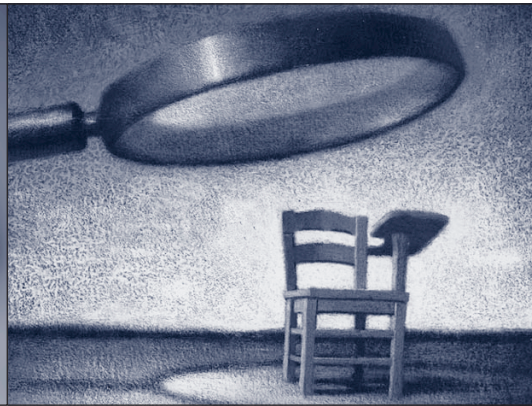


# How Are California's Charter Schools Performing?



With the Charter Schools Act of 1992, California began allowing for the creation of a new type of public school. The school's organizers would operate more or less independently under a charter—or performance agreement—negotiated with a school district or county office of education. Groups could start new schools from scratch or convert existing schools to charter status. A charter school would be subject to fewer restrictions but be more accountable for student achievement. The schools were to meet student performance goals as specified in their charter.

Today about 500 charter schools operate throughout California. Some have been around for more than 10 years, while others received their charters only recently. While most operate independently, a few are under the auspices of larger organizations, some of which are for profit.

In recent years, a number of studies have attempted to assess the effectiveness of the charter experiment, particularly its impact on students' academic achievement. These studies come to very different conclusions depending on the schools, the timeframe, and the performance measures they analyze. Charter

advocates and opponents alike watch these studies closely, with both sides looking for findings to bolster their case. Advocates—who see charter schools as a catalyst for broad reform—want to show that school-level decision making and freedom from most Education Code requirements allow charters to excel. Detractors, on the other hand, seek support for their argument that site-level control, combined with freedom from the regulations and formal oversight of a public bureaucracy, do not necessarily lead to better instruction and student performance and may even hurt educational quality.

This report begins with a discussion of why performance comparisons between charter and noncharter schools can be complicated. It also summarizes the most recent data from California's assessment and accountability systems, comparing types of charter schools and looking at them within the context of the larger system. An overview of the often contradictory findings from prominent research studies illustrate how different experts address the comparison of academic performance among charter school students versus their peers in the regular system. This report also adds to that ongoing

discussion with a new EdSource analysis that approaches the issue somewhat differently. Taken together, the information in this report raises questions Californians should be asking about the state's charter schools and their performance, and it illuminates some reasons why clear answers are so elusive.

## Exploring performance among charter schools is a challenge

In California, the academic progress of students in individual charter schools can be examined using the same test-based measures used for noncharterers, however imperfect those may be. According to state statute, charter schools are required to participate in the state's standardized testing programs. They are also evaluated using the same accountability systems the state and federal governments require of other public schools. (See the box on page 2.) Finding

## Key Findings

On page 19 you will find a summary of the major conclusions included in this report regarding charter school performance in California.

## State tests and accountability measures that apply to charter schools

**Charter schools are required to administer the following tests to their students and report the results to the state:**

- The Standardized Testing and Reporting (STAR) program, which includes the California Standards Tests (CSTs) in grades 2–11 plus the nationally referenced CAT/6 survey test (which replaced the SAT-9 in 2003). Starting in 2005, only 3rd and 7th graders will take the CAT/6.
- The California High School Exit Exam (CAHSEE).
- The California English Language Development Test (CELDT) for English learners.

In California, parents have a right to opt out of testing for their child.

**For purposes of school accountability, charter schools are ranked and/or evaluated based on the following:**

- The Academic Performance Index (API), which incorporates the results of STAR and CAHSEE to generate Base and Growth API scores.
- Adequate Yearly Progress (AYP), per federal requirements, based on the percent of students proficient in math and English on the CSTs, or the CAHSEE for high school students, plus additional indicators.

constant and predictable, as is the number of students these schools serve.

Compare that to the charter school segment. Between 1993–94 and 2004–05, the number of charter schools went from 31 to 518. During that same time, another 40 schools had their charters revoked and 95 others closed, according to California Department of Education (CDE) records. (See Figure 1.)

The constantly growing number of charter schools makes generalizations about charter school improvement over time difficult. A simple calculation—such as the percentage of high schools that met their state-determined growth targets on the Academic Performance Index (API) over five years—is only possible for a very small number of schools. (For an explanation of how the API works, see the box on page 4.) Presumably, as the number of long-lived charter schools increases, assessments of their improvement over time will become more meaningful.

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testing and accountability scores for individual schools is thus an easy matter.

Generalizing about school performance and comparing groups of schools presents a much more complex challenge, particularly if one is interested in comparing charters to other public schools. This is because of the constant turnover and increase in the number of schools and because the universe of charter schools is—in a variety of ways—quite different from noncharters. Within that universe, charter schools are also markedly different from each other. In addition, for various reasons they are substantially less likely to have full data sets.

#### *Constant change makes comparisons difficult*

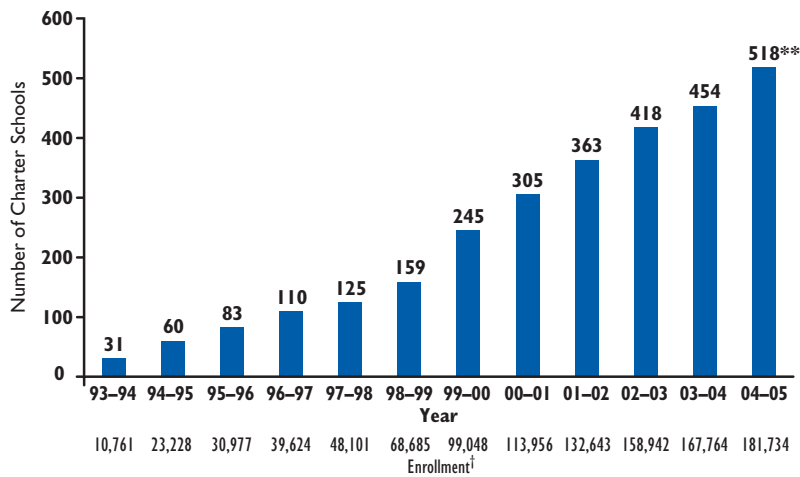
While some schools open and close each year in California, the more than 9,000 public schools are—as a group—relatively stable. The total number of schools changes little from year to year, and the mix of grade levels is on the whole fairly

#### *Charters often differ in grade configurations*

Charters are also more varied in their grade-level configurations. Most California charter schools, like most regular public schools, are configured as elementary, middle, or high schools; but a substantial portion depart from that model. In 2003–04, a full 13% served all of grades kindergarten through 12, and another 15% could be categorized as nontraditional because they either offered only one grade, or they covered an unusual grade span that crossed over the traditional categories (e.g., K–9 or I–II). Unconventional grade configurations are more common among charters, perhaps in part because some start-up charters add a grade each year as they become more established.

For calculating API scores and ranking charter schools along with others, the state groups all these various configurations into three categories—elementary,

**figure 1** | The number of charter schools\* has increased dramatically in California



\*To be counted among the schools open in a given year, a school must operate at a minimum from November 1 through February.

\*\*None of the achievement data in this report correspond to the 2004-05 school year.

† Enrollment data is not available for a few schools each year.

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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middle, and high schools. (See the box on page 5.) While this approach makes it easier to compare large groups of schools, it may also create some misleading comparisons when school configurations do not fit the typical pattern.

### Charter schools' student demographics appear somewhat different

Comparing charters as a group to all noncharters can also be misleading because of student characteristics. Charter schools as a whole enroll somewhat different students than noncharters. Charter schools are less likely to serve Hispanic students, English learners, or students from low-income families. Elementary schools differ the most in this regard, while high schools differ the least. (It is important to note that the percentage of low-income students in charter schools may be undercounted because it is often based on eligibility for free/reduced-priced meal programs, which many charter schools do not run.)

When it comes to total school enrollments, however, the difference in size between charter and noncharter schools is most dramatic at the high school level. Elementary schools are more similar.

Some research indicates that small schools are more effective, at least with some students. That represents another complicating factor because it is unclear to what extent school size, as opposed to charter status, may account for some differences in academic performance.

Later in this report, analyses of elementary (page 9), middle (page 11), and high schools (page 13) provide detailed comparisons of student demographics, school size, and teacher characteristics.

Some authorities cite a less tangible difference between students in noncharter versus charter schools. Demographic data cannot reveal the qualitative differences in student attitude, motivation, or frustration with traditional school structures that might differentiate charter students. Those differences could make a material difference in their performance.

### Status and operations differentiate charters from each other

As stated earlier, the community of charter schools is quite diverse. Charters can be categorized in ways that help describe how they differ and illuminate some important distinctions vis-a-vis traditional public schools. This report distinguishes among charters according to how they were established, how long they have been operating as a charter school, and whether they offer their instruction primarily in classroom settings.

The first distinction is between *conversion* and *start-up* charters. Conversion charters were once regular public schools. Start-ups, on the other hand, began as charter schools. Presumably a conversion school decided to break away from state and/or district office policies on curriculum, finance, the academic calendar, or other major issues. This new charter status was overlaid onto an existing school culture and ongoing staff and community relationships. By contrast, a start-up often represents one person's or group's brainchild that exists independent of a district context. It presumably begins as a new enterprise in which roles, relationships, and processes are all created. (These generalizations may not fit every school officially categorized as a conversion or start-up.)

Start-ups, which make up about 70% of all charter schools, vary more dramatically from noncharter public schools than conversions do. For example, the median noncharter school has 33% white students, the median conversion school has 45%, and the median start-up 55%. The relationships are similar for other student and school characteristics, with the charter schools generally having smaller student bodies and lower percentages of English learners, Hispanic students, and experienced and fully credentialed teachers.

Second, there are *established* and *new* charters. It is reasonable to expect that a charter's performance in its beginning

## How the Academic Performance Index (API) works

Since 1999, California has evaluated school performance using its Academic Performance Index (API) system. The API score is a one-number summary of a school's scores on various tests. The school also receives an API for each "numerically significant" subgroup of pupils categorized by ethnicity and poverty.

The API system is organized into two-year cycles. Some time between January and March, each school receives a "Base API" score, based on its students' performance on tests given in the spring of the prior year. It also receives growth targets for improvement. Students take state tests again in the late spring, and those scores are used to calculate a "Growth API" that schools receive in the fall, completing the two-year cycle.

**Student scores on the state's standardized tests are used to create the index.** The combination of tests used in the index has evolved along with the state testing system. Beginning with the 2002 Base APIs, the California standards tests—which assess students' mastery of the state's academic content standards—have played a dominant role in the API. Student performance on these tests is reported as meeting one of five performance levels: far below basic, below basic, basic, proficient, and advanced.

An API score is based on the distribution of scores among the five performance levels, with various subjects and tests receiving differing weights in that calculation. API scores can range from 200 to 1000. If all students score in the top performance band on all subtests, the API score will be 1000. The state set 800 as the target score for all schools.

The elements that make up the API have changed almost every year, which is one of several reasons why some criticize it. However, in each API cycle, the Growth API is calculated using the same elements as the Base API, ensuring that the Base/Growth results are comparable. For high schools, the California High School Exit Exam, which assesses mastery of standards in English language arts and math, was incorporated beginning with the 2002 Base API.

**Base API scores are used to compare or rank schools and to set growth targets.** Schools are ranked with schools of the same type—elementary, middle, and high.\* First, they are ranked against all their counterparts in the state, and next they are ranked against the 100 most similar schools, based largely on student demographics. For both types of rankings, they are clustered into 10 groups of roughly equal size known as "deciles." The bottom 10% of each school type belongs to Decile 1, the second lowest 10% to Decile 2, and so on. A shorthand has developed around these rankings: a "7/5" school, for

example, would be a school that received a state decile ranking of 7 and a "similar schools" ranking of 5.

To achieve growth in its API score, a school (or subgroup) needs to decrease the percentage of pupils who score in the lower performance bands and increase the percentage who score in the higher bands. The API formula rewards growth from the bottom of the performance distribution more heavily. This creates an incentive for a school to work with its lowest-performing students.

For a school with a Base API score below 800, the annual growth target is 5% of the difference between 800 and its Base score. For example, a school with a Base score of 500 would have a growth target of 15, which is 5% of the difference between 500 and 800. Schools with Base scores of 800 and above are expected to maintain scores at that level. Subgroup growth targets are generally 80% of the school's target.

**The Growth API is one way to measure improvement from year to year.** The API does not reflect individual students' test-score growth. It summarizes a school's performance in one year (Base) and compares it to the school's performance in the following year (Growth), but the groups of students at each grade level are different. For example, in a K-5 elementary school, the Base API includes scores of fifth graders who would no longer attend the school during the Growth API year. This diverges from the "gold standard" for assessing schools' academic performance, which would be to follow the test-score growth of individual students over time.

**Before 2002, some schools were not assigned APIs.** Originally, California did not assign API scores to every school every year, and many charter schools were among those excluded. When the system was first created, a school did not receive an API if it had fewer than 100 test-takers or if its student body was predominantly at-risk students (e.g., continuation high schools, court schools, or other alternative schools). These schools instead qualified for the "Alternative Schools Accountability Model." Further, schools with irregularities in the test administration, or that experienced a significant demographic change from the previous year, did not get an API score in the second year.

(For a further explanation of the various components used to calculate the API, see [www.edsource.org/edu\\_acc\\_api.cfm](http://www.edsource.org/edu_acc_api.cfm).)

\*"Small" schools—those with fewer than 100 test-takers—technically are a part of the Alternative Accountability system. Their API scores come with an asterisk to indicate that the scores may not be as accurate an indicator of the schools' "true" performance as it is for larger schools. Small schools do not affect the rankings, but they are given the ranking associated with their API scores.

stage is not necessarily indicative of its full potential. For this report, EdSource somewhat arbitrarily defines conversion charters as "established" if they have been

open for a full school year. Start-ups are deemed "established" if they have been open for two full years. Conversions and start-ups are treated differently because it

is assumed that conversions, though they experience changes in governance and finance when they convert, generally still enjoy some continuity in students, staff,

and facilities. In 2003–04, about 65% of charter schools would have been considered “established” under EdSource’s definition. Established and new schools were similar in terms of student ethnicity and parent education levels, but the newer schools tended to have less experienced and credentialed teaching staffs and to be smaller. For example, the median noncharter had 620 students, the median established charter had 297, and the median new charter had 169.

Finally, there are *classroom-based* and *nonclassroom-based* charters. In 2001 the Legislature established a definition of a nonclassroom-based charter school as one that does not require its pupils to be onsite under the direct supervision of a teacher for at least 80% of the instructional time—four school days out of five, for example. Schools that provide a substantial portion of their instruction through distance learning or independent study generally fit that definition. Charters with a traditional classroom system, which make up almost 70% of all charter schools, are considered classroom-based.

Charters deemed nonclassroom-based were very similar to their classroom-based counterparts in total enrollments but had relatively large percentages of white students and low proportions of English learners. They also had a high rate of student “mobility” (median of 55% versus 15% in regular public schools), indicated by a relatively high percentage of students in their first year at the school (lowest grade excluded). There are many plausible explanations for this. For example, it could indicate that a different type of student is attracted to these schools. Perhaps students having trouble in conventional school settings use nonclassroom-based schools as a transition between more traditional schools. Such differences in the type of students served, which are not readily measured and reported to the state, should be kept in mind when comparing

## How schools are classified for the Academic Performance Index (API)

For API purposes, most California public schools are ranked among schools of the same type—elementary, middle, and high. However, schools have a great variety of grade spans, which necessitates rules for classifying schools into those three categories.

The California Department of Education (CDE) generally classifies schools based on the largest number of grades a school has in “core” grade spans of K–5, 7–8, and 9–12. (Sixth grade is left out of the core grade spans because some view it as an elementary grade while others see it as a middle grade.) A K–8 school, for example, would be considered an elementary school because it has six grades in the core elementary grades versus only two grades in the core middle grades. For schools with an equal number of grades in two or three core spans, the CDE assigns schools to a type based on the largest enrollment in a core grade span. This means that a hypothetical 4–10 school with 130 students in grades 4–5, 190 students in grades 7–8, and 120 students in grades 9–10 would be deemed a middle school for purposes of the API because the middle grade span has the most students. Schools are assigned the same type for both years in a two-year API Base/Growth cycle. From one cycle to the next, however, their type may change based on the students that they serve.

the achievement of these schools to other charters and mainstream noncharters.

### *Variations in funding and other policies complicate comparisons*

Charter schools generally receive more money per pupil than districts receive in general purpose funds (revenue limit funding) but less than the total most districts receive when special purpose funds are considered. But wide variations in funding per district leave even this simple statement open to debate.

It is clear that many charters forego extra funding they could receive because they want to avoid the administrative requirements of some state and federal programs. In a July 2003 evaluation of California’s charter schools, RAND found that charters were much less likely than comparable noncharters to participate in eight relatively large programs, including the federal Title I program for low-income students, K–3 Class Size Reduction, and Supplemental Instruction.

Many charter schools, especially start-ups, also spend at least a portion of

their operating funds to cover the cost of facilities, a necessity few regular public schools face. Although charter schools have in recent years been given more avenues for securing facilities—or funding for them—some are unable to take advantage of those options. For example, some of these funding avenues require that the school or at least its operators have a successful track record or that they serve primarily low-income students.

On the other side of the equation, some charter schools enjoy substantial amounts of support from private sources. These funds usually come with fewer of the requirements attached to government funds. RAND reported that charter schools on average received \$433 per student from these sources while comparable regular schools received \$83.

Within the charter community, schools differ in other important ways. Charters can choose to operate as financially independent entities, getting their funds straight from the state. Or they can be financially dependent, with their chartering school district passing state funds through to them and helping

them with some management, administrative, and/or operational functions.

Charter schools also vary in their employment agreements with teachers and other staff. At one end of the spectrum are those whose teachers are represented by the same union as their counterparts throughout their chartering district. At the other end are schools where teachers choose to forego union representation with its employment protections and collective bargaining rights.

(For more details on the differences in funding, see EdSource's June 2004 report, *Charter Schools in California: An Experiment Coming of Age*.)

### *A substantial portion of charter schools do not have API data*

A final factor that makes assessments of charter school achievement complex is the substantial portion of schools without API data. Consider the charter school universe in 2003–04. That year, 454 charter schools were open, but 82 did not have 2004 Base API scores. Of

those 82 schools: 12 were not in the California Department of Education's API file; 23 were in the alternative schools accountability model, which does not use API scores to monitor performance; and 47 were listed in the API file but did not have scores for various reasons (explained below). Those 47 schools constituted 11% of the charter schools listed.

In contrast, of the state's 8,766 noncharter public schools, 7,813 were in the API system and 3% lacked scores. Another 953 schools were in the alternative schools accountability model (ASAM).

Among charter schools, 353 were listed in the 2004 Growth API file, which reports growth between the 2003 Base and 2004 Growth APIs. Of those, 80 schools (or 23%) lacked scores. In contrast, 6% of noncharters in the 2004 Growth API file did not have data. Figure 2 illustrates the wide variations in API data available based on school types. Note that almost half of nonclassroom-based schools are missing data.

The California Department of Education lists a variety of reasons why schools do not receive a score, but there are two main reasons that charter schools are missing data. One is that the schools did not test a sufficiently large group of students to have statistical meaning and preserve individual students' privacy. The other is that the students tested were not sufficiently representative of the school as a whole, often due to a large percentage of parents' excusing their children from STAR tests, upon which API scores are largely based.

In addition, new, start-up charter schools do not receive their first API score until much of their second year of operation has passed because they do not participate in the state testing system until the end of their first year, and it takes about nine months for Base scores to come out. Effectively then, it is not until a charter's third year that its first Growth API score, and thus its success under the state's accountability system, has been reported. Of course, this is true for new noncharter schools as well.

## A comparison based on types of charters

When test data is used as the measure of school performance, it can be done several ways. The most accurate approach is to compare the performance of a particular group of students over time. In California such a comparison cannot be done at the state level because individual student data is not available. California's API system makes it possible, however, to do three other types of comparisons.

**Absolute comparisons** ignore differences in student characteristics as California does with its API rankings. These are released each year along with schools' Base API scores. The state system only makes absolute comparisons among all schools that serve similarly-aged students, i.e., elementary, middle, and high school.

**Similar school comparisons** look at schools whose students share similar characteristics. This approach acknowledges that school performance is highly correlated to students' backgrounds, most notably the education level of their parents. Schools in California receive a "similar schools" ranking that serves this purpose.

**Comparisons over time** examine a single school's improvement in performance. In California this involves a comparison of Base and Growth APIs in a two-year cycle. The state assigns each school a growth target that is a benchmark for its success and reports on whether each school met its target. (This kind of measure is less meaningful when a school is high performing from the start).

The following sections use these three types of comparisons to look at charter school performance. They examine charter school performance by type, by grade level, and finally based on the state's newly established performance criteria for charter renewal. The result is a rich tapestry of information that not only illuminates charter school performance, but also makes clear how many questions remain.

In California's public schools, the state-adopted academic content standards represent official expectations for the skills and knowledge students will master in school. The California standards tests (CSTs) are used to measure students' mastery of the standards.

figure 2 | Percent of schools meeting 2004 API Growth Targets

School Type (Pie charts: Percent with/without API data)	2003-04 Enrollment	Number of Schools in API System	Number of Schools with API Data	Percent of Schools with API Data Meeting 2004 API Growth Targets	
				Yes	No
<b>All Noncharter Schools</b> 	5,931,819	7,671	7,237	48%	52%
<b>All Charter Schools</b> 	143,264	353	273	60%	40%
<b>Charter Schools By Type</b>					
<b>Conversion</b> 	48,508	79	75	61%	39%
<b>Start-up</b> 	94,756	274	198	59%	41%
<b>Established</b>					
<b>Established</b> 	106,116	229	188	59%	41%
<b>New</b>					
<b>New</b> 	27,148	124	85	61%	39%
<b>Classroom-based</b>					
<b>Classroom-based</b> 	94,288	252	218	64%	36%
<b>Nonclassroom-based</b>					
<b>Nonclassroom-based</b> 	48,976	101	55	44%	56%

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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Students' scores on the CSTs and other tests are summarized into Academic Performance Index (API) scores for the school as a whole and subgroups of students. (For a more detailed explanation of the API and its limitations, see the box on page 4.)

Not everyone supports the state's academic content standards or thinks that the CSTs accurately measure students' mastery of those standards. Some see the API as an unreliable and arbitrary measure of schools' and subgroups' achievement. But meeting API growth targets represents the state's goal for all schools, including charters. As such, it is as fair and sound a measure of charter students' achievement as it is for noncharter. However, all charter schools are not alike, and the ways they differ seem to have some relationship to their ability to succeed based on the API measure.

*Missing data clouds comparisons of improvement by charter type*

Figure 2 shows the percentage of charter schools in the various categories that improved over time, meeting both school-wide and subgroup API growth targets in the 2003 Base/2004 Growth cycle. It also shows the number of schools held accountable in the API system and the number with actual API scores. A comparison of the two numbers shows that a substantial portion of some types of charter schools did not have API data, making it more difficult to compare performance in a meaningful way.

Based on these data, conversion schools narrowly outperformed start-up schools, though it must be noted that the number of start-ups missing data was close to the total number of conversion schools. Classroom-based schools did substantially better in meeting growth targets than nonclassroom-based schools that had growth data, but nearly half of the nonclassroom-based schools lacked growth scores. Somewhat surprisingly,

**figure 3** | **Percent of schools meeting 2004 API growth targets, further disaggregated**

Established vs. New	Classroom-based vs. Nonclassroom-based	Conversion vs. Start-up	Number of Schools		Percent with Growth Data Meeting Growth Target	
			In API System	With Growth Data	Yes	No
Noncharter Schools			7,671	7,237	48%	52%
Charter Schools			353	273	60%	40%
Established Charters	Classroom-based	Conversion	61	60	62%	38%
		Start-up	100	90	64%	36%
	Nonclassroom-based	Conversion	13	10	40%	60%
		Start-up	55	28	43%	57%
New Charters	Classroom-based	Conversion	5	5	100%	0%
		Start-up	86	63	62%	38%
	Nonclassroom-based	Conversion	0	0	N/A	N/A
		Start-up	33	17	47%	53%

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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new schools beat out established charters by a small margin. (To be considered “established,” a conversion must have been open by 2001–02, and a start-up must have been open by 2000–01.)

### *Classroom-based schools consistently perform better*

Comparing the performance of charter schools by category is likely to interest policymakers who want to foster the creation of successful charter schools and discourage the less successful types. However, policy decisions based just on data for these broad categories could overreach. For example, conversion schools are outperforming start-ups, but are the conversion schools relying mostly on classroom-based instruction while start-ups are mostly nonclassroom-based? Cross-tabulating the various categories makes it possible to see beneath the

surface comparison to address this type of question.

In Figure 3, schools are first categorized as established or new, then subdivided into classroom-based or not and—within that—as conversions or start-ups. The table shows the percentage of each subcategory that improved over time, meeting its growth targets in 2004. The number of schools in each group should also be considered when comparing performance.

From this analysis, it appears that the most successful charters in meeting 2004 API growth targets were newer, classroom-based, conversion schools. But while all schools in that group met their targets, the group included only five schools.

Classroom-based charters in other subcategories also did well, however. The three runner-up subcategories all offered classroom-based instruction, and all did better than noncharters, 48% of which

met their growth targets. The least successful charters were established, nonclassroom-based, conversion schools. Only 40% met their targets, but three of 13 were missing data.

Given that classroom-based charters tended to perform well—and that very similar percentages of established and new charter schools offered classroom-based instruction—the similarity in performance between established and new charters does not seem as surprising as it otherwise might. Similarly, the stronger performance of conversion schools as compared to start-ups may be partially explained by the fact that conversions were more likely than start-ups to offer classroom-based instruction (87% of schools with API scores versus 77%).

Another factor affecting performance is the grade levels that a school serves. For example, elementary schools have typically been more successful on the API, both in terms of overall scores and in the percentage of schools meeting growth targets. Therefore, comparisons of different types of charters, and between charters and noncharters, must take the grades served into consideration. The following section examines how elementary, middle, and high school charters, as defined in the API system, have performed. This looks at improvement over time, absolute comparisons, and similar schools comparisons. Before turning to performance per se, it is helpful to understand how charter schools at each grade level compare to noncharters. Thus each of the grade-level sections that follows provides that data. The performance of various subcategories of charters within those grade-level types is also discussed.



## Elementary charter school performance is improving

The data indicate that elementary charter school students are less likely to come from the backgrounds most correlated with low student achievement than their noncharter counterparts. The “typical” (median) elementary charter has about half as many English learners and students eligible for free/reduced-price meals as well as a third as many students whose parents do not have a high school diploma. These charter schools are also about 50% smaller but have more students new to the school. They also have a much greater percentage of teachers who are less than fully credentialed and less experienced.

### *Charter elementary schools surpass noncharters meeting growth targets for first time in 2004*

As with charter schools generally, the number of charter elementary schools has grown substantially, making the task of looking at their progress over time somewhat complex. In addressing the question of whether they are meeting the state’s expectations for improvement, the following statistics are important to keep in mind:

- 202 charter elementary schools were in the API system of accountability in the 2003 Base/2004 Growth cycle.
- 175 schools—87%—have the data necessary to determine whether they met their growth targets in the most recent API cycle, compared to just 49 schools in the 1999/2000 cycle.
- Of those 175 schools, 58 were conversions and 117 were start-ups; 145 were classroom-based and 30 were nonclassroom-based.
- These 175 schools had 70,198 students.

Figure 4 compares elementary charter schools to noncharters. The data show

## Key Characteristics of California Elementary Schools† in 2003–04

**Statewide average:** shows the percentage of elementary students or teachers in each category statewide.

**Median:** shows the percentage for a “typical” school—one at the 50th percentile for a given characteristic. Equal numbers of schools have higher and lower percentages.

**Range for middle half:** shows the percentages for the schools at the 25th and 75th percentiles. It provides a sense of how schools within each group vary and how charters and noncharters differ as well.

	Charter Schools (n=231)	Noncharter Schools (n=5,427)
<b>Student Characteristics (Statewide Average)</b>	<b>Median</b>	<b>Median</b>
	Range for Middle Half	Range for Middle Half
English Learners (29%)	11%**	24%*
	3%–50%	9%–46%
Hispanic (43%)	17%	39%
	8%–52%	16%–70%
White (36%)	54%	30%
	8%–76%	8%–60%
African American (8%)	4%	3%
	1%–11%	1%–9%
Asian (8%)	1%	3%
	0%–4%	1%–9%
Free/Reduced Price Meals (52%)	26%*	53%*
	2%–63%	21%–78%
Parents Not High School Grads (21%)	4%*	15%*
	1%–18%	4%–32%
One+ Parent a College Grad (18%)	26%*	16%*
	14%–36%	8%–28%
Student Mobility (20%)	24%*	17%*
	14%–45%	12%–22%
<b>School Characteristics</b>		
Enrollment (average size 566)	222	555
	123–422	402–729
Teachers Not Fully Credentialed (6%)	13%	3%
	0%–29%	0%–8%
Teachers in First Two Years (11%)	20%	8%
	10%–38%	3%–14%

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)—CBEDS

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†INCLUDES ONLY SCHOOLS IN THE API SYSTEM NOT THOSE IN THE ALTERNATIVE SCHOOLS ACCOUNTABILITY MODEL.

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\*\*DATA MISSING FOR AT LEAST 20% OF SCHOOLS.

their ability to meet the state’s expectations for improvement over time based on API growth targets for the school as a whole and for all significant student subgroups. (See the box on page 4 for further explanation).

In the last two cycles—since the state standards have played a predominant role in the index—elementary charter performance has improved. With the 2004 Growth API, charters exceeded noncharters on this measure for the first

figure 4 | Elementary schools that made API growth targets

	Two-year API Base/Growth Cycle				
	1999/00	2000/01	2001/02	2002/03	2003/04
Number of charters in API accountability system	56	73	96	130	202
Number of charters with growth data	49	69	89	120	175
Percent of charters with growth data making growth targets	69%	49%	52%	75%	57%
Percent of noncharters with growth data making growth targets	77%	64%	60%	83%	46%

- It is more meaningful to compare percentages within individual API cycles because of the growing number of charter elementary schools and the changing index used to measure school performance (the API).
- The bottom two rows reflect the schools with API data in both years of a given two-year API cycle.

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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time. On average, these schools gained eight points while noncharter elementary schools gained four. This greater growth allowed 57% of elementary charters to meet their targets, while 46% of noncharters hit their marks.

*Based on absolute rankings, the elementary charter top performers were classroom-based*

The spring 2004 test results were also used to create new Base API scores. Based on those scores, schools were ranked among others serving the same grade levels and, separately, among 100 schools facing comparable challenges.

For absolute comparisons, schools are ranked in 10 bands, called deciles, with each decile representing 10% of schools. The figures below reflect the percentages of charter elementary schools that placed in the highest, middle, and lowest range of deciles. It includes the 206 charters listed in the 2004 Base API that had a decile rank. To put the percentages in perspective, keep in mind that about 30% of schools overall occupy the top three deciles, 40% fall in deciles 4–7, and the remaining 30% are in the lower three deciles.

- High-performing, deciles 8–10: 26% (53 schools)
- Mid-performing, deciles 4–7: 39% (80 schools)
- Low-performing, deciles 1–3: 35% (73 schools)

The charter schools in the top three deciles were predominantly established schools with classroom-based programs. Of the 13 charter elementary schools in Decile 10, all but one fit that description. Similarly, the Decile 8 and Decile 9 charter schools—of which there were 40—included 32 schools that were established and classroom-based.

Interestingly, the charter elementary schools in the low-performing deciles represent a much wider range of configurations. Many classroom-based schools are among the lower deciles, but not disproportionately. New start-ups are over-represented in the lower performance bands, however.

*Based on similar schools rankings, many elementary charters are not doing well*

The state uses the “similar schools” rankings to indicate how well a school is doing compared to the set of 100

schools most like it in terms of student demographics, teacher qualifications, and a few other factors. A school with a similar schools rank of “1” scored in the bottom 10% of its comparable schools, and a school with a “10” scored in the top 10%. When looking across all of California’s public schools, each similar schools rank contains roughly 10% of schools. Therefore, if a large group of charter schools is performing on par with noncharters, roughly 30% will score in deciles 8–10, 40% will have a rank of 4–7, and the remaining 30% will score in deciles 1–3. Because schools with fewer than 100 test scores do not receive such rankings, the number of charter schools with such ranks in the 2004 Base API is 142 (versus 206 with statewide decile ranks). The elementary charters with similar schools ranks scored as follows:

- High-performing compared to similar schools, ranks 8–10: 23% (33 schools)
- Mid-performing compared to similar schools, ranks 4–7: 23% (32 schools)
- Low-performing compared to similar schools, ranks 1–3: 54% (77 schools)

Here again, conversion schools did much better than start-ups, and classroom-based charters substantially outperformed schools that were not classroom-based. Those that did very well relative to their comparison schools, scoring an “8” or above, were all classroom-based. Nonclassroom-based charter schools, on the other hand, consistently performed worse than the schools to which they were compared. Of the 26 nonclassroom-based schools, 18 received a similar school ranking of 1, and none scored above a 6.

## Charter middle schools are small in number but perform well

As with elementary schools, charter middle schools tended to serve students from more advantaged backgrounds but with more uncredentialed and inexperienced teachers. The median charter middle school had about one-third fewer English learners, one-third fewer low-income students, and students with much better-educated parents. The typical charter middle school had three times as many teachers who were not fully credentialed and twice as many teachers in their first two years in the profession. The charter schools were also dramatically smaller, and the mobility of their student populations was comparable to noncharters.

### *The small group of charter middle schools showed impressive improvement from 2003 to 2004*

Using the API to track over time the progress of charter middle schools as a group is a particular challenge because of the very small number of schools today and the even smaller number in existence in 1999. In the 2003 Base/2004 Growth API cycle:

- 31 charter middle schools were in the API system of accountability.
- 27 schools—or 87%—had the data necessary to determine whether they met their growth targets, compared to just 11 schools in the 1999/2000 cycle.
- Of those 27 schools, nine were conversions and 18 were start-ups. All were classroom-based.
- These 27 schools had 13,572 students.

Figure 5 compares charter schools to noncharters in terms of their ability to achieve their API growth targets and meet the state's expectations for improvement. After a sharp drop between the first and second cycles, charter middle schools have shown steady improvement in their ability to meet their targets. By compari-

## Key Characteristics of California Middle Schools† in 2003–04

**Statewide average:** shows the percentage of middle students or teachers in each category statewide.

**Median:** shows the percentage for a “typical” school—one at the 50th percentile for a given characteristic. Equal numbers of schools have higher and lower percentages.

**Range for middle half:** shows the percentages for the schools at the 25th and 75th percentiles. It provides a sense of how schools within each group vary and how charters and noncharters differ as well.

	Charter Schools (n=43)	Noncharter Schools (n=1,208)
<b>Student Characteristics (Statewide Average)</b>	<b>Median</b>	<b>Median</b>
	Range for Middle Half	Range for Middle Half
English Learners (20%)	11%** 5%–11%	16%* 6%–30%
Hispanic (41%)	22% 12%–62%	36% 17%–63%
White (37%)	43% 4%–64%	37% 11%–62%
African American (8%)	5% 1%–17%	4% 1%–10%
Asian (8%)	3% 0%–7%	3% 1%–10%
Free/Reduced Price Meals (41%)	26%* 3%–68%	40% 14%–65%
Parents Not High School Grads (21%)	5%* 2%–22%	16%* 6%–32%
One+ Parent a College Grad (20%)	29%* 14%–42%	18%* 10%–29%
Student Mobility (19%)	15%* 10%–52%	13%* 10%–19%
<b>School Characteristics</b>		
Enrollment (average size 956)	213 104–393	914 660–914
Teachers Not Fully Credentialed (11%)	19% 3%–54%	6% 2%–15%
Teachers in First Two Years (13%)	25% 12%–54%	11% 6%–17%

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)—CBEDS

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son, the percentage of successful noncharters has fluctuated more.

The percentage of charter middle schools that have reached their targets has increased in each of the last three cycles. The last two cycles, when the state's challenging standards figured predominantly

in the index, the percentages were an impressive 74% and 81%. The extent of improvement is also notable. Charter middle schools gained an average of 25 points between the 2003 Base and 2004 Growth APIs. Noncharters, on the other hand, averaged 11 points of improvement.

figure 5 | Middle schools that made API growth targets

	Two-year API Base/Growth Cycle				
	1999/00	2000/01	2001/02	2002/03	2003/04
Number of charters in API accountability system	13	13	17	21	31
Number of charters with growth data	11	12	16	19	27
Percent of charters with growth data making growth targets	55%	25%	50%	74%	81%
Percent of noncharters making growth targets	61%	51%	38%	68%	54%

- It is more meaningful to compare percentages within individual API cycles because of the growing number of charter middle schools and the changing index used to measure school performance (the API).
- The bottom two rows reflect the schools with API data in both years of a given two-year API cycle.

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)

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### Charter middle schools shine in similar schools rankings in 2004

An absolute comparison between charter and noncharter middle schools is limited in its significance because of the small number of charters. The 2004 Base API statewide rankings include just 42 charter middle schools. That said, the

performance of charter middle schools based on this indicator presents a more positive picture than is the case with elementary schools. Once again, the high-performing schools were disproportionately established conversion schools. New start-ups were over-represented among the lower deciles.

The 2004 Base API rankings for the 42 charter middle schools follow:

- High-performing, deciles 8–10: 38% (16 schools)
- Mid-performing, deciles 4–7: 38% (16 schools)
- Low-performing, deciles 1–3: 24% (10 schools)

When compared to schools with similar students and similarly credentialed teachers, charter middle schools also performed well. In the similar schools rankings, where each school is compared to 100 schools with similar challenge levels, 53% of schools did quite well. Start-ups, especially those that had been open for at least two years, were particularly noteworthy. The 32 middle schools that received similar schools rankings performed as follows:

- High-performing compared to similar schools, ranks 8–10: 53% (17 schools)
- Mid-performing compared to similar schools, ranks 4–7: 31% (10 schools)
- Low-performing compared to similar schools, ranks 1–3: 16% (5 schools)

## Algebra I and California High School Exit Exam (CAHSEE) test scores are important indicators

API scores do not tell the whole story of academic performance.

### Charter middle schools are not doing as well teaching algebra

In the late 1990s, the state adopted math standards that called for eighth graders to take Algebra I. As a result, middle schools have faced growing pressure to instruct their students in this subject. Both charter and noncharter middle schools have roughly 40% of eighth graders enrolled in algebra and taking the California standards test. But on an absolute comparison, the charter students performed worse than their counterparts in 2004. In charter schools, 21% of eighth-grade algebra students scored “proficient” or “advanced.” A substantially higher 35% did so in regular public schools. It is likely that neither charters nor regular public schools are entirely satisfied with their performance, but the noncharters definitely outperform charters in this key area.

### Charter 10th graders did not fare as well on the CAHSEE in 2004

In the 2003–04 school year, 10th graders in noncharter high schools outperformed their counterparts in charter high schools on the exit exam. School-level data regarding students who passed both the math and English language arts portions of the test are not available. On the math section alone, 74% of noncharter students passed while 61% of charter students passed. The difference in passing rates in English language arts was much smaller: 75% of noncharter 10th graders passed, while 71% of charter students did.

As with meeting API growth targets, performance among different categories of charters also varied. As the table indicates, conversion schools beat start-ups and classroom-based charters outperformed their nonclassroom-based counterparts by a healthy margin in both cases. Established charters had slightly higher percentages of students passing the CAHSEE than did new charters.

### Percent of charter and noncharter 10th graders who passed the CAHSEE in 2004

	Percent Passing	
	Math	English
Noncharters	74%	75%
All Charters	61%	71%
Comparisons Among Types of Charters		
Conversion	80%	84%
Start-up	56%	67%
Classroom-based	69%	76%
Nonclassroom-based	52%	65%
Established	62%	73%
New	58%	67%

## Charter high school performance is mixed

As was true at the elementary and middle-grade levels, the students in charter high schools tended to be more advantaged than those in regular high schools, but the differences were much less pronounced. When it came to the teaching force, however, charter high school teachers tended to lack credentials and experience by even wider margins than was true at the other two levels. The charter schools were also dramatically smaller. The high mobility rate, measured by the percentage of students who first attended the school in the present year (students in the school's lowest grade are excluded from the calculation), may reflect how many new charter high schools came into operation during the 2003–04 school year.

### Charter high schools do well meeting API growth targets

For the 2003 Base/2004 Growth API cycle:

- 120 charter high schools were in the API system of accountability.
- 71 schools (59%) had the data necessary to determine whether they met their growth targets, compared to just 10 schools in the 1999/2000 cycle.
- Of those 71 schools, eight were conversions and 63 were start-ups; 46 were classroom-based and 25 were nonclassroom-based.
- These 71 schools had 29,032 students.

The number of charter high schools in the state's main accountability system has nearly quintupled since it began in 1999. From the 25 schools that were in the system in the first year, the number has increased to 120 in 2004. Of those schools that were open in 1999, 19 were still operating as charters in 2004. But a large group of newer schools has entered the scene in recent years. As a result, any

## Key Characteristics of California High Schools† in 2003–04

**Statewide average:** shows the percentage of high school students or teachers in each category statewide.

**Median:** shows the percentage for a "typical" school—one at the 50th percentile for a given characteristic. Equal numbers of schools have higher and lower percentages.

**Range for middle half:** shows the percentages for the schools at the 25th and 75th percentiles. It provides a sense of how schools within each group vary and how charters and noncharters differ as well.

Student Characteristics (Statewide Average)	Charter Schools (n=151)	Noncharter Schools (n=1,167)
	Median Range for Middle Half	Median Range for Middle Half
English Learners (15%)	7%** 2%–20%	11%* 4%–22%
Hispanic (34%)	24% 9%–48%	28% 13%–52%
White (44%)	46% 13%–72%	44% 19%–70%
African American (8%)	6% 1%–17%	3% 1%–9%
Asian (7%)	1% 0%–3%	3% 1%–9%
Free/Reduced Price Meals (28%)	16%* 0%–49%	20%* 7%–46%
Parents Not High School Grads (18%)	10%** 3%–23%	14%* 5%–26%
One+ Parent a College Grad (22%)	22%** 16%–34%	21%* 14%–30%
Student Mobility (22%)	48%** 20%–66%	11%* 7%–16%
<b>School Characteristics</b>		
Enrollment (average size 1,347)	181 101–413	1,501 306–2,294
Teachers Not Fully Credentialed (12%)	40% 17%–60%	7% 1%–15%
Teachers in First Two Years (14%)	33% 20%–50%	10% 5%–16%

DATA: CALIFORNIA DEPARTMENT OF EDUCATION (CDE)—CBEDS

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comparison between charter high schools in the two time periods is less an indication of improvement than a snapshot of two very different populations' performance.

Figure 6 indicates the number of charters and noncharters that have met their

API growth targets over time (see the API box on page 4 for further explanation). Except in the 2002/2003 cycle—when charters did not do quite as well as traditional high schools—the charter schools with API data have outperformed noncharters by healthy margins. In the

**figure 6 | High schools that made API growth targets**

	Two-year API Base/Growth Cycle				
	1999/00	2000/01	2001/02	2002/03	2003/04
Number of charters in API accountability system	25	19	20	34	120
Number of charters with growth data	10	13	17	25	71
Percent of charters with growth data making growth targets	60%	38%	41%	64%	58%
Percent of noncharters making growth targets	41%	27%	29%	67%	49%

- It is more meaningful to compare percentages within individual API cycles because of the growing number of charter high schools and the changing index used to measure school performance (the API).
- The bottom two rows reflect the schools with API data in both years of a given two-year API cycle.

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2003/2004 cycle, 58% of charter high schools met their growth targets compared to 49% of traditional high schools.

It is also notable that charter high schools were able to post an average gain of 17 points in this API cycle, which compared favorably to noncharters' average of 13 points. One factor that could explain some of this difference is that, at least in the 2003 state rankings, 20% of charter high schools were in the bottom decile. Those charters in particular had quite a bit of room to grow, achieving an average of 35 points of growth in the 2004 Growth API.

#### *Absolute comparisons based on 2004 Base API ranks paint a negative picture for high schools*

In the 2004 Base API, 124 charter high schools achieved the following rankings:

- High-performing, deciles 8–10: 22% (27 schools)
- Mid-performing, deciles 4–7: 27% (33 schools)
- Low-performing, deciles 1–3: 52% (64 schools)

Unfortunately, 27 charter high schools were missing data and are left out of any analysis.

Start-ups formed the vast majority of the 124 schools, and they were spread

among the decile ranges. The nine conversion schools with decile ranks, however, were over-represented among the higher deciles. Another noticeable trend was that the 45 nonclassroom-based schools were generally found in the lower deciles, with only four schools in the upper range. Also, an additional 19 nonclassroom-based schools did not have rankings. Finally, the bulk of the 27 charter high schools in the high-performing category (deciles 8–10) were start-up schools that provide classroom-based instruction.

#### *Charter high schools tended to be at the extremes in the 2004 similar schools rankings*

Only 76 charters were included in the rankings—meaning that they had more than 100 test scores. On this measure, charters tended to be at the extremes, doing quite well or not well, with relatively few in between.

- High-performing compared to similar schools, ranks 8–10: 42% (32 schools)
- Mid-performing compared to similar schools, ranks 4–7: 16% (12 schools)
- Low-performing compared to similar schools, ranks 1–3: 42% (32 schools)

As was true with statewide ranks, nonclassroom-based schools tended to earn low marks, with 19 of 31 schools in the bottom 10%. (Here it is important to remember that this type of charter often serves students who are there because of a lack of fit with mainstream schools and that nonclassroom-based charters have quite high mobility rates.) In contrast, classroom-based charter high schools generally did well compared to similar schools, with more than 60% reaching the higher decile range. Newer schools also tended to rank high among comparable schools.

#### *In 2005 charter renewal requires a new minimum performance standard*

California's initial charter legislation included the specific expectation that charter schools would be accountable for student performance when they applied for charter renewal every five years. At the time, however, the state did not have the comprehensive testing and accountability systems it has since developed. The definition of acceptable student performance was left to school organizers and their chartering districts to determine. This changed in 2003 when lawmakers set minimum expectations for charter school performance based on the API.

Beginning in January 2005, a charter school requesting renewal must either:

- meet its API growth targets (in the prior year, in two of the last three years, or in the aggregate for the prior three years); or
- rank in at least Decile 4 on its Base API (using either state or similar schools rankings in the prior year or in two of the last three years); or
- qualify for the Alternative Schools Accountability Model.

Between January and August 2005, the 80 charter schools up for renewal will be the first to be affected by the new law. Among those schools, 78% have satisfied at least one of the renewal criteria. The remaining 18 schools lack the relevant

data. Under Assembly Bill (AB) 1137, if a charter school cannot show that it met one of the performance criteria described above, the charter-granting authority must determine that the academic performance of the charter school is at least equal to that of the public schools the charter school pupils would otherwise have attended and the schools in the local district that have similar racial compositions. The California Department of Education reviews the chartering agency's analysis and makes a recommendation to the agency regarding the school's renewal.

Another 72 charter schools will be up for renewal between September 2005 and August 2006. Based just on their API information from 2002 to 2004, 71% have already qualified for renewal. Eight schools have not yet met the criteria, and 13 lack the relevant data.

### Research findings conflict in charter/noncharter comparisons

A number of state and national studies have attempted to address whether the academic performance of students in charter schools is better, worse, or comparable to those who attend noncharter schools. Invariably proponents and opponents of charters gather around each new study, mining it for evidence to support their arguments. All of these studies, however, are subject to criticism because of the many challenges previously described in this report. They also all use different methodologies. It may not be surprising, then, that they all seem to come to somewhat different conclusions.

#### National studies are particularly complex

National studies face a particularly difficult challenge because researchers must first somehow choose among the varied types of test data available.

Much of the national research has depended on the National Assessment of Educational Progress (NAEP) as its

measure of performance. NAEP is the only assessment taken by students in every state, but it has certain limitations because only a portion of students take it and each student takes only a portion of the test items for a given subject. A 2004 report by the American Federation of Teachers (AFT) generated headlines and subsequent controversy by claiming that fourth and eighth grade students in charter schools were scoring lower on NAEP than their counterparts in noncharter schools. Entitled *Charter School Achievement on the 2003 National Assessment of Educational Progress*, the report compared NAEP reading and math scores in a nationally representative sample of charter and noncharter public schools. Critics say the report looked at schools serving just 3% of charter school students nationwide. (See page 21 for more about this study.)

Other researchers have used state testing system results as their measure of performance. One such study pronounced that charters were doing better than regular schools. Caroline Hoxby of Harvard University and the National Bureau of Economic Research authored *A Straightforward Comparison of Charter Schools and Regular Public Schools in the United States* in 2004, on the heels of the AFT report. She compared the reading and mathematics proficiency of elementary charter school students to noncharter students based on the specific tests given in their respective states. She found that charter schools outscored the nearest noncharter public schools. Hoxby also looked specifically at California schools. (See page 21 for more about this study.)

Again, these two national studies—and many others—have both supporters and detractors. The same is true of the California-based studies that have been done.

#### California studies differ in their methodologies and their conclusions

Researchers who have compared the performance of charters to noncharters

in California have also used different data sets and analytical methods, and they have reported different results. Studies considering only API scores as issued by the state concluded that charter schools performed somewhat better. However, researchers with access to student-level—as opposed to only school-level scores—found that regular public schools did slightly better, though not always by a statistically significant margin.

One of the most substantial of these studies was done by RAND and overseen by the Legislative Analyst's Office. This July 2003 study, *Charter School Operations and Performance: Evidence from California*, compared the performance of charters and noncharters and also looked at how performance varies among different kinds of charter schools. The authors also did analyses using both the API and SAT-9 (Stanford Achievement Test, 9th Edition) test scores. Their conclusions were slightly mixed with respect to comparisons between charters and regular schools and among various types of charters. (See page 22 for more about this study.)

David Rogosa, an education professor and statistician at Stanford University, has been vocal in charter school research, sometimes critiquing other researchers' work. In 2003 Rogosa used his unusual expertise on the API to develop and publish an analysis that depended on student-level data to simulate API scores for the years 1999 to 2002. These mock APIs were constructed entirely with scores from the nationally normed SAT-9. His analysis showed that the performance of charter school students varied depending on students' grade level and socioeconomic status. (See page 23 for more about this study.)

These California studies—and others that have been done—primarily reflect performance on the SAT-9, the state's basic skills test used from 1998 through 2002. To a great degree, they pre-date the California standards tests

## California standards tests provide a reliable though imperfect basis for comparison

Evaluations of academic performance would ideally consider more than just standardized test scores. However, in California the STAR tests are the only academic measures with the qualities necessary to make a valid comparison between schools, including the comparison of charters and noncharters.

### Using STAR tests to compare schools has several advantages

- All schools arguably have access to the material covered on the STAR tests.
- The assessments have been screened for ethnic bias, for being a reasonable gauge of what they are purported to measure, and for being reliable—meaning that if two highly similar students took the test, they would get similar scores.
- The tests are secure: teachers and students do not know in advance what the exact questions will be.
- Virtually all students in both types of schools take the STAR tests. As a result, it is unlikely that, for example, only the stronger or weaker students are taking the test in one type of school or the other.

### The STAR program does not directly measure the “value added” by individual schools

The data only provide annual snapshots of how each group of students perform on a particular test. Given the state’s still-developing data system, the performance of last year’s third graders can be compared to this year’s third graders, but the progress of one group of third graders over time is not measured. Were last year’s third graders to be compared to this year’s fourth graders, other data problems could arise related to the connection between third and fourth grade tests and changes in the groups of students tested due to student mobility.

(CSTs), which assess students’ proficiency on the state’s adopted content standards and which have been incorporated into accountability measures more recently. This is because the studies were done before multiple years of CST data were available. The emphasis on SAT-9 data may make the performance assessments somewhat less meaningful in today’s standards-focused context. They also contrast with the general finding noted previously that charter school performance on the API has improved since 2003 when the standards-based tests took on more weight in the index.

### EdSource tries another approach

Along with the controversies, each successive analysis directly comparing the academic performance of charter and noncharter schools has helped to show how complicated such comparisons can

be and how the results can vary. EdSource used that growing knowledge base to guide yet another attempt to answer the most commonly asked question: *Are charter schools more successful, less successful, or simply comparable to noncharters in their ability to improve student performance?*

### Prior research highlights shortcomings of the API

The earlier studies mentioned above—particularly the California studies—influenced the way that EdSource approached this question. The first consideration was to make sure the measure of performance looked at improvement over time and did so in a thoughtful way. Second, the schools being compared were selected carefully to ensure that they face similar challenges with respect to student demographics and that their starting points, in terms of

performance, were similar. Comparing charters and noncharters that are comparable in both respects makes it possible to focus more closely on the direct impact of charter status on improvement in student achievement.

To meet these criteria, this analysis focuses on a small number of well-established charter and noncharter schools and on discrete performance measures. As such, the findings cannot be used to generalize about all areas of student performance or all charter schools. In particular, it could be argued that it distorts charter school achievement by focusing only on the more stable charters. The 89 charter schools selected serve a total of 53,473 students in 2003–04.

EdSource’s analysis is noteworthy because it uses scores on the CSTs rather than the state’s API or SAT-9 scores. The CST data provide more detailed information than API scores, and they are salient in California’s new accountability climate under the federal No Child Left Behind Act (NCLB).

The experience of the RAND researchers influenced this decision. In its evaluation of California charter schools, the RAND team used API scores for a variety of reasons. They found, however, that because the index aggregates all test scores in a school into one number, it obscures important information. Further, the weight given to various components of the index is based on a policy decision by the State Board of Education. For example, in elementary schools, English scores count for 60% of the API and math scores count for 40%. If one wants to know how students in a particular grade or subject did—or if one disagrees with the board’s weighting of various subjects in the index—API scores are not satisfactory.

In addition, the API system divides schools into three broad school types—elementary, middle, and high. Because grade configurations within each type



vary, and score growth varies within each grade, school-level API scores do not offer precise “apples to apples” comparisons.

As an alternative to the API, RAND and other researchers used SAT-9 test scores for analyses of charter performance. Now, however, schools and districts are focused on increasing the percentage of students scoring “proficient” or above on the CSTs. And multiple years of data on these tests are now available. Along with new weighting in the API, accountability for “adequate yearly progress” under NCLB makes these tests more important.

### EdSource comparison uses CST scores

EdSource compared growth in the percent of students scoring proficient or above on math and English CSTs in charters and noncharters between 2002 and 2004. The analysis includes only scores from grades 3, 7, and 10 in English and only grades 3 and 7 in math. (Students take different math CSTs in grades 8–11 based on the course they are taking. As a result, it is not sound to compare schools’ scores on math CSTs beyond grade 7. The exit exam, a uniform statewide measure, is more appropriate. Those scores are discussed earlier in this report.)

NCLB has encouraged California schools to focus on increasing the percentage of students scoring proficient or above on English and math CSTs. However, a substantial portion of students still score at the lowest proficiency level, “far below basic.” Helping them improve is also an important goal. The EdSource analysis therefore also considers schools’ ability to decrease the percentage of students scoring at this lowest performance level.

### The results show strong performance among established charter schools

Using a carefully selected subset of schools, EdSource made two comparisons. One compared the amount of improvement that a group of charter

## Creating the EdSource dataset

To set up a comparison of charter and traditional public schools, EdSource combined data from three electronic files provided on the California Department of Education website: 1) CST scores in English language arts and math, 2) student demographics, and 3) the “school characteristics index” (SCI) scores for similar schools rankings. The data pertain to the 2001–02 through 2003–04 school years.

Schools had to fit specific criteria to be used in the analysis, including:

- **Any school that experienced a significant demographic change in its student body was removed from the analysis.** A “significant demographic change” is defined as a change of more than 10 percentage points in more than one of the following categories: English learners, students eligible for free/reduced-price meals, ethnic groups, and parental education levels (e.g., percent of students with at least one college-educated parent).
- **Only schools that had been open since at least 2000–01 were included.** Given that many start-up charter schools face cash flow and facilities challenges in their early years, only start-ups that had been open since 1999–2000 were included.
- **To measure challenge, EdSource used the school characteristics index (SCI).** The CDE computes the SCI each year as a first step to creating the “similar schools” rankings in the Base API. Elementary, middle, and high schools have different SCIs. Thus an elementary school with an SCI of 150 has a different challenge level than a middle school with the same SCI. Because so many charter schools have nontraditional grade configurations (e.g., some charters with 3rd graders are classified as middle schools), EdSource could not simply use charter schools’ SCI scores to find comparable noncharter schools. Instead, EdSource ranked schools of similar type (elementary/middle/high) according to their SCI and assigned each

school a percentile ranking. With those percentile rankings, EdSource could compare two schools serving a common grade based on their rankings, regardless of whether they were elementary, middle, or high schools. For example, an elementary school at the 30th percentile in its SCI rankings and serving third graders could be compared to a middle school at the 30th percentile in its SCI rankings and serving third graders. For a noncharter to be compared to a charter, its SCI percentile ranking had to be within five percentile points of the charter’s SCI percentile ranking.

- **For two schools to be compared, they also had to be similar in their starting points vis-a-vis student performance.** In 2002, the schools were within five percentage points of each other in their percentage of students scoring proficient and above, or in those scoring far below basic. For example, an elementary charter school at the 65th percentile on the SCI with 35% of its third graders scoring proficient and above could be compared to any school ranking from the 60th to 70th percentile on the SCI and with 30% to 40% of its third graders scoring proficient and above.

In the end, 89 charter schools and 5,762 traditional public schools met all the criteria. Schools serving more than one of the relevant three grades—3, 7, and 10—were used in more than one grade-level analysis. For example, if a school served grades K–8, its grade 3 scores were used in the analysis of grade 3 performance, and its grade 7 scores were used in the grade 7 performance analysis. A handful of the charter schools that performed considerably better or worse than schools facing similar challenges did not have a comparison group and were not included in the school-level matchups. Noncharters that were similar to multiple charter schools were assigned to multiple comparison groups.

schools made to the improvement of a group of similar noncharter schools. The other looked at the percentage of charter schools that showed more improvement than their comparison schools.

Charters outperformed noncharters in both cases. The first analysis found that charter students showed slightly greater improvement than those in noncharters on the English and math CSTs from 2002 to 2004. The second analysis showed charter schools performing better in a majority of direct comparisons between a charter school and a group of similar noncharters. (For more details on how EdSource narrowed the set of schools for its analysis, see the box on page I7.)

Each combination of grade, subject, and performance level—for example grade 3, math, proficient and above—was considered separately. For each school, the percentage scoring at a particular performance level in 2002 was subtracted from the 2004 percentage. *That improvement in percentages was the important variable for both analyses.* (“Improvement” was counted two ways: as an increase in the percent of students scoring proficient and above, and as a decrease in the percent scoring far below basic.) It is important to note the improvement is between two different groups of students—for example the third graders of 2002 and the third graders of 2004.

### CST scores for charter students improved by greater margins

In the first computation, each school’s improvement level was weighted by the number of test-takers. The averages were then calculated for the charter and noncharter groups. Taking a weighted average creates (figuratively speaking) one big charter school and one big noncharter school.

Figure 7 shows the weighted average improvement for students in charter schools and in the comparison noncharter schools in each grade, subject, and proficiency level. On all 10 comparisons, the students in charter schools improved

figure 7

## Scores for charter school students improved more than those for comparable noncharter students from 2002 to 2004

Average percentage-point change in students scoring..				
	Proficient and Above		Far Below Basic	
	Charter	Noncharter	Charter	Noncharter
<b>English Language Arts</b>				
Grade 3	-1.8	-2.4	-0.8	0.9
Grade 7	5.1	4.3	-1.8	-0.9
Grade 10	6.6	3.0	-2.5	-0.3
<b>Math</b>				
Grade 3	12.5	11.1	-7.0	-3.2
Grade 7	5.6	4.3	-1.6	0.2

DATA: ADAPTED FROM CALIFORNIA DEPARTMENT OF EDUCATION (CDE)—STAR RESEARCH FILES

EdSource 5/05

their scores more than noncharters. This means that the charters studied were better than their comparison schools at increasing the percentage of high-scoring students and reducing the percentage of low-scoring students. Although the differences appear small—ranging from 0.6 percentage points to 3.8 points—they are statistically significant, meaning that they fall outside the typical range of random variation. The smallest gap between charters and noncharters was in third grade English for high-scoring students. Both groups actually declined in that percentage from 2002 to 2004, but charters did so by slightly less (-1.8 vs. -2.4 percentage points).

The greatest gap was also in third grade, but on math scores. There, charters decreased the far below basic group by 7 percentage points versus 3.2 points for noncharters. The differences in improvement in 10th-grade English scores were also relatively large.

Even the largest differences *between* charters and noncharters, however, are not as large as the variation *within* each type of school. For example, in grade 7, English, proficient and above, one charter school declined by 16 percentage points while another improved by 29 points. That 45-point difference *within* the charter group compares to a difference of less

than one percentage point *between* charters and comparison noncharters.

### School-level comparisons also show greater improvement among charters

For the second analysis, EdSource calculated the percentage of charters that showed more improvement than their comparison schools did. Each charter school’s improvement was compared to the weighted average improvement of its noncharter comparison schools.

Figure 8 shows the number and percent of charter schools that outperformed their comparison schools. Charter schools generally did better than their comparison groups. Again, the comparisons look both at schools where more students improved into the “proficient and advanced” performance bands, and at those where more students improved out of the “far below basic” band. In eight of the 10 separate comparisons—based on grade levels, subjects, and performance bands—a majority of charters outperformed their noncharter comparison group.

The comparison in which charters were least successful, with just 43% “winning,” was in Grade 3 math in the proficient-and-above performance band. On the other hand, 73% of charter schools outperformed their comparison

**figure 8** | Number and percentage of charter schools that improved more than their comparison schools

Change in percentage of students scoring at specified levels on California standards tests from 2002 to 2004

	Proficient and Above		Far Below Basic	
	Number of Comparisons	Number (and percent) of Times Charter Outperformed Comparison Group	Number of Comparisons	Number (and percent) of Times Charter Outperformed Comparison Group
<b>English Language Arts</b>				
Grade 3	65	29 (45%)	67	35 (52%)
Grade 7	46	26 (57%)	47	26 (55%)
Grade 10	19	12 (63%)	19	11 (58%)
<b>Math</b>				
Grade 3	68	29 (43%)	66	34 (52%)
Grade 7	48	29 (60%)	48	35 (73%)

DATA: ADAPTED FROM CALIFORNIA DEPARTMENT OF EDUCATION (CDE)—STAR RESEARCH FILES

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schools in decreasing the percentage of 7th graders scoring in the far-below-basic band on the math CST.

The results also reinforced a familiar pattern in charter school achievement: conversion schools outperformed start-ups (with seventh-grade English the one exception). Consider the example of third-grade English, in which 45% of charters prevailed based on the percentage of students scoring proficient and above. Among conversion schools, 50% outperformed their comparison schools while 32% of start-ups beat their comparison schools.

This analysis also varied in an important way from the API comparisons provided earlier in this report. Classroom-based charters did not always outperform their nonclassroom-based counterparts. For example, in 7th grade English, 10th grade English, and 7th grade math, nonclassroom-based schools outperformed their comparison noncharter schools more often than the classroom-based charters beat out theirs.

On the other hand, subdividing charter schools by type revealed that charters that were both conversion and

classroom-based fared better than schools that were both start-up and nonclassroom-based. (Schools are not subdivided into “established” and “new” in this analysis because all schools included in the dataset met EdSource’s definition of “established.”)

#### EdSource finds noteworthy patterns, but more study is needed

Many studies of charter school performance focus on the viability of the charter approach. Often, the explicit or implied conclusion is that this educational experiment either should or should not continue. But as the analyses presented in this report make clear, there is not a preponderance of evidence that makes an “up or down” vote on the charter school concept obvious or even desirable.

More than 500 charter schools are in operation today in California and some of them have been open for more than a decade. It behooves educators, policymakers and the public to learn more about the schools themselves, their successes, and their failures. There are also many questions to be explored in regard

to the best role they can play in the public education system and what conditions make them most successful.

#### Key findings provide a fresh and revealing look at charter performance

Using state testing data, EdSource found several patterns of charter school performance that are particularly noteworthy. Collectively they present some reasons for optimism and some causes for concern. They also raise a number of interesting questions that should be explored more thoroughly.

**Missing test data from a large percentage of the state’s charter schools undermines the ability to assess their academic performance and thus their effectiveness as an alternative learning environment for some students.** For the 2004 Growth Academic Performance Index, about 23% of the charter schools in the state’s API system lacked sufficient test data to even receive API scores. That compares to just 6% of the noncharter schools in the API system. Only 13% of classroom-based charter schools were missing data, while 46% of nonclassroom-based charter schools did not administer the state’s standards based tests to enough students to yield official API results. (See page 6.)

**Among charter schools with data, particularly classroom-based charters, improvement meeting academic growth targets is particularly notable.** The relative performance of charters started to improve in 2003 when API scores began emphasizing the California standards tests instead of off-the-shelf norm-referenced tests. In 2004, 64% of classroom-based charters (which constitutes 60% of all charters) met their 2004 API growth targets, outperforming both noncharter schools (48%) and the nonclassroom-based charter schools (44%) for which data is available. (See page 8.)

**Elementary charters lag behind non-charters on Base API scores, but have recently done better meeting growth**

**targets.** In an absolute comparison between all elementary charters and noncharters, the charter schools on average have slightly lower 2004 Base API scores. This is in spite of the fact that elementary charter schools serve a smaller proportion of English learners and low-income students than their noncharter counterparts. However, charter elementary schools have improved the rate at which they meet their API growth targets. In 2004 the group of elementary charters was the first to outperform noncharters, with 57% of them meeting their targets compared to 46% of noncharters. (See page 9.)

**The small group of charter middle schools performed quite well.** Just 31 charter middle schools were included in the state's accountability system in 2003/2004 and that small number tempers any assertions about the academic performance of charters serving this age group. That said, among the 27 of those charter middle schools that had 2004 Growth API scores, 81% met their growth targets (compared to 54% of noncharter middle schools). (See page 11.)

California's middle grades charter schools on average serve fewer disadvantaged students than their noncharter peer schools. While it is therefore not surprising that they ranked relatively high on their 2004 Base API scores, they also compared favorably to noncharter middle schools with similar students based on the state's similar schools rankings.

**Firm conclusions about charter high school achievement are problematic.** Charter high schools increased in number very quickly, going from 34 schools with API growth data in 2003 to 120 in 2004. Most of these new charters are start-up schools that tend to differ substantially from noncharters in the students that they serve and the teachers that they employ. (See page 13.)

More than half of charter high schools ranked in Deciles I–3 (the bottom 30%) based on the 2004 Base

API. But comparing them to noncharters serving similar students nets more mixed results, with equal proportions comparing well and poorly. In terms of improvement, missing data is again a challenge. Just 71 high schools had growth data for the 2003/2004 cycle. Of those schools, 58% met their growth targets compared to 49% of regular high schools.

**In an EdSource study that matched 97 well-established charters against a large group of comparable noncharters, the charter schools' test scores generally improved more than those of noncharters.** Based on an analysis of California standards tests (CSTs) for grades 3, 7, and 10 in English and grades 3 and 7 in math, charters did slightly better at increasing the percentages of students scoring "proficient and above" and decreasing the percentage scoring "far below basic" from 2002 to 2004. The differences appear slight, but they are statistically significant—meaning outside the normal range of random variation. (See page 16.)

In eight out of 10 sets of school-level comparisons between charters and noncharters, a majority of charters showed more improvement on the math and English CSTs from 2002 to 2004 than their comparison noncharter schools:

- Charters serving grade 3 students outperformed their comparison noncharter schools in improving their percentages scoring "far below basic" but not those scoring "proficient and above."
- A majority of charters serving grade 7 students outperformed their comparison schools in both subjects and at both score levels.
- In 10th grade English, a majority of charters showed greater improvement than their matched noncharters at both score levels.

#### **Continued study of California charter school performance is important**

State and federal policymakers are eager to find solutions for the state's chroni-

cally low-performing schools. Under the No Child Left Behind Act, turning them into charter schools is one option, but is conversion to charter status an effective solution?

Not necessarily, but it might be under certain circumstances. Just as in the regular public school system, the charter community has examples of both low-performing and exemplary schools. Before state and local policymakers advocate the use of public tax dollars to convert low-performing public schools to charter status, they should closely examine the types of charter schools that are succeeding, for what kinds of students, under what conditions.

That said there are real success stories among charter schools. Many of them are providing exciting learning environments. And many are successful serving students who for various reasons have not found a good fit in a regular public school setting, including many low-income children of color. Of particular note is the burgeoning use of charters as a strategy for addressing the stubborn challenges of high school reform, particularly in disadvantaged communities.

In addition—based on state testing data—charter schools have recently started to make impressive gains, improving performance and meeting academic growth targets faster than noncharters in many cases. The charter API growth data for 2004 is definitely promising, but one year does not yet make a trend.

California's charter school experiment can be a lightning rod for conflicting political views. But students and the state would be better served if charter schools were instead seen as laboratories of school improvement that add to the information researchers, educators, and policymakers can use to make sure that every child has an opportunity for academic success in the state's public schools. ■■

## National and California studies of charter school performance

### CONTROVERSIAL REPORT CLAIMS CHARTERS NATIONALLY FALL SHORT OF EXPECTATIONS

In 2004, in a national report titled *Charter School Achievement on the 2003 National Assessment of Educational Progress* (NAEP), the American Federation of Teachers (AFT) compared NAEP reading and math scores in a nationally representative sample of charter and noncharter public schools. The paper reportedly looked at schools serving about 3% of charter school students nationwide.

The NAEP reports include the percent of students scoring at four proficiency levels and an average “scale score” that reflects the difficulty of the questions answered correctly. In each state, only a sample of students take the test, and students take different portions of the test.

#### Charter students in grades 4 and 8 score below noncharter students on NAEP

AFT found that fourth graders in charter schools scored an average of six points lower on the scale (228 vs. 234) in math and seven points lower (210 vs. 217) in reading. Charter students in eighth grade scored five points lower in math and two points lower in reading. AFT stated that, with the exception of eighth grade reading, the results were statistically significant. (Statistical significance is reached when differences are outside the typical range of random variation.) AFT estimated that the differences between charter and noncharter performance translate to about half a school year.

AFT also disaggregated the data by poverty status, locale, and ethnicity, finding similar differences for low-income students. However, when students were compared only to those of the same ethnicity, or from similar locales, the differences were much less. An exception was in central cities, where fourth grade charter students trailed by seven points in math.

#### A group of researchers questions the AFT analysis

A group of researchers from across the country faulted the report for relying on limited student background information and considering only one background factor at a time rather than considering all available factors simultaneously. (For example, focusing on race does not take into account differences in average income among races. Looking at all background factors together allows a researcher to isolate the impact of each factor.) In addition, they criticized the report for ignoring important student background information and for only examining test scores for one point in time.

For a copy of the AFT report, go to [www.aft.org/pubs-reports/downloads/teachers/NAEPCharterSchoolReport.pdf](http://www.aft.org/pubs-reports/downloads/teachers/NAEPCharterSchoolReport.pdf). It includes a subset of data for California students.

#### 2003 PILOT STUDY USING NAEP RESULTS ALSO AVAILABLE

This study looked at fourth grade math and English performance at 150 randomly selected charter schools. For a copy go to: <http://nces.ed.gov/nationsreportcard/pdf/studies/2005456.pdf>

### ECONOMIST COMPARES WITHIN STATES, FINDS MORE POSITIVE RESULTS, AND ALSO RECEIVES CRITICISM

In a study of charter school performance entitled *A Straightforward Comparison of Charter Schools and Regular Public Schools in the United States*, Harvard economist Caroline Hoxby compared the reading and mathematics proficiency of charter school students to noncharter students based on state-specific tests. She generally dealt with fourth graders' scores but used grades 3 or 5 in cases where grade 4 data were unavailable.

The charter schools were compared to the schools that their students would most likely otherwise attend—the nearest noncharter school—and also to the nearest noncharter with a “similar racial composition.” In 92% of the cases, the noncharter that had the similar racial composition was also the closest school. Hoxby's report states that she covered about 99% of the nation's fourth grade charter school students. (Presumably she meant 99% of charter students who were tested, not all students.)

#### Fourth grade score comparisons yield good news for charters

Based on both reading and math test scores, Hoxby found that charter schools outscored the nearest noncharter public schools. The percent of students proficient in reading was four percentage points higher, and in math the advantage was two points. When compared to the nearest regular public school with a demographically similar student body, charter schools showed a five percentage point advantage in reading and a three point lead in math.

Hoxby reported data for those states with statistically meaningful populations of charter school students, generally more than 200. That included California.

To get a copy of Hoxby's study, including the California results, go to: [www.wacharterschools.org/learn/studies/HoxbyCharters\\_Dec2004.pdf](http://www.wacharterschools.org/learn/studies/HoxbyCharters_Dec2004.pdf)

#### Hoxby's methods have been questioned

In a paper titled *Advantage None: Re-Examining Hoxby's Finding of Charter School Benefits*, the Economic Policy Institute (EPI) asserts that the professor's analysis does not adequately control for student backgrounds. When EPI analyzed Hoxby's dataset and controlled for race and income, it found only one state—California—where reading scores were higher to a statistically significant degree in charters as opposed to noncharters. It found no states where charters had a statistically significant edge in math.

To get the EPI critique, go to: <http://epinet.org/content.cfm/bp158>

#### SRI INTERNATIONAL REPORT LOOKS AT FIVE OTHER STATES

This analysis of charter schools' ability to meet performance standards in five states—Texas, Colorado, Illinois, Massachusetts, and North Carolina—is available at: [www.sri.com:8000/policy/cep/choice/PCSP\\_FinalReport\\_2004\\_OPA\\_approved.pdf](http://www.sri.com:8000/policy/cep/choice/PCSP_FinalReport_2004_OPA_approved.pdf)

### **RAND STUDY LOOKS AT BOTH API AND SAT-9 SCORES IN CALIFORNIA, WITH MIXED RESULTS**

Called for in legislation and overseen by the Legislative Analyst's Office (LAO), the RAND report—*Charter School Operations and Performance: Evidence from California*—compared the performance of charters and noncharters and looked at how performance varies among different kinds of charter schools. The latter analysis distinguished between charter schools based on the way they were founded (as a conversion of an existing public school or a wholly new start-up), whether their instruction follows a traditional classroom-based approach or not, and whether the school had been operating under a charter for at least three years.

#### **Based on API, charters and noncharters show no significant differences in student performance**

After adjusting for changes in demographics over time in each school, RAND compared annual growth in API scores among charters and conventional schools in the 1999–2000 through 2001–02 API growth cycles. The study found no statistically significant difference between charters and noncharters. The type of charter school did not matter either.

#### **Analysis of SAT-9 test scores showed slightly better performance for noncharters**

RAND did a separate comparison using individual students' test scores, adjusting for differences in ethnicity, parent education, English learner status, gender, and whether a given year was the student's first at the school. All of these student characteristics are correlated with student performance. Controlling for them is a way for researchers to attempt to isolate the effect the school per se has on student performance.

With these adjustments, they found some statistically significant differences in the average percentile scores of students in charter versus noncharter schools. For example:

- In math: noncharters scored higher in the elementary (49.3 vs. 47.8) and secondary (47.7 vs. 45.4) levels. ("Secondary" schools were defined as middle and high schools.)
- In reading: noncharters scored higher at the secondary (42.1 vs. 40.7) level, but scores at the elementary level were nearly identical.

#### **But classroom-based charter schools outperform noncharters**

RAND also looked at performance differences based on the type of charter school. Classroom-based charters generally scored slightly higher than regular public schools. However, the average student in schools offering nonclassroom-based instruction had scores that were between five and nine points lower. Clearly, nonclassroom-based schools bring down the average scores of charter schools.

In discussing this finding, the RAND report notes that nonclassroom-based schools may differ from others in ways not easily captured in statistics. For example, if nonclassroom-based schools are designed to help students who have left conventional public schools because of problems they have in traditional settings, then it is not appropriate to compare nonclassroom-based charters to conventional schools. Such differences in students would not show up in statistical data about whom a given school serves.

RAND also found differences between the performance of new and established charters. One interesting finding was that nonclassroom-based charter schools differed depending on whether they were less than three years old. The newer nonclassroom-based charter schools performed substantially better—from four to seven percentile points higher on the SAT-9 depending on the grade and subject. It is unclear, however, what accounted for the difference.

To see the RAND report, go to: [www.rand.org/publications/MR/MR1700/](http://www.rand.org/publications/MR/MR1700/). For the official analysis and report to the Legislature by the LAO, go to: [www.lao.ca.gov/2004/charter\\_schools/012004\\_charter\\_schools.pdf](http://www.lao.ca.gov/2004/charter_schools/012004_charter_schools.pdf)

### **STUDY BY RESEARCHERS AT CAL STATE L.A. IS GOOD NEWS FOR CALIFORNIA CHARTERS, BUT RESULTS ARE QUESTIONED**

Three researchers from California State University, Los Angeles (CSULA)—Simeon Slovacek, Antony Kunnan, and Hae-Jin Kim—used API data to conclude that charter schools did a better job of improving the performance of low-income students than regular public schools did.

In their March 2002 report—*California Charter Schools Serving Low-SES Students: An Analysis of the Academic Performance Index*—the researchers used Base API scores from 1999 through 2001 to compare the performance of charters and noncharters with a majority of students eligible for free/reduced-price meals. Their analysis of the dataset they created revealed that, in schools with at least 50% low-income students, the API scores of charters went up by 22.6% from 1999 to 2001 while the scores of noncharters improved 19.4%. The difference was more pronounced in schools with at least 75% low-income students—28.1% improvement in charter schools versus 23.8% for noncharters. The CSULA report also concluded that the type of instruction that a charter offered, its length of time open, and whether it was a start-up or conversion did not seem to make a difference in performance.

This analysis was criticized based on the quality of its dataset and the fact that it lumped all the charter schools together as one group without regard to whether the percentages of elementary, middle, and high schools are the same as in the universe of noncharter schools.

To see a copy of this study go to: [www.calstatela.edu/academic/ccoe/c\\_perc/rpt1.pdf](http://www.calstatela.edu/academic/ccoe/c_perc/rpt1.pdf)

#### **FOR ADDITIONAL STUDIES OF CALIFORNIA CHARTER SCHOOL ACADEMIC PERFORMANCE, SEE:**

- *The Performance of California Charter Schools* by Margaret E. Raymond of CREDO at the Hoover Institution at Stanford University. Go to: [http://credo.stanford.edu/downloads/ca\\_chart\\_sch.pdf](http://credo.stanford.edu/downloads/ca_chart_sch.pdf)
- *Catching the Wave: Lessons from California's Charter Schools* by Nelson Smith of the Progressive Policy Institute. Go to: [www.ppionline.org/documents/CA\\_Charters\\_0703.pdf](http://www.ppionline.org/documents/CA_Charters_0703.pdf)

**ROGOSA'S STUDENT-LEVEL ANALYSIS SHOWS MIXED RESULTS IN CALIFORNIA THROUGH 2002**

In an analysis published in June 2003, Stanford Professor David Rogosa worked with Academic Performance Index (API) scores to compare student performance in charter and noncharter schools. An expert on the API calculation and data, Rogosa developed simulated API scores for the years 1999 to 2002. These mock APIs were constructed entirely with scores from the nationally normed SAT-9 (Stanford Achievement Test, 9th Edition).

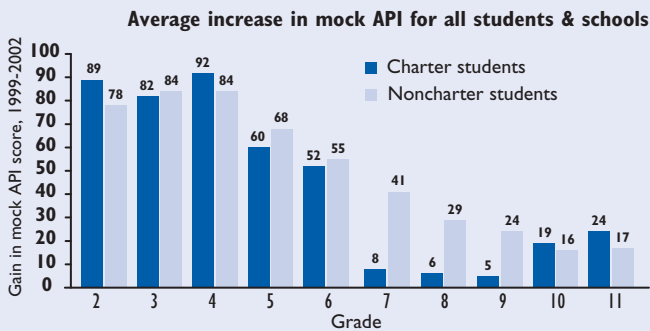
The dataset consisted of student test scores from 93 charter schools that received API scores from 1999 through 2002 and from 6,584 noncharters. (A small percentage of each type of school was missing one year's API score.)

**Charter students in most grades show less improvement than those in noncharters**

For his comparisons, Rogosa grouped the test scores from all charter students across the state by grade and computed API scores. For example, he grouped the scores of all second grade students from all of California's charter schools and computed an API score as if they attended one large charter school. He did so to avoid comparing, for example, charter schools with grades 3-6 to regular schools with grades 2-5 because different grades have shown different levels of score-growth. Rogosa was able to create these mock API scores because he had access to student-level data.

Rogosa showed results that varied by grade level and by students' socioeconomic status. As the table below shows, at four grade levels (2, 4, 10, 11) charter students showed greater improvement (3-11 API points) from 1999 to 2002, but in the other six grades, noncharter students demonstrated better gains (2-33 points). The number of charter schools contributing scores from 10th- and 11th-grade students was small, as was the number of scores.

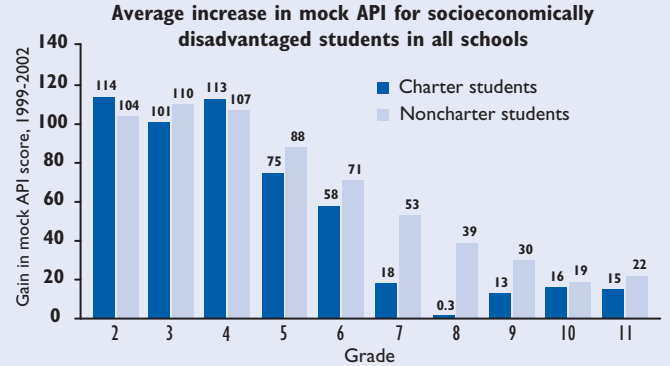
**Grade-by-Grade Score Improvement on a "Mock API" from 1999 to 2002**



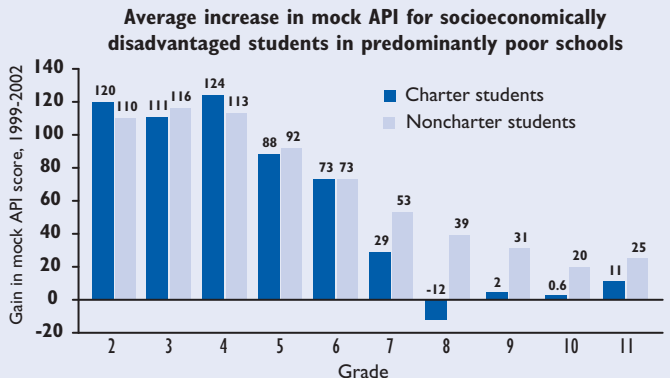
**Results for disadvantaged students also show noncharters doing better**

Rogosa also compared the performance of socioeconomically disadvantaged students based on the concentration of poverty in their schools. He found that those attending noncharters tended to show greater gains. Whether the disadvantaged students were in the minority or majority at their school, they tended to do better in noncharter schools—quite substantially in some grades. Taking

all schools into consideration, disadvantaged noncharter students showed more improvement than charter students in eight of 10 grades tested (3-39 more points).



Among schools in which at least half of students were disadvantaged, noncharter schools showed more improvement with their disadvantaged students in seven of 10 grades (3-51 more points).



**Charter schools look better in simulation of schoolwide APIs**

Rogosa also simulated schoolwide APIs by aggregating grade-level scores into groupings of grades 2-6, 2-8, 9-11, and 2-11. With this level of analysis, the performance gap between charters and noncharters narrowed—and in some cases reversed. For example, when test scores for all charter school students in grades 2-6 are combined to produce API scores for 1999 through 2002, the students gained 76 API points over the three years versus 74 points for noncharter students. However, students in charter high schools showed 15 points of growth while noncharter high school students gained 20 points.

A copy of this study is available at:

[www-stat.stanford.edu/~rag/api/charter9902.pdf](http://www-stat.stanford.edu/~rag/api/charter9902.pdf)

## ● | To Learn More

### Studies of charter school performance

Various national and California studies are described on pages 21 to 23 of this report. Website addresses indicate where copies of these studies are available.

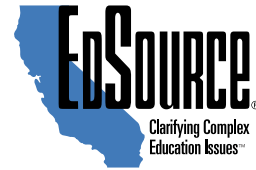
### Data about individual charter schools in California

The Ed-Data Partnership website—at [www.ed-data.k12.ca.us](http://www.ed-data.k12.ca.us)—provides a wealth of data about every charter school in California, including student background, staffing information, and summary AYP and API reports. Data as far back as 1992–93 is available on the site.

In addition, a new “Compare Schools” feature on Ed-Data enables you to develop customized reports comparing schools you select. You can also use the “Highest/Lowest” feature to create lists of California charter schools you would like to see. For example, you can create a list of the 20 charter high schools with the highest enrollments, or all of the elementary charters that have 100% fully credentialed teachers.

### Information on charter school laws and policies

- The charter school section of EdSource Online, which includes an overview, relevant data, and a list of EdSource publications related to charter schools is at: [www.edsource.org/edu\\_chart.cfm](http://www.edsource.org/edu_chart.cfm)
- The California Charter Schools Association can be found at: [www.charterassociation.org](http://www.charterassociation.org)
- The Charter Schools Development Center’s website is at: [www.cacharterschools.org](http://www.cacharterschools.org)



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