practices and policies can make a difference in the achievement of low-income students. Some schools clearly do a much better job of enabling their students to learn the state's grade-by-grade academic content standards than do other schools, regardless of



superintendents say:

Districts use professional development to align instruction with expectations.

In discussing professional development, the superintendents also reinforced the idea of vertical alignment. These superintendents characterized effective professional development as a strategy that starts with the district but has a tangible impact all the way down to the classroom. One mentioned the importance of professional development that was “extremely focused and sustained” at the “district level, at the principal level, at the teacher level, and at the paraprofessional levels.”

Another noted that a district needs to ensure that teachers are using programs “the way they were designed to be used; and if not, that’s a good place to start. Make sure that you go back and retrain your teachers. Oftentimes you adopt a new reading text, you do the publisher’s training, give them the book, and assume everybody’s using it the way it’s supposed to be. We found that is not the case.”

The superintendents also acknowledged the complexity of providing professional development that teachers were able to incorporate into their daily practice. Several said they adopted a “chain-of-command” approach with coaches, principals, and teachers. One district first provided professional development to principals and coaches, who were then responsible for “training the teachers in a meaningful way.” The district also trained district office administrators, ensuring that they were able to support and monitor the coaches’ work at the school to ensure implementation.

In schools with higher API scores, it is more likely:

All express a commitment to student achievement on the state's standards, coupled with specific practices to support that goal.

- School sets measurable goals for exceeding the mandated API student subgroup growth targets.
- School uses statewide and similar schools API rankings to influence instructional improvement.
- Teachers ensure that curriculum and instructional materials are aligned closely with state academic standards by frequently mapping those standards onto weekly lesson plans.
- Teachers ensure instructional consistency within grades by using a grade-level pacing calendar.
- Teachers ensure curricular alignment from grade to grade by examining the scope and sequence of curriculum topics.
- School uses curriculum programs that, among other qualities, support ease of teacher implementation of curriculum coherence.
- Principals and teachers have access to CST data in a variety of formats: for all students in their grade level; disaggregated by specific skills for all students in their classrooms; and disaggregated by student subgroup for students in their classrooms.
- Principals frequently review, discuss, and use student assessment data from multiple sources—annual CSTs, regular curriculum program diagnostic tests, teacher- and district-developed tests to:
 - address with teachers the academic needs of students;
 - develop strategies to help selected students reach goals (moving them from below basic to basic to proficient) and to follow up on their progress;
 - examine schoolwide instructional issues and compare grades within a school;
 - evaluate teacher practices and identify teachers needing instructional improvement.
- School ensures that every student has a copy of the current English language arts and math textbooks.

Principals report that their districts have the same intense focus, saying the district:

- Has a coherent grade-by-grade curriculum that it uses for all schools, and the district expects the principal to ensure implementation of the curriculum.
- Has clear expectations for student performance aligned with the district's adopted curriculum and evaluates the principal based on the extent to which instruction in the school aligns with the curriculum.
- Makes it clear it expects that all schools will improve student achievement and that schools will meet their API and AYP growth and subgroup targets.
- Provides schools with student achievement data.
- Evaluates the principal based upon improved student achievement and uses student achievement data to evaluate teachers' practices.
- Provides support for site-level planning related to improving achievement.
- Ensures that the school has up-to-date instructional materials, support to provide supplementary instruction for struggling students, enough instructional materials for all students, and support for facilities management.

student demographics. The findings showed some specific things schools do that can help explain the 250-point difference in API among schools serving very similar groups of students.

A shared culture that makes student achievement a top priority can improve performance

The need to focus on student achievement may seem self-evident, but K–12 educators, community opinion leaders, and parents often struggle to balance high expectations for academic achievement in the core subjects of math and English language arts with other goals of schooling, such as socialization, arts instruction, exploratory learning, civic responsibility, and student health issues. This tension, which can be found at all grade levels, can be particularly poignant when educators confront the many student needs at the elementary level. Educators know, however, that learning the core subjects well is critical for the future school success of their students, particularly those who face challenges due to family circumstances.

This study found that staffs at the higher-API schools in our sample were more likely to report a variety of practices aimed at making student achievement a shared priority and responsibility. These schools had a shared culture of student achievement that seems to permeate the work of teachers and principals and is strongly supported—if not demanded—by school district officials. The specific practices they reported are reflected in the box to the left. Through these practices, the schools expressed their commitment to measuring and improving student achievement based on the state's academic standards and actively using curricula and instructional processes toward that goal. Further, their school districts appear

to be taking actions that reinforce this commitment and support the capacity of both principals and teachers to meet their goals.

The skills and capacity of educators make an important difference

Raising student achievement in California at the same time that the student population is becoming increasingly challenged by language and poverty barriers requires a great deal of focused, hard work. The main findings of this study make this clear.

Interviews with 20 superintendents further suggest that the solution, in their view, may also require actions beyond the kinds of support and accountability outlined by principals in their survey responses. These superintendents said that improved student learning also calls for a hard-nosed focus on hiring and training the best possible principals and teachers. In other words, people make the difference, and those people need to have the knowledge and capacity to do this challenging work. This dovetails with the study finding from survey responses that principals are more likely to be in schools with higher APIs if they reported that their teaching staff:

- Has a demonstrated ability to raise student achievement;
- Is knowledgeable about the state's academic standards;
- Has strong content knowledge;
- Has been trained in the curriculum and instructional program;
- Knows how to map standards to instruction; and
- Is able to use data from student assessments.

None of these skills comes automatically with a teaching credential. It is likely that strong professional development programs can help teachers develop these kinds of skills and content knowledge. Another implication relates to distribution of teachers

School districts and state policymakers may want to evaluate the availability to teachers of assessment data by student subgroup

In the survey, both principals and teachers were asked if they received student assessment data disaggregated by student subgroup. *One finding was that teachers in schools with higher API scores were more likely to report that they received CST and CAT/6 data disaggregated by student subgroup.*

A simple tabulation of the principal and teacher survey responses to questions about subgroup data sheds some additional light on the availability of this data, even though it cannot be assumed that the variation in responses correlates with API performance.

That tabulation shows that among the 257 school principals who responded, the vast majority (91%) said they received CAT-6/CST data disaggregated by subgroup. By contrast however, only 35% of all teachers in the sample reported receiving the same data for their classrooms.

In light of this combination of information, school district and site leaders might find that making sure all teachers have access to student subgroup data would be worthwhile. The state ensures that districts receive subgroup data at the school level, but districts have to invest time and effort to disaggregate the data down to the classroom level.

We've also given [principals] really specific training on how to have...courageous conversations with staff members, and how to evaluate staff members...and then even how to manage their own ego.

—A superintendent

among schools within a district. All the schools in our sample served high percentages of low-income students, but the schools with higher APIs were more likely to have strong teaching staffs, according to the school principals. District programs and policies that deliberately and strategically build strong teaching staffs at all schools, but particularly at those serving low-income students, will make an important contribution to those schools' capacity to improve student achievement. Equally important is a district's selection of school principals who come to the job well-qualified and who receive appropriate support and professional development.

Increasingly, researchers and policymakers are recognizing the important

role school districts play in providing the leadership and accountability needed for teachers and principals to realize their full professional potential. To work effectively, districts in turn need state policies that support their leadership while holding them accountable for improvement in their schools. They also need rational state accountability policies that are easy to understand and explain, plus curriculum materials that help them align all the necessary components and practices of school reform. Finally, they need resources, policy, and technical support to ensure that they can retain a high level of dedicated professional expertise at the district level. It takes qualified district personnel to effectively focus funding and resources on student achievement, to identify and implement high-quality

Survey results document professional development needs of principals and teachers at schools serving low-income students

*As part of the Similar Students, Different Results study conducted by EdSource, Stanford University, UC-Berkeley, and AIR, both principals and teachers were asked about their professional development needs. Respondents were given a list of 10 possible professional development topics and asked to select their top three priorities. We categorized their responses based on their school's 2005 Growth API to determine the extent to which those needs might vary between high- and low-performing schools. * We also looked at the responses from schools currently participating in Program Improvement, an intervention program under NCLB.*

Professional development needs of principals vary depending on their school's performance

Regardless of school performance, principals' top choice for additional professional development was "using assessment data." Given this unanimity, it is interesting to note that the second and third most popular choices diverged based on whether the principal was from a high-performing, a low-performing, or a Program Improvement school. Among principals in high-performing schools, the next two priorities were "evaluating teachers' instruction" and "addressing multicultural/diversity issues," both of which ranked near the middle for the principals in the other two groups. By contrast, the principals in low-performing schools collectively chose "training and instructional strategies for English learner (EL) students" and "developing a school plan or shared vision" as their second and third priorities. While the former was popular among high-performing principals as well, the latter showed up 10th. For Program Improvement school principals, the EL strategy was second; but the third priority was "implementing a standards-based curriculum."

Since it began standards-based reform efforts, California has invested in one major program for principal professional development, Assembly Bill (AB) 75 training. This program requires participants to attend 160 hours of training in order to qualify for state funding, and the content must address three specific areas: leadership and support of student instructional programs; leadership and management for instructional improvement; and instructional technology to improve pupil performance. Absent a renewal or extension, this program ends in July 2006. It is unclear the extent to which the Legislature will continue to invest in principal professional development; but if it chooses to do so, this study's findings indicate that a more flexible approach to professional development for principals that acknowledges their diverse capabilities and needs might be appropriate. Of course that assumes that the principals are accurate regarding the professional development that would be most helpful.

Teachers report similar professional development needs regardless of school performance

Professional Development Topic	Priority Among Teachers in High-performing Schools	Priority Among Teachers in Low-performing Schools	Priority Among Teachers in PI Schools
Instructional strategies for multiple learning styles	1	4	3
Language arts curriculum program	2	1	1
Mathematics curriculum program	3	3	2
Instructional strategies for English learners	4	2	4
English Language Development curriculum program	5	5	6
Curriculum standards	6	6	5

In contrast to principals, teachers from high- and low-performing schools and Program Improvement (PI) schools were relatively uniform in their top choices of professional development priorities, though they differed somewhat in the order of these choices, as noted in this table.

The professional development topics least likely to be chosen as a top priority by teachers were classroom management and student discipline; understanding and using data from assessments to inform instruction; multicultural or diversity issues; and school improvement planning.

One interpretation of this, consistent with the other survey responses, is that teachers are naturally focused on one thing—teaching. New and even more seasoned teachers have faced a considerable amount of work mastering the state's new academic standards and working together to align curriculum. These requests for professional develop-

ment cover the main content areas of English, math, and English Language Development—as well as the instructional strategies needed to more effectively teach all students and those for whom English is a second language.

Our survey results also indicate that while teachers in higher-performing schools report receiving student assessment data and reviewing it with their principal, their main job in the school improvement process is the implementation of the standards-based curriculum in a demographically diverse classroom of students. The fact that teachers from both the higher- and the lower-performing schools in our sample requested more training on curriculum subjects suggests that both state-supported professional development programs and teacher preparation programs at universities would do well to maintain a strong emphasis on them.

*This look at professional development requests was done separately from the main analysis of survey data. For this analysis only, we designated high-performing schools as those with a 2005 Growth API that was one standard deviation above the mean for the sample schools and low-performing schools as those with a Growth API one standard deviation below.

teacher and principal professional development programs, to provide instructional support for struggling students, and to analyze student assessment data to improve teacher and school performance.

The state's choice of curriculum programs can affect school performance

In the decade since state leaders in California began taking a standards-based approach to the oversight of public education, they have increasingly aligned the state's curriculum adoption process with that approach. The state's academic content standards have formed the basis for curriculum frameworks and textbook content. Beyond that, however, the State Board of Education (SBE) has increasingly used its textbook evaluation criteria to encourage textbook publishers who want to sell books in California to closely align their materials with the state's vision for classroom instruction.

In 2002 the English language arts adoption required publishers to not only provide textbooks aligned with the standards, but to also augment the texts with robust materials that provided extra guidance for educators, including:

- A clear scope and sequence for organizing the instructional program;

- A variety of assessment instruments for use by classroom teachers;
- Suggestions for modifying the materials to ensure universal access for students with special needs, including English learners; and
- Instructional planning and support for teachers that helps them align instruction with standards.

Only two publishers—SRA/Open Court and Houghton Mifflin—met the state's expectations at that time.

The SBE recently approved the evaluation criteria for the 2008 English language arts adoption. Textbook publishers will now have two years to develop materials that fit these criteria. Given California's importance to publishers, most observers expect to see many more programs available that meet the state's criteria this time around. Once the state adopts textbooks it finds acceptable, districts will then review and choose among the approved list based on those they believe best meet their needs in terms of emphasis and approach. In many districts that means a process, often involving teachers, that leads to a districtwide adoption, with a plan for implementation and appropriate professional development to make sure that school staffs know how to maximize the effectiveness of the materials within the classroom.

What sets this study apart

This study is different because of the following:

- It focuses on California elementary schools serving high percentages of low-income students.
- The study sample includes schools across a wide range of performance levels, sizes, and locations.
- The teacher and principal participation rates are very high.
- Survey responses are within the context of state accountability and standards-based school reform policies.
- Survey questions address actionable classroom, school, and district policies and practices.

The state goes about this process on a set schedule, with different subject-matter areas considered each year. For elementary students, however, there is likely none more crucial than the English language arts adoption now underway.

In two years—once publishers submit their materials for consideration—many opportunities exist for public review and input as part of the state's adoption process. In preparation for that, state policymakers and local educators might be well served to learn more about the reading materials currently in use in California and the conditions that appear to make specific curriculum programs more or less effective in the diverse schools serving low-income children. One question that deserves particular attention is how curriculum and instruction are being most effectively adapted to the needs of English learners. That inquiry can help shape the broad decisions the SBE will ultimately make regarding how reading and the rest of language arts will be taught in California's

Superintendents depend upon their school principals to act as instructional leaders who are able to help support and evaluate teachers.

—A superintendent

Increasing teacher collaboration opportunities has improved the ... delivery of instruction.

Supporting the collaboration with professional development reinforces the ability of everyone to improve.

—A principal

● To Learn More

On the EdSource website at

www.edsource.org/pub_abs_simstu05.cfm, you'll find a wealth of information about the *Similar Students, Different Results* study, including:

- The *Initial Findings*, released in October 2005.
- Additional findings released in April 2006 related to curriculum adoptions.
- Technical appendices that describe the research methodology and provide more detailed findings.
- Copies of the actual surveys used with both teachers and principals.
- Documents that address frequently asked questions (FAQs) about the findings generally and the issue of parent involvement in particular.
- A comprehensive bibliography that includes the "effective schools" research used to develop the surveys and additional research that informed this study.
- Biographical information about the research team.
- Press coverage the study has received since its release.

Copies of this study can be downloaded from the EdSource website.

elementary schools, as well as the subsequent district choices about their curriculum adoptions.

The findings from this study suggest that this curriculum adoption process and the actual materials selected can have a real effect on schools' ability to improve student achievement. State and district decisions should, to the extent possible, be based on evidence about what works to improve student achievement.


School practices can make a difference in the achievement of low-income students

Across California, schools serving similar types of student populations can vary widely in how well they score on the API. The 257 elementary schools (serving

135,673 K–5 students) included in the *Similar Students, Different Results* study were drawn from a fairly narrow band in terms of student demographics (percent low-income, English learner, ethnic/racial subgroups). Yet their 2005 Growth API scores varied by about 250 points.

A school's API score reflects how well its students are performing on the annual California Standards Tests. Such tests are certainly not the only way for a school to measure how well its students are mastering the rigorous academic content of the state's grade-by-grade standards; and they also do not measure the other important things that elementary students may be learning at school—about art and science and music, about citizenship and tolerance of differences, about themselves and their sense of place in the world.

But an elementary school's API score provides the state and the public with a consistent and easy way to grasp information about the progress its students are making toward mastering the important math and reading and writing skills that will enable them to succeed academically in later grades. For this reason, among others related to accountability, a school's API score represents an important measure of student learning.

The range of API scores in our sample suggests that while the socioeconomic backgrounds of students is one predictor of academic achievement, it is not the sole predictor. What schools do—and what resources they have to do it with—can make a difference. With that in mind, the interrelated practices identified in this study may help schools in their efforts to improve student achievement. Further, the insights from the superintendent interviews may provide district leaders with some concrete examples of strategies to consider as they steer and support their schools' improvement efforts. 



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