

California's Charter Schools 2008 Performance Update





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THE FIRST CHARTER SCHOOL IN CALIFORNIA

opened 15 years ago. Today, the number of charters exceeds 600.

Although their growth has been steady, charter schools still constitute just 6.4% of all public schools in this vast state and serve only 3.6% of public school students. In addition, their distribution across California is uneven, with about one out of every four districts having at least one charter school. In some of the state's largest districts, however, as many as 20% of the schools are charters, making them a readily available option for local parents and students.

About 84% of the state's current charter schools were started from scratch; the rest were converted from regular schools. Regardless of how they began, charter schools co-exist with the traditional public school system and, in many ways, are defined by their relationship with their neighboring public schools and their local district. For example, while

they are freer from district and state regulations than other public schools, charters must negotiate with a school district, county office of education, or the State Board of Education regarding the provisions of their charter petition and many aspects of their operation. Under state and federal accountability laws, they face the same pressure to meet performance benchmarks as other public schools. And within a given community, they offer their educational services to mostly the same families that attend other public schools.

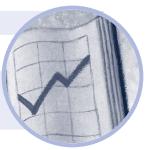
A key difference is that charter schools can only remain viable if they can attract enough students to stay open. Charter advocates argue that this choice mechanism creates strong incentives for charter schools to offer solid instructional programs tailored to students' needs.

Parents looking for a sound alternative to the local district-run school, district officials interested in improving

education, and policymakers looking for ways to boost student achievement statewide all want to know whether charters produce good results for students.

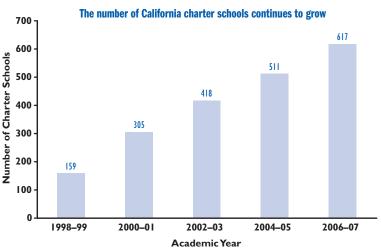
This fourth annual EdSource report on California charter performance examines student achievement as measured by state tests. Charter elementary, middle, and high schools are each compared with their noncharter counterparts. In addition, the report compares the performance of the growing portion of charters operated by charter management organizations with those that are not. The report also focuses on three large school districts with substantial numbers of charter schools, describing the context of each district and its charter segment in addition to comparing the academic performance of charters and noncharters in each. Finally, this study analyzes the effects of a new state law that sets achievement benchmarks for charter renewal.

VITAL STATISTICS



Charter Schools—Their Numbers and Enrollment

The number of charter schools in California has increased steadily since 1992, when California first authorized charter schools. In 2006-07, 617 charter schools operated throughout the state, representing 6.4% of all state public schools. Charter schools enrolled only 3.6% of the state's students because charters tend to be smaller than noncharters. California ranks 12th in charter schools and 11th in charter students, according to 2005-06 data from the National Center for Education Statistics (NCES). However, in absolute numbers, California has the most charter schools and students in the country.



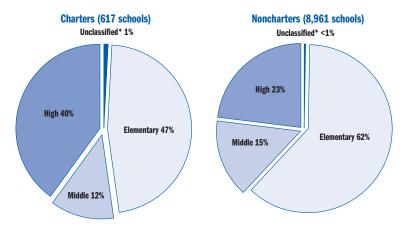
Academic Year	1998-99	2000-01	2002-03	2004-05	2006-07
Enrollment*	67,924	113,956	158,621	181,818	225,095
Percent of State's Enrollment	1.2%	1.9%	2.5%	2.9%	3.6%
* Enrollment data are not available for a few schools	each year.				

The Distribution of Schools and Students

Among the 1,034 school districts and county offices of education in California, 257 (25%) had at least one charter school. In 2006-07, that included eight all-charter districts, in which all schools in the district have converted to charter status. According to California law, a district may convert itself to an all-charter district if at least half of the teachers in the district sign a petition and the petition is approved by the State Board of Education and the superintendent of public instruction. School districts cite the expansion of parent choice, greater flexibility in the use of funds, and streamlined governance as reasons for their conversion to all-charter districts. These eight districts educated a total of about 6,300 students in 2006-07. Five of the eight districts have only one school, and the largest has five schools. Another district converted to an all-charter district in 2007-08.

Compared with California's noncharter public schools, charter schools are less likely to be elementary schools and more likely to be high schools. The following charts show the breakdown of charters and noncharters by school type.

Schools by Type (as classified for state and federal accountability programs)



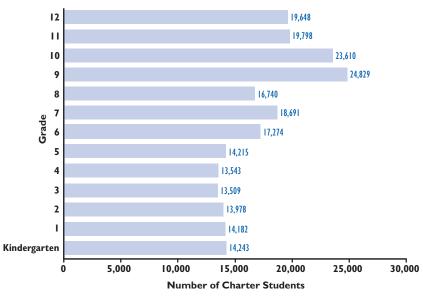
^{*} A few schools that were open in 2006-07 were not classified as elementary, middle, or high schools for state accountability programs because they do not have students in the grades tested (2-11) or for other reasons.

Charter School Enrollment by Grade, 2006-07*

Given the relatively large portion of high schools among charters, it is not surprising that charters have more students in grades 9–12 than in other grades. The number of 9th and 10th graders in charter schools is particularly striking. The fact that the

numbers are greater than in grades 11 and 12 may indicate that there are a number of recently established charter high schools that have begun with only grades 9 and 10 and intend to add grades and students over time.

Charter schools serve more high school students



^{*} Enrollment data are not available for a few schools each year.

Student and Teacher Populations in Charter and Noncharter Schools

As a whole, charters serve a somewhat different population of students than noncharter schools. This partly reflects the fact that charters are not proportionally distributed throughout the state. Charters serve greater proportions of African American and white students and smaller percentages of Asian and Hispanic students. They also have fewer English learners.

Student Demographics Among All Charters and Noncharters Open in 2006-07						
	Percentages for All	Schools Combined*				
Students	Charters (617 schools)	Noncharters (8,961 schools)				
African American	12%	7%				
Asian	4%	8%				
Hispanic	39%	48%				
White	37%	29%				
Other Ethnicities	7%	7%				
English Learner	18%	25%				
* If all charter schools were combined into one school and all noncharter schools were combined into	o another school, these percentages would result.					

The teachers who work at charters tend to bring fewer years of experience and credentials to the job as compared with noncharter teachers, though the differences between the two types of schools have narrowed somewhat over the last few years. In 2006–07,

12% of charter school teachers and 8% of noncharter teachers were not fully credentialed. Regarding experience, 12% of charter teachers had been in the profession for two years or less and 6% of teachers at noncharter schools had that level of experience.

Data: California Department of Education (CDE)

A Guide to the Performance Comparisons on Pages 6–12 (This guide uses hypothetical data.)

Type of School	The following tables present three groups of schools—a reference group (e.g., noncharters), a primary comparison group (e.g., charters), and a comparison group that includes only classroom-based charters.						
Number of Students	-	his is the total enrollment of all schools in each category.					
Median School Characteristics		vs the SCI value for the "typical" school in the	comparison—one at the 50t	h percentile. Equal numbers of s	chools have higher		
(range for middle half)	The "range for m group vary in the	iddle half" shows the spread of values from the ir SCIs.	e 25th to the 75th percentil	es. It provides a sense of how so	hools within each		
Median Enrollment	The median show	vs the enrollment for a "typical" school—one at	the 50th percentile. Equal r	umbers of schools have higher a	nd lower enrollments.		
(range for middle half)	The "range for m group vary in the	iddle half" shows the spread of values from the ir enrollments.	e 25th to the 75th percentil	es. It provides a sense of how so	hools within each		
% Conversion/% Start-up	These percentag started as charte	es show what portion of the charter schools in ers.	the comparison were conve	ersions of existing public schools	and what portion were		
Performance Data (hypothetical (data and definit	1a	1b				
		All Charters vs. Nonch	arters	Classroom-based Charters	Only vs. Noncharte		
2007 Outcome Measures (These vary by elementary/ middle/high school.)	Average Score for Noncharters	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size		
Growth 2007 API	800.0	-10.0 API points*** 3b	-0.15	+5.0 API points* 3b	+0.10		
AYP English—percent proficient or above (test taken and grades assessed vary by school type)	60.0%	This column shows the estimated effect of being a charter on several performance measures if school size and SCI values are held constant. In this hypothetical exam- ple, the "-10 API points" above means the	Effect size expresses the "charter effect" in relation to the amount of variation among schools' scores. It also puts	The figures displayed here con as those displayed to the left, based charters are reflected in	but only classroom-		
AYP Math—percent proficient or above (test taken and grades assessed vary by school type)	50.0%	average charter school would be estimated to score 10 points lower on the API than the average noncharter school if it had the same number of students enrolled and the same SCI value. (A "+" symbol	performance differentials for several different outcome measures on a common scale.				
California Standards Test (CST) English—mean scale score for a single grade (4, 7, or 10)	300.0	would mean that charters score higher.) The number of asterisks indicates the charter effect's statistical significance:	The guidelines for interpreting effect sizes are as follows:				
Scale scores take into account the difficulty of test questions, allowing scores to be added, averaged, or otherwise aggregated.		* Significant at .10 level. (10% chance that difference is due to random variation.)	about 0.20=smallabout 0.50=moderateabout 0.80=large				
6 7 65 6	000.0	** Significant at .05 level. (5% chance)	In this hypothetical example, a "charter				
CST Math—mean scale score	320.0	*** Significant at .01 level. (1% chance) Note: If no asterisk is present, the result is	effect" of -10 API points equates to an effect size				

Stability: The level of agreement of results *over time* is summarized as low, moderate, or high.

How to Read This Report

The Findings section that begins on page 6 first presents performance comparisons of charter and noncharter schools, with separate comparisons for elementary, middle, and high schools. Schools are classified according to how the California Depart-

ment of Education categorizes them for the Academic Performance Index. (See more on this topic in Appendix A, page 27.)

The section then looks at comparisons of charters that are run by charter management organizations (CMOs) with

charter schools that are not affiliated with a CMO. Each performance comparison is presented on one page, with contextual data provided to describe the groups of schools being compared.

Explanation of the Guide on Page 4

The following analyses...

compare performance in two ways:

- (1a) With *all* charter schools in the relevant group, and
- With only classroom-based charter schools in the relevant group. A charter school is considered classroom-based when at least 80% of its instructional time occurs on site under the direct supervision of a teacher. Charters not meeting that threshold are considered nonclassroom -based. The latter comparison is done under the theory, espoused by some members of the education community, that nonclassroom-based charter schools are substantially different from other charters and regular public schools in their instructional program and the students that they serve. For example, some nonclassroom-based charters are fundamentally networks for homeschooling families, and some provide distance learning only. Thus, they are not necessarily comparable to traditional schools.
- present performance differences between groups of schools after adjusting for differences in enrollment (or "school size") and School Characteristics Index (SCI) values. The adjustment is done with a statistical technique called "ordinary least squares regression." School size matters because charters are smaller, on average, than noncharters and some think that differences in performance are more the result of small size than charter status. SCI values summarize primarily student demographics and, to a lesser extent, school and teacher characteristics associated with academic performance. The lower a school's SCI value, the more likely the school is to have low test scores because of challenges, such as low average parent education level, high poverty rates, and high percentages of English learners. Controlling for SCI and school size is done to isolate—as much as is possible with publicly available data—the effect on academic performance of being a charter school or a particular type of charter school. (For more information on the SCI, see Appendix B, page 30.)

use two statistical terms:

- (Effect size," which expresses the performance differential between two groups in relation to the amount of variation in observed performance. For example, if most schools' scores are clustered within a few points, a difference of several points between two groups will translate to a large effect size. In addition, effect sizes put different measures such as API points and "percent proficient or above" on a common scale. (See Appendix A, page 27, for more information.)
- (3b) "Statistical significance," which measures the likelihood that a result is due to random variation. (See Appendix A, page 27, for more information.)
 - report school-level results from several indicators including the Academic Performance Index, adequate yearly progress reports, California Standards Tests, and the California High School Exit Exam (CAHSEE). The tables also note how consistent the findings are across measures. (See Appendix A, page 27, for more information.)
- describe how stable the results have been over time. (See Appendix A, page27, for more information.)

Not all schools are included in the analysis

It is important to note that the comparisons in this report include only those charter and noncharter schools that have data on all of the 2007 outcome measures covered in this study. In most instances, schools are excluded because they lack Academic Performance Index (API) and/or School Characteristics Index data. (See more on the SCI in Appendix B, page 30.) Altogether, this study does not include 38% of the 617 charter schools (or 44,242 students) and 21% of the 8,961 non-charter schools (or 332,905 students) that were open in 2006–07. For both sets of schools, high schools are much more likely to be excluded from the performance analyses than elementary and middle schools. The percentage of excluded high schools is 48% for charters (30,567 students) and 54% for noncharters (191,172 students). (For more information, see Appendix A, page 27.)

FINDINGS



After adjusting for SCI values and school size, charter elementary schools score lower than noncharters, particularly in math

The 196 charter elementary schools in this analysis are, on average, about 70% of the size of the noncharters, and they serve a somewhat more advantaged set of students (as summarized by SCI values). About a third of these charter elementary schools were conversions of regular public schools, and 25 (I3%) are nonclassroom-based.

Key Findings

After adjusting for differences in school size and SCI values, charter elementary schools score 9 points lower on the API, due mainly to charter students' scores on the California Standards Test (CST) in mathematics, which are lower by statistically significant margins. (In contrast, charters and noncharters have very similar scores on the English language arts CST.) However, when nonclassroombased charters are excluded from the analysis,

API scores of charter and noncharter elementary schools are not significantly different.

An additional finding, based on separate analyses not displayed below, is that after adjusting for enrollment size and SCI values, the small group of nonclassroom-based elementary charters score about 65 points lower than classroom-based elementary charters on the 2007 Growth API.

Comparing Charters with Noncharters—Elementary Schools (See pages 4–5 for a guide to interpreting the table below.)

Contextual Data—Elementary Schools Only				
	Noncharters	All Charters	Classroom-based Charters Only	
	(4,921 schools)	(196 schools)	(171 schools)	
Number of Students	2,865,491	85,856	72,504	
Median School Characteristics	168.4	171.8	170.9	
Index (SCI) (range for middle half)	(161.8-176.5)	(162.1-178.7)	(161.3-178.7)	
Median Enrollment	558	340	337	
(range for middle half)	(432-714)	(238-518)	(237-513)	
% Conversion/% Start-up	N/A	32%/68%	35%/65%	

Performance Data—Elementary Schools Only

		All Charters vs. Noncharters		Classroom-based Charters Only vs. N	loncharters
2007 Outcome Measure	Average Score for Noncharters [†]	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size
Growth 2007 API	772.4	-9.1 API points***	-0.11	+0.2 API points	+0.00
AYP English —percent proficient or above (CST, all tested grades)	47.4%	+0.6 percentage points	+0.03	+1.0 percentage points	+0.05
AYP Math —percent proficient or above (CST, all tested grades)	56.1%	-6.1 percentage points***	-0.37	-2.7 percentage points***	-0.16
CST English, Grade 4—mean scale score	354.1	+2.6 scale score points**	+0.09	+4.0 scale score points***	+0.14
CST Math, Grade 4—mean scale score	367.3	-7.5 scale score points***	-0.23	-0.8 scale score points	-0.02

Strength of Findings

Consistency: Low—The performance differential favors elementary noncharter schools on the API and mathematics measures, but elementary charters perform about the same on English language arts measures.

Stability: Moderate - Elementary charters trail noncharters on the API, with lower mathematics results and comparable English language arts results. This performance pattern tracks past years' findings fairly well.

† For average unadjusted scores of all charter elementary schools and classroom-based charter elementary schools only, see Appendix C, page 31.

Charter middle schools score higher than noncharters on all measures, after adjusting for SCI values and school size

The 57 charter middle schools in this analysis are about one-third the size of noncharters on average, and they serve more disadvantaged students, as indicated by SCI values. More than three quarters are startups, and all are classroom-based. As is true in other states, charter middle school students comprise a small portion of California's

middle school population. They are just 2% of the middle schoolers represented in this analysis. However, a substantial number of charter students in grades 6-8 attend schools designated as elementary or high schools, including such configurations as K-8 and 6-12.

Key Findings

After adjusting for differences in school size and SCI values, charter middle schools

score 45 points higher on the API and considerably higher on other measures as well.

Not only are the findings consistent across measures, but they have been stable over time. For several years, charter middle schools have produced strong results for a group of students who are generally more disadvantaged than their noncharter counterparts.

Comparing Charters and Noncharters—Middle Schools (See pages 4–5 for a guide to interpreting the table below.)

Contextual Data—Middle Scho	ools Only				
	Noncharters (1,219 schools)	All Charters (57 schools)		Classroom-based Charters Only (57 schools)	
Number of Students	1,124,027	22,557		All charter middle schools in this analysis are classroom-based.	
Median School Characteristics Index (SCI) (range for middle half)	167.3 (159.4-175.9)	163.0 (154.2-173.7)			
Median Enrollment (range for middle half)	867 (632-1,146)	299 (173-415)			
% Conversion/% Start-up	N/A	23%/77%			
Performance Data – Middle So	chools Only				
		All Charters vs. Noncharte	ers	Classroom-based Charters Only vs. N	Noncharter
2007 Outcome Measure	Average Score for Noncharters [†]	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size
Growth 2007 API	733.8	+45.2 API points***	+0.49	All charter middle schools in	
AYP English—percent proficient or above (CST, all tested grades)	45.3%	+7.8 percentage points***	+0.42	analysis are classroom-based.	
AYP Math —percent proficient or above (CST, all tested grades)	39.3%	+10.3 percentage points***	+0.57		
CST English, Grade 7—mean scale score	343.9	+15.1 scale score points***	+0.57		

Strength of Findings

Consistency: High—The performance differential on all measures favors charters, and the effect sizes are similar.

Stability: High—The performance pattern in 2007—higher scores on all measures for middle charters—closely resembles prior years' patterns.

† For average unadjusted scores of all charter middle schools, see Appendix C, page 31.

Data: California Department of Education (CDE)

After adjusting for differences in school size and SCI values, charter high schools score higher on the API, despite lower scores in mathematics

The typical charter high school in this analysis is about one-fifth the size of the typical noncharter high school and has a lower SCI value, indicating that it serves more disadvantaged students. The vast majority of charter high schools are start-ups, and most are classroom-based, though a substantial portion is nonclassroom-based.

Key Findings

After adjusting for differences between charters and noncharters in enrollments and SCI values, charter high schools score I4 points higher on the 2007 Growth API, despite lower scores in mathematics. When the 50 nonclassroom-based charters are excluded from the analysis, charter high schools score higher than noncharters on all measures, including in mathematics. In other words, the math scores of nonclassroom-based charters pull the average math

score for charter high schools substantially downward. Separate analyses that are not displayed below provide the specific data: On the AYP math measure—which is the percentage of grade 10 students scoring "proficient" or above on the California High School Exit Exam's math section—the results for nonclassroom-based charter high schools are 21 percentage points lower than for classroom-based charter high schools, after controlling for school size and SCI values.

Comparing Charters and Noncharters—High Schools (See pages 4-5 for a guide to interpreting the table below.)

Contextual Data—High School	ols Only				
	Noncharters (941 schools)	All Charters (130 schools)	7 0.1 00.0		Only
Number of Students	1,712,904	72,440	72,440		
Median School Characteristics Index (SCI) (range for middle half)	168.8 (160.6–177.2)	165.5 (157.3-172.3)		162.5 (154.6-172.2)	
Median Enrollment (range for middle half)	1,875 (1,037-2,486)	349 (247-519)	5.5		
% Conversion/% Start-up	N/A	8%/92%	8%/92%		
Performance Data—High Sch	ools Only				
		All Charters vs. Noncharte	ers	Classroom-based Charters Only vs. N	loncharters
2007 Outcome Measure	Average Score for Noncharters†	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size
Growth 2007 API	708.0	+14.4 API points***	+0.17	+44.6 API points***	+0.51
AYP English —percent proficient or above (CAHSEE, Grade 10)	51.2%	+4.1 percentage points***	+0.22	+8.6 percentage points***	+0.46
AYP Math —percent proficient or above (CAHSEE, Grade 10)	52.4%	-5.8 percentage points***	-0.31	+2.8 percentage points*	+0.15
CST English, Grade 10 —mean scale score	334.6	+2.9 scale score points*	+0.12	+12.7 scale score points***	+0.51

Strength of Findings

scale score

scale score

CAHSEE English, Grade 10-mean

CAHSEE Math, Grade 10—mean

Consistency: Low—Although charter high schools perform better than noncharter high schools in English language arts, their performance is lower in mathematics.

+3.5 scale score points***

-2.2 scale score points*

+0.22

-0.13

Stability: High—The mixed pattern of performance observed in 2007 mirrors the performance pattern from previous years.

† For average unadjusted scores of all charter high schools and classroom-based charter high schools only, see Appendix C, page 31.

378.3

382.6

Data: California Department of Education (CDE)

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+0.57

+0.34

+9.3 scale score points***

+6.0 scale score points***

Charters run by charter management organizations generally outperform other charters

A substantial portion of the growth in the state's charter school segment in recent years has come from the creation and expansion of charter management organizations (CMOs). A widely agreed upon definition of "charter management organization" does not exist, but in this report a CMO is defined as an organization, or branch of an organization, that provides or has plans to provide significant, ongoing administrative support to multiple charter schools. This analysis includes 75

charter schools run by I9 management organizations. Those 75 schools represent nearly one-fifth of the charters included in this study. (For more on CMOs and how they are defined, see Appendix A, page 27. The CMOs represented in this analysis are listed below.)

On average, CMO charters score higher than other charters

The following pages present performance comparisons based on statistical regression, similar to those done on pages 6 to 8. They show how the 2007 performance of

charters run by CMOs compares with charters that are not operated by CMOs. Separate analyses are done for elementary, middle, and high schools. They show that CMO charters, on average, outperform other charters—by wide margins on some measures. Not all CMO-run charter schools are high achievers; a few have relatively low similar schools rankings, which indicate that their API scores are not very high compared to schools with similar SCI values. However, CMO charters as a group perform well, as the analyses that follow show.

Charter Management Organizations Represented in This Analysis

The following CMOs and schools were reflected in this report's performance analyses. Some CMOs have additional schools in their network or are planning to open additional schools, but the ones on this list were open in 2006–07 and had all relevant performance measures used in this analysis.

Charter Management Organization		Number of Schools	
	Elementary	Middle	High
Alliance For College Ready Public Schools	0	1	3
Aspire Public Schools	11	2	1
Bright Star Schools	0	1	0
California Virtual Academies	6	0	0
Celerity Educational Group	1	0	0
Connections Academy	1	0	0
Edison Schools, Inc.	5	1	0
Education for Change	2	0	0
Envision Schools	0	0	3
Green Dot Public Schools	0	0	4
High Tech High Communities	1	2	4
Inner City Foundation	1	1	1
Innovative Education Management, Inc.	1	0	2
KIPP (Knowledge is Power Program)	1	5	0
Leadership Public Schools	0	0	4
Options for Youth	0	0	3
PUC (Partnerships to Uplift Communities) Schools	0	2	2
St. Hope Public Schools	1	0	1
Willow Education	1	0	0
Total	32	15	28

Taking student demographics and school size into account, charter elementary schools run by charter management organizations outperform other charter elementary schools on all measures

Of the 32 CMO charter elementary schools in this analysis, 24 are classroom-based and 27 are start-ups. These CMO-run schools tend to be a little bigger than other charter elementary schools and to serve a more

disadvantaged student body, as indicated by lower SCI values.

Key Findings

After adjusting for these differences, CMO charter elementary schools score 39 points higher on the API than non-CMO charter elementary schools and have higher scores on all other measures. All differences are statistically significant, and effect sizes are generally

moderate. Conducting the same analysis with only classroom-based charters does not change these results very much.

Separate analyses not reflected in the table below indicate that CMO charter elementary schools score 25 points higher on the API than noncharter elementary schools and 39 points higher when only the classroom-based CMO charters are considered.

Within Charter Comparisons—CMO charters vs. Non-CMO Charters (See pages 4-5 for a guide to interpreting the table below.)

Contextual Data—Elementary Schools Only				
	Non-CMO Charters (164 schools)	CMO Charters (32 schools)	Classroom-based CMO Charters Only (24 schools)	
Number of Students	70,264	15,592	10,247	
Median School Characteristics Index (SCI) (range for middle half)	173.9 (163.7-179.5)	162.1 (157.6-172.5)	159.6 (156.2-169.0)	
Median Enrollment (range for middle half)	332 (229-518)	392 (294–505)	355 (275-486)	
% Conversion/% Start-up	35%/65%	16%/84%	21%/79%	

Performance Data—Elementary Schools Only

		All CMO Charters vs. All Non-CMO Charters		Classroom-based CMO Charters vs. Classroom-based Non-CMO Charters	
2007 Outcome Measure	Average Score for Non-CMO Charters [†]	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size
Growth 2007 API	773.3	+38.7 API points***	+0.46	+44.2 API points***	+0.53
AYP English —percent proficient or above (CST, all tested grades)	50.7%	+10.1 percentage points***	+0.54	+10.5 percentage points***	+0.56
AYP Math —percent proficient or above (CST, all tested grades)	52.0%	+10.6 percentage points***	+0.60	+12.3 percentage points***	+0.69
CST English, Grade 4 —mean scale score	360.5	+13.4 scale score points***	+0.48	+14.7 scale score points***	+0.53
CST English, Grade 4—mean scale score	362.2	+17.2 scale score points***	+0.53	+22.2 scale score points***	+0.68

Strength of Findings

Consistency: High—CMO charter elementary schools outperform non-CMO charter elementary schools on all measures, with moderate-sized effects.

Stability: Moderate—CMO charter elementary school performance outpaced non-CMO charter performance in both 2006 and 2007; however, the size of the effects is larger in 2007.

† For average unadjusted scores of CMO charters and classroom-based CMO and non-CMO charter elementary schools only, see Appendix C, page 31.

Data: California Department of Education (CDE)

EDSOURCE REPORT

CMO-run middle schools score much higher than other charters on all measures, after controlling for differences in SCI values

The I5 CMO charter middle schools in this analysis are almost all start-ups and are similar to non-CMO charters in school size. However, CMO charter middle schools as a

whole serve considerably more disadvantaged students.

Key Findings

With these differences in student demographics accounted for, CMO middle schools score 73 points higher on the API than non-CMO charter middle schools and have higher scores

on all other measures. (Indeed, these CMO charter middle schools achieve a higher average API score even without adjustments, as can be seen in Appendix C, page 31.)

A separate analysis of CMO charter middle schools versus traditional (non-charter) middle schools also indicates a performance differential—98 API points.

Within Charter Comparisons—CMO charters vs. Non-CMO Charters (See pages 4-5 for a guide to interpreting the table below.)

Contextual Data—Middle Scho	ools Only				
	Non-CMO Charters (42 schools)	CMO Charters (15 schools)		Classroom-based CMO Charter (15 schools)	s Only
Number of Students	18,014	4,543		All charter middle schools in this analysis are classroom-based.	
Median School Characteristics Index (SCI) (range for middle half)	167.4 (155.2-174.7)	159.2 (153.4-165.8)			
Median Enrollment (range for middle half)	295 (159-462)	299 (257-333)			
% Conversion/% Start-up	29%/71%	7%/93%			
Performance Data—Middle So	chools Only				
		All CMO Charters vs. All Non-CMO Charters		Classroom-based CMO Charter Classroom-based Non-CMO Cha	
2007 Outcome Measure	Average Score for Non-CMO Charters [†]	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size
Growth 2007 API	746.5	+72.7 API points***	+0.79	All charter middle schools in	0
AYP English —percent proficient or above (CST, all tested grades)	48.8%	+12.8 percentage points***	+0.63	analysis are classroom-based.	
AYP Math —percent proficient or above (CST, all tested grades)	41.1%	+19.0 percentage points***	+0.93		
CST English, Grade 7 —mean scale score	349.2	+16.8 scale score points***	+0.64		
CST English, Grade 7—mean scale score	343.2	+21.2 scale score points***	+0.74		

Strength of Findings

Consistency: High-CMO charter middle schools outperform non-CMO charter middle schools on all measures, with large effects.

Stability: Moderate—CMO charter performance outpaced non-CMO charter performance in both 2006 and 2007; however, the size of the effects is larger in 2007.

† For average unadjusted scores of CMO charters, see Appendix C, page 31.

Data: California Department of Education (CDE)

Charter high schools operated by CMOs score higher than other charter high schools, but not all differences are statistically significant

CMO charter high schools tend to be a little bigger than other charter high schools and have considerably lower SCI values.

Key Findings

After adjusting for differences in school size and student demographics, CMO charter high schools score 27 points higher on the API than charter high schools that are not run by management organizations. CMO charter high schools also score higher on the other measures, but on two of those measures—mean scale scores of 10th graders on the English CST and California High School Exit Exam (CAHSEE) math—the differences are not statistically significant.

When only classroom-based charter schools are considered, the performance differentials on all outcome measures narrow and are not statistically significant. This occurs because a greater number of lowerscoring nonclassroom-based charters are removed from the non-CMO group than the CMO group.

Separate data not displayed below indicate that these CMO charter high schools also score 36 points higher than noncharter high schools on the API, after adjusting for differences in school size and student demographics. The difference grows to 51 points when the five nonclassroom-based CMO charters are excluded.

Within Charter Comparisons—CMO charters vs. Non-CMO Charters (See pages 4-5 for a guide to interpreting the table below.)

Contextual Data—High Schools Only							
	Non-CMO Charters (102 schools)	CMO Charters (28 schools)			s Only		
Number of Students	58,209	14,231		8,614			
Median School Characteristics Index (SCI) (range for middle half)	166.5 (159.6-173.5)	157.4 (152.5-166.9)		158.4 (152.3-167.8)			
Median Enrollment (range for middle half)	344 (238-480)	387 (258-537)		302 (245-444)			
% Conversion/% Start-up	10%/90%	0%/100%		0%/100%			
Performance Data—High Sch	ools Only						
		All CMO Charters vs. All Non-CMO Charters		Classroom-based CMO Charte Classroom-based Non-CMO Ch			
2007 Outcome Measure	Average Score for Non-CMO Charters [†]	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	CMO Effect, After Adjusting for Enrollment and School Characteristics	Effect Size		
Growth 2007 API	694.0	+27.0 API points***	+0.31	+8.5 API points	+0.10		
AYP English —percent proficient or above (CAHSEE, Grade 10)	48.8%	+6.0 percentage points***	+0.30	+3.1 percentage points	+0.16		
AYP Math —percent proficient or above (CAHSEE, Grade 10)	39.4%	+8.9 percentage points***	+0.47	+3.1 percentage points	+0.16		
CST English, Grade 10 —mean scale score	332.6	+4.7 scale score points	+0.19	-1.0 scale score points	-0.04		
CAHSEE English, Grade 10 —mean scale score	378.1	+3.3 scale score points*	+0.20	-0.1 scale score points	-0.01		
CAHSEE Math, Grade 10 —mean scale score	374.9	+3.3 scale score points	+0.19	-1.7 scale score points	-0.10		
Strength of Findings							

Consistency: Moderate—When all charter schools are included in the analysis, CMO charter high schools outperform non-CMO charter high schools on all measures, with small effects. When only classroom-based charters are included, effect sizes drop and some effects become negligible.

Stability: High—CMO charter high school performance in 2007 closely matches performance in 2006 on the analyses common to both years (API and AYP).

† For average unadjusted scores of CMO charters and classroom-based CMO and non-CMO charter high schools only, see Appendix C, page 31.

Data: California Department of Education (CDE)

Most charters satisfy performance requirements for charter renewal

Charter schools operate somewhat outside of district control and much of the state's Education Code, but there are still external entities and forces—beyond competition for students and pressure from accountability systems that apply to all schools—pushing them to succeed. For example, the California Charter School Association publishes quality standards and monitors charter schools to make sure they are adhering to those standards. The CCSA and other organizations offer technical assistance with the business and legal side of operations so that charter staff can keep their schools running and provide the education programs they envision. Further, foundations and individual donors sometimes provide generous financial support, though it usually comes with restrictions. Finally, to be eligible for renewal, state law requires that charters meet specified performance benchmarks that are not required by regular public schools.

California's initial charter legislation, enacted in 1992, set out an expectation that charter renewal would be contingent on student performance as specified in the school's charter petition. 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 charter school operators and their chartering agencies to determine. This changed in 2003 when the state enacted Assembly Bill (AB) 1137, which set specific academic performance criteria for charter renewal.

Beginning in January 2005, a charter school that has operated for four years or more must do at least one of the following to be eligible for renewal:

- Rank in Decile 4 (in the top 70% of schools) or higher on the statewide or similar schools API rankings in the prior year or in two of the last three years;
- Meet its API growth target (improvement goal) in the prior year, in two of the last three years, or in the aggregate for the prior three years;
- Have its charter-granting agency determine that the school's academic
 performance is at least equal to the performance of the schools the charter
 students would have attended otherwise and other schools within the district
 serving similar students;
- Qualify for the Alternative Schools Accountability Model (ASAM), which is for schools serving a majority of at-risk students. Schools in the ASAM choose three indicators of performance from a list of measures, such as student attendance, credit completion, and reading and math achievement.

The California Department of Education does not specifically track charter schools' performance against AB 1137's criteria, but it does maintain a database on charters' start dates, renewal dates, and open/closed status. In addition, the CDE maintains records of all schools' API data. After merging the two sets of data, EdSource examined the relationship between the API performance called for in AB 1137 and charter renewals and nonrenewals.

CDE data indicate that 164 charter schools have been renewed since 2005 after having operated for at least four years. Of those, 11 schools were exempt from

meeting AB 1137's API benchmarks because they were in the ASAM. Of the 153 remaining charters, 19 were presumably renewed under the "equal performance" criterion described in the third bullet to the left. This is an assumption based on the fact that their API scores or ranks were below the levels called for in the law, or they did not have enough API data to be measured against the law's benchmarks. The other 134 schools met the specific API-related criteria (statewide or similar schools rank of 4 or sufficient API growth). Of those 134 schools that clearly passed the AB 1137 test, 97 schools met multiple API criteria and 37 schools met just one criterion.

Each benchmark can be considered in isolation to see whether some appear easier to meet than others. Below, the numbers of schools meeting each criterion are listed. (Because schools can meet multiple criteria, the numbers meeting each benchmark overlap and do not add up to 134.)

- 105 charter schools had a statewide API rank of 4 or higher.
- 69 schools achieved a similar schools rank of 4 or higher. However, not all
 charters receive similar schools rankings so not all charters can satisfy the AB
 1137 criteria using that measure. For example, if a school's API score is calculated based on fewer than 100 student test scores, the school does not get a
 similar schools rank. Of the 153 non-ASAM charters renewed, during the last
 three years, between 34 and 45 schools each year did not receive a similar
 schools ranking because they were too small.
- 102 charters met their growth target in the year prior to renewal or in two of the prior three years.
- Seven schools did not meet the statewide rank, similar schools rank, or growth target criteria and instead satisfied the API-related requirements of AB 1137 only by demonstrating sufficient API growth over multiple years. All seven schools are nonclassroom-based.

As previously mentioned, 19 schools had their charters renewed but did not meet the specific API criteria. Four of the 19 did not receive any API scores between 2003 and 2007. Most of the other 15 received multiple API scores over that period, but the scores do not meet the API benchmarks spelled out in the law. Presumably, those schools' chartering agencies reviewed their achievement data and found them performing on par with similar local schools.

No charter school appears to have been closed because of failure to meet the law's benchmarks. EdSource examined the 17 charter schools that ceased operation after Jan. 1, 2005 and were at least four years old. Of those schools, 13 qualified for renewal based on performance, meaning they were closed for reasons unrelated to AB 1137's requirements. That leaves only four schools that could possibly have been closed because they did not meet the bill's performance criteria. One of those four re-opened as a noncharter. However, three of the "closed" charter schools quickly re-opened with new charters in different buildings or in different districts with slightly different names. A provision of the state's Education Code helps make this possible. The provision makes approval of new charter petitions the default choice for chartering authorities.

DISTRICT/CHARTER RELATIONSHIPS



In three of California's largest districts, charters represent a substantial segment of public schools

When the charter school concept was first implemented in the early 1990s, some advocates saw the movement as a way to deregulate a few schools and thereby create laboratories of innovation that other public schools might emulate. Some supporters also promoted charters as a way to create choices and competition within the public school system, which could lead to improvement of all schools.

On one hand, as long as charter schools constitute just 6% of the state's schools and are found in only one-quarter of the state's school districts, they may have little effect on the system as a whole. On the other hand, in some of the state's largest school districts, charters play a substantial role and are thus a readily available option for many families. In three of the state's largest districts—Oakland, San Diego, and Los Angeles unified school districts charter schools have become quite common. In these localities, the theories of charter advocates are—arguably—being put to the test. These districts also provide a chance to get a closer look at how the special relationship between school districts and charter schools can play out, depending on where they are located, the communities they serve, and the challenges they are trying to address.

The relationship between districts and charter schools can range from supportive to adversarial

The relationship between a district and its charter schools can range from largely cooperative—with both sides sharing expertise and meeting mutual obligations in pursuit of common goals—to largely competitive and adversarial. In districts with several charter schools, the relationship may vary by school

or charter management organization. For good or ill, school districts and charter schools cannot simply ignore each other. They are bound together by the community they serve, by facility issues, and by state policies related to funding and performance accountability.

In the early days of California's charter movement, the majority of charter schools were "conversions" of existing public schools. Since that time, the percentage of "start-ups" has increased steadily, such that they now represent 84% of all charter schools.

For start-ups, the official relationship begins when would-be charter operators submit their charter petition to the local chartering authority. In most cases, that means the local school district, though both county boards of education and the State Board of Education can act as chartering authorities. In many ways, a district's role as a chartering authority defines the official relationship between these two types of educational institutions.

School boards are expected to grant the charter unless they make written findings that the petitioners have proposed an unsound education program, are demonstrably unlikely to implement the charter, or do not meet specific petition requirements. If a district denies a charter, petitioners can appeal to the county board of education and ultimately to the State Board of Education.

Districts must cooperate with charters regarding facilities

Regardless of which entity ultimately approves a charter, the local district typically retains some responsibility for charters that operate within its physical boundaries. For example, state law specifically requires that school districts cooperate with charter schools regarding facilities. The legal expectations emerged in part

because locating and paying for facilities has represented a major challenge for many charter schools, particularly for start-ups. Since Proposition 39 passed in 2000, districts are expected to provide facilities sufficient for each local charter school to accommodate all of its in-district students (if there are at least 80 such students). Such facilities must be in a condition "reasonably equivalent" to district schools, and they must be contiguous, furnished, and equipped.

Local realities can play a strong role in determining how these facility issues play out. The first question is often whether a district has extra space a charter school can use. In some districts, the answer is yes and the issue is easily resolved. In other districts, the need for charter school space can run up against a district's obligation to house other district students. Many charter schools operate in facilities they lease, and the search for suitable school space is a constant challenge within the charter community as a whole. When the general relationship between a district and its charter schools is adversarial, facility issues can be a major point of conflict.

Some charter schools instead rent commercial facilities, and if the school serves a predominantly low-income student body or neighborhood, it can get state support of up to \$750 per student to cover 75% of its rental costs. However, the state does not always fully fund the program, so charters often do not receive the intended amount. In addition, qualifying charter schools can and do participate in the state's school construction program, but finding the required local matching funds and predevelopment costs can be difficult. Whether using district facilities, renting, or taking part in the state's school construction program, most charter schools spend some of their operating funds on facilities.

Charters and districts often negotiate over funding issues

State policies related to funding charter schools also shape the nature of districtcharter relationships. A large portion of the funds charter schools receive are based on state formulas that are related to district general purpose and categorical program funds.

Charters receive general purpose funds that are similar to school district revenue limit monies in that they come from a combination of local property taxes and state money. This funding is based on average daily attendance (ADA), and the per-pupil amount varies depending on the age of the charter school's students, with more provided as students get older. Charter schools also receive extra funding for each student they serve who is identified as an English learner or eligible for free/reduced-price meals. This is in lieu of the state Economic Impact Aid that districts receive.

Charter schools also receive a discretionary block grant in place of funding for 44 other categorical programs. However, many of the state's largest categorical programs, such as K–3 Class Size Reduction (CSR), are not included in the block grant. Charter schools are free to apply for CSR funding and for other categorical money from the state or federal government as long as they meet any applicable program requirements. In some cases, they receive help applying for these funds from their local district. They may also negotiate with their districts for funds that are generated locally, such as parcel tax proceeds.

For the purpose of receiving funding to support Special Education students, it is presumed that a charter school is an arm of its charter-granting agency and thus a part of its Special Education Local Planning Area (SELPA). Thus, charter schools and districts often have to negotiate regarding how Special Education costs, revenues, and responsibilities will be allocated. This is often a difficult area for the two parties.

Each year, charter schools can choose whether they want to receive their funding through their chartering agency or directly from the state. Some charter schools choose to be locally funded, which means they get their funds through their chartering agency, most typically the local school district. (Some people refer to locally funded charters as "dependent," but that term is used less precisely.) These charters can only receive federal and state categorical program monies if the district applies for them on their behalf. Other charter schools choose to be direct-funded, which establishes them as a near equivalent of a district because they receive their funding directly from the state and apply on their own for categorical funds that are outside the block grant. (Some refer to such schools as "independent," but this term is also imprecise.) Almost two-thirds of charter schools statewide in 2006-07 were direct-funded. (In the three districts profiled here, the proportion is higher-76% in Oakland, 87% in Los Angeles, and nearly all in San Diego.) Both locally and directfunded charter schools negotiate with their authorizer for the cost of any direct services the district provides.

Chartering agencies are entitled to charge up to 1% of a charter school's revenues for the costs of providing oversight, or up to 3% if they provide the charter school with substantially rent-free facilities. Many districts argue that their actual oversight costs exceed the fees they are allowed to charge. The California Research Bureau is carrying out a legislatively mandated study of the issue and will report to the Legislature by January 2009 about the key elements and actual costs of charter oversight as well as best practices and recommendations for improvement.

However a charter is funded, the district's per-pupil money effectively "follows students" to the charter school. The district no longer has complete control over how those dollars are spent. In some districts, officials see this transfer of funds as a drain on district resources. If a district already has declining enrollment—which is the case for about half of the districts in the state—losing students and their associated revenue can be financially painful. Although the

charter obviously needs resources to serve the student, costs do not vary in perfect tandem with the number of students. District officials say that because fixed costs—such as administrator salaries and maintenance costs—decrease more slowly than enrollments, charters hurt districts financially. Charter advocates assert that districts' administrative duties decrease as their student counts fall and that some districts blame charters for financial difficulties when part of the blame could be placed on questionable managerial decisions.

Converting schools that do not meet federal performance targets to charter status is an option for districts

Federal accountability provisions have the potential to exert a different influence on the district/charter relationship. Districts have the option of using chartering as a strategy for restructuring low-performing schools. To date in California, this has rarely been done.

Under NCLB, a school receiving certain federal funds must make "adequate yearly progress" (AYP) toward the goal of having 100% of its students score proficient or above on tests aligned to state content standards by 2014. If a school fails to make AYP five times, its governing district must plan some kind of "restructuring" for the school and execute that plan if the school fails to make AYP for a sixth time. The district has five options with respect to restructuring, including:

- Replacing school staff, including the principal, who are relevant to the school's inability to make AYP.
- Contracting with an outside entity to operate the school.
- Turning the school operations over to the state educational agency.
- Engaging in another form of major restructuring that makes fundamental reforms.
- Reopening the school as a charter school.
 According to 2006 research by the
 Center for Education Policy, few districts in
 California have chosen to reopen schools as
 charters as a means of restructuring. The

California Department of Education has records of only four cases of conversion to charter status, but CDE records do not seem to fully reflect the reality on the ground. Some of the charter schools in the three districts profiled in this report were created as a result of restructuring, but they are not yet recorded as such by the CDE.

The district/charter relationship in the three large districts profiled here have some similarities

An exhaustive study of the charter story in Oakland, San Diego, and Los Angeles unified school districts is outside the scope of this report. However, EdSource supplemented data analyses with conversations with officials from each of the three districts as well as representatives of the California Charter Schools Association (CCSA), which provides networking opportunities for charter schools and advocates for them.

Some common themes emerged from discussions with district officials:

- Districts find it a challenge to have to authorize and support charters while also monitoring and holding them accountable. When a district authorizes a charter school, it must review the charter petition for inclusion of the legally required elements and for evidence that the school plan has a solid chance for success. Even after the school is approved, the district retains ultimate responsibility for the students in its jurisdiction. Thus, it has an interest in holding a charter school to the provisions of its charter, which may require a combination of enforcement and assistance.
- Charter schools have played a large role in prompting or expanding efforts within these districts to develop schools of choice and increase site autonomy to serve diverse communities. All three districts give families some degree of choice over the schools their children attend within the district; all three have experimented with schools that do not strictly adhere to

the traditional model, whether in terms of size or curricular focus; and in all three districts, the charter movement has prompted reflection on the amount of independence from central office management and discretion over use of funds that all schools should have.

- There is a great deal of diversity among charters in terms of their educational approach and relationship with the district. For example, some charters are considered an arm of the district and rely on it for major support. Other schools strive for independence but work in cooperation with the district, and yet others identify themselves as being in competition with the district.
- Local communities, including district staff and board members, have a wide range of opinions on the desirability of charters. Some have a very negative view of charter schools—seeing them as a drain on district resources, such as funding and facilities, and as not receiving appropriate oversight. In contrast, others see charters as a much-needed injection of choice and competition into public education. In between are degrees of skepticism and trust regarding whether the schools will serve children better than traditional public schools.

For its part, the CCSA tends to perceive the district/charter relationship in these districts as sometimes helpful, sometimes overly bureaucratic and, in a few areas, obstructionist. Association spokesmen say that charter schools are sometimes not treated as well as other public schools. They say that the charter community often must press districts—occasionally through court action-to make them meet their legal obligations to charter schools. These obligations can be providing services and facilities in some cases and taking a handsoff approach to charters in other cases. Given the respective interests constraints of districts and charter schools, a certain amount of tension is perhaps not

surprising—though some district/charter relations are quite harmonious.

Performance comparisons document variations between charter schools and their local districts

The profiles that follow compare the performance of charters and noncharters in the Oakland, San Diego, and Los Angeles unified school districts. With these comparisons, as with all charter-to-noncharter comparisons, there are limitations on the conclusions that can be drawn.

The comparisons are broken down by school type—elementary, middle, and high. In the "within district" comparisons of Oakland and San Diego, the number of schools is too small to support the type of statistical analyses used elsewhere in this report for statewide results. Thus, most performance data in the following profiles are presented without statistical adjustment for SCI and school size. SCI data are provided for context, however.

As is the case throughout this report, the performance comparisons do not take into account possible disparities related to funding. A lack of school-level financial data prevents a clear view of whether these charter schools have more or fewer resources than noncharters, and the extent to which that may contribute to their performance. Some national research has shown that charters get less than noncharters on average, but the story on funding-amounts, restrictions, and sources—is complex. In California, some funding disparities arise because charter schools often get less in categorical funding. On the other hand, charters have discretion over how they use much of the "categorical" funding they receive. Further, some charters get large foundation grants, but those can have as many strings as a categorical program or can be strictly start-up funds and not part of a school's ongoing program. And charters are not alone in benefiting from private donations. Finally, as already stated, most charters use a portion of their operating funds on capital expenses, which is generally not true for district-run schools.

Do charter schools "skim the cream"?

Some charter school opponents argue that students who are academically motivated are more likely to choose charters, leaving "regular" schools with greater concentrations of less motivated and less successful students. (This is referred to metaphorically as "skimming the cream.") Further, because academic achievement and ethnicity intersect, some fear that charters facilitate "white flight" (transfer of white students) from regular public schools.

However, others contend that under the traditional public school system—in which students are generally required to attend the school near their home—schools reflect the segregation of their neighborhoods. School choice advocates assert that allowing parents to choose schools outside of their local attendance area increases accessibility to schools with ethnic mixes that are different from their local neighborhood.

Two reports on charter school students in California shed light on the ability level and ethnicity of students attracted to charter schools. One is an October 2005 study by RAND, *The Effect of Charter Schools on School Peer Composition*. The other is an April 2006 report by researchers at the University of Maryland, College Park, and the California Department of Education (CDE), *Access and Accountability for Students with Disabilities in California Charter Schools*.

The RAND study belies assumptions regarding ethnicity and ability

RAND studied records of individual students over time in California and Texas to examine the ability level and ethnicity of students transferring from regular public schools to charter schools. The California dataset covered 1997–98 through 2001–02 and comprised six districts with 1.1 million students, including more than 61,000 in 74 charter schools in 2001–02.* The dataset also contained students' SAT-9** reading and math scores for grades 2–11 and their ethnicity.

RAND found that in California, African American and Hispanic/Latino students were more likely to transfer to a charter school than other students, and this was especially true for African American students. In general, students transferred to charters that were slightly more diverse than the regular schools they left. White, Hispanic, and Asian students tended to transfer to charter schools with a lower percentage of students of the same ethnicity—and the differences in the average schools were statistically significant for whites and Hispanics. In contrast, the typical transferring African American students moved to a charter school with a greater percentage of African American students. The schools that African American students transferred from and to had a statistically significant difference in their percentage of African American students—39% for the average regular school and 51% for the average charter school.

With respect to students' ability, RAND found that the higher students' math scores were, the less likely they were to move to a charter school; but reading scores did not have a strong association with transfers to charter schools.

In summarizing their findings, RAND asserted that California charters are generally attracting students from average-scoring traditional schools, and the students who transfer to charters are about average students within those traditional schools. "California charters are not creaming the best students from traditional schools, but they are also not providing an outlet for the low-achieving students," the study's authors concluded.

It is important to note that the charter movement constantly evolves; therefore, the charters that existed at the time of RAND's study are not necessarily the same as those that exist today. For example, the charter management organizations that are active today—especially in large urban districts—were less prevalent at the time of the study. And CMO charters tend to serve more disadvantaged students.

Charters overall serve fewer students with disabilities and fewer with severe disabilities

The second study, on special-needs students in California's charter schools, examined 2003–04 data and compared the 270 charters with relevant data (60% of the 450 charters open that year) with 7,541 regular public schools.

The University of Maryland and CDE researchers found that charters enrolled a smaller percentage of students with disabilities (7.3%) than regular public schools did (9.9%). Further, charters also had fewer students with severe disabilities. For example, of Special Education students served, charters had fewer students with mental retardation (2.5% vs. 5.8%), emotional disturbance (3.0% vs. 4.4%), and multiple disabilities (0.3% vs. 0.8%). Conversely, charters had greater percentages of special-needs students with less severe disabilities—for example, those with a specific learning disability made up a greater portion of charter schools' Special Education population (61.0% vs. 55.0%) as did students who had "other health impairments" (5.5% vs. 4.7%).

With respect to academic achievement, the study found that the special-needs students (generally, without regard to disability type) in charters posted, on average, similar or better outcomes than their counterparts in regular public schools. For example, on the California Standards Test in English language arts, 13.7% of charter students scored proficient or advanced compared with 10.0% of noncharter students. On the math CST, the difference was smaller—14.4% of charter students versus 13.2% of noncharter students. Further, in every disability category, a higher percentage of charter students showed proficiency than noncharter students. However, the study's authors note, "It is not possible to discern whether these test scores reflect a higher initial baseline performance level or actual gains due to the education provided in charter schools."

^{*} The six districts were Chula Vista, Fresno, Los Angeles, Napa Valley, San Diego, and West Covina.

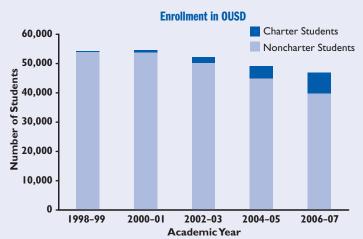
^{**} From 1998 through 2001, the SAT-9 was the primary standardized test administered by the state.

Profile of Charter Schools in Oakland Unified School District

The past several years have been especially challenging for Oakland Unified School District (OUSD). Bankruptcy led the district into state receivership, enrollment has been consistently declining, the district's student achievement and graduation rates are well below the state average, and leadership of the district has changed hands several times. On the positive side, the district has twice been recognized as the "most improved district" in California and has regained some of its decision-making authority from the state.

The charter segment grows while the district experiences declining enrollment

In the midst of declining overall enrollment, OUSD's charter school segment has grown steadily. Overall district enrollment decreased by 7,245 students from 1998-99 to 2006-07. During that period, charter school enrollments increased from less than 1% to 15.3% of total district enrollment. Altogether, 39 charters have opened in the district over the same time period (though several have since closed). In 2006-07, 29 charter schools were operating in OUSD, educating more than 7,000 students. The growth in



Oakland's charter movement has been characterized as coming mainly from the "grass-roots," as opposed to replication of charter management organization schools.

Academic Year	1998-99	2000-01	2002-03	2004-05	2006-07	
Charter Enrollment*	228	839	2,077	4,289	7,208	
Noncharter Enrollment	54,028	53,818	50,166	44,925	39,803	
Total District Enrollment	54,256	54,657	52,243	49,214	47,011	
* Enrollment data are not available for a few schools each year.						

The average size of a school in the district has decreased from 571 students in 1998-99 to 341 students eight years later. Several factors have influenced this shift: the increase of charter schools, which tend to be small; the overall decline

in district enrollment; and the replacement of some large noncharter schools with new, smaller schools. Compared with noncharter schools, the distribution of charter school students by age is skewed toward high school.

Academic Year	1998-99	2000-01	2002-03	2004-05	2006-07
Number of Charter Schools	3	9	14	19	29
Number of Noncharter Schools	92	92	102	109	109
Total Number of Schools	95	101	116	128	138

Charters prompt a number of policy conversations

While the district has been in state receivership and led by a series of state administrators, OUSD's outlook and policy regarding the continued growth of the charter movement has varied. To help promote more stability and coherence within Oakland, the California Charter Schools Association (CCSA) created the Oakland Collaborative, which provides school operators with networking and shared-learning opportunities. For its part, the district redesigned its Office of Charter Schools to more clearly define the district's standards and expectations for charter schools and provide increased support, according to David Montes de Oca, coordinator of that office.

Although some district stakeholders view charters as contributing to the financial instability of the district, others see them as a critical piece of OUSD's overall school reform strategy. These perspectives on the role of charter schools play out in discussions of whether charters should receive a portion of district parcel tax revenues and how facilities will be provided under Proposition 39, which requires that districts provide "sufficient" and "reasonably equivalent" facilities for charter schools.

Charter student demographics in Oakland Unified do not always mirror statewide trends

Students in Oakland Unified charters are less likely to be white or Asian and more likely to be Hispanic than their peers enrolled in noncharters. African American students make up a similar proportion of the students in both charters and noncharters, which bucks the statewide trend of African American overrepresentation in charter schools even though OUSD has one of the state's highest concentrations of African American students. Also counter to state averages, 35% of charter students in OUSD are English learners, but only 28% of noncharter students are classified as such. Approximately the same proportion of students eligible for free or reduced-price meals attend charter and noncharter schools. However, the district's charter schools may be less likely to participate in the meals program and have a higher percentage of high school students, who are less likely to use the meals program. Thus, the percentage of students from low-income families may be an undercount.

Close-up of Oakland Unified Charter Schools, 2006-07

22 Direct-funded; 7 Locally Funded 10 out of 29 Operated by CMOs

Within OUSD's charter community, four charter management organizations (CMOs) operate a total of 10 charter schools. CMO-run charter schools educate nearly half (47%) of all charter students in Oakland Unified. One charter school run by a CMO, Envision Schools, had its original charter petition denied by Oakland Unified; but it won approval from the Alameda County Board of Education.

27 Start-ups; 2 Conversions

Until 2005–06, all of the charter schools that opened in Oakland Unified were start-ups. However, in early 2005, the district began to consider options for reforming 13 elementary schools that would require restructuring under the federal No Child Left Behind Act (NCLB). The district requested proposals from outside organizations to take over the management of these schools. A CMO, Education for Change, converted two of the schools into charters. The other 11 schools were restructured according to other options provided under NCLB, including nine schools that became small (noncharter) schools.

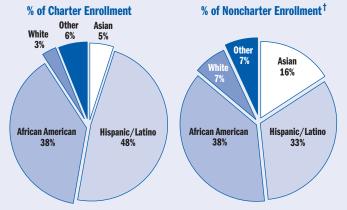
27 Classroom-based; 2 Nonclassroom-based

Almost all of the charter schools in Oakland are classroom-based. The exceptions in 2006–07 were two schools that used a combination of site-based learning and independent study. One of those schools had its charter revoked for the 2007–08 school year and is no longer in operation.

Oakland's charter middle and high schools outperformed their counterparts in 2006–07

At the elementary level, Oakland's charter schools had a lower average 2007 API Growth score (weighted by the number of valid student scores) than noncharters and the statewide average for elementary schools. However, at the middle and high school levels, district charters earned higher API scores than district noncharters. Oakland's charter middle schools also exceeded the statewide average API. These results do not control for student characteristics or school size.

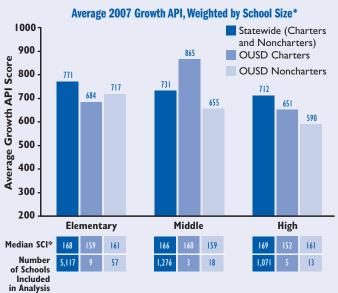
HIspanics are overrepresented in OUSD's charter schools



† The percentages may not add up to 100% due to rounding.

Median School Characteristics Index values provide a useful context for interpreting those unadjusted results. For example, Oakland's elementary charter schools had substantially lower scores than noncharters, but charters' median SCI was slightly lower (159 vs. 161). In addition, the much higher performance of Oakland's charter middle schools compared with noncharters becomes more impressive in light of the similarity of SCI values. And charter high schools' higher scores are particularly noteworthy given their substantially lower median SCI value. This relationship of performance and student demographics in charter high schools is common across the three districts profiled in this study.

OUSD's charter middle and high schools outperformed their counterparts on the 2007 Growth API (not controlled for SCI or school size)



* The average API and median SCI are weighted by the number of student scores used to calculate each school's API score. The resultant average API is effectively an API score for the group as if it were one big school. (This is different from controlling for school size, which takes into account the effect of school size on the API scores of individual schools.) The resultant median SCI is effectively the SCI value at which equal numbers of students are in schools with higher and lower SCI values.

Data: California Department of Education (CDE)

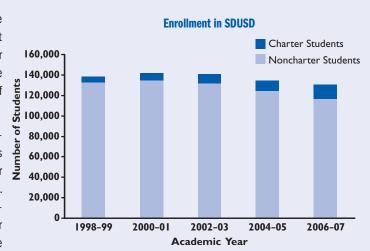
Profile of Charter Schools in San Diego Unified School District

District leadership has played an important role in how strongly charters have been encouraged in San Diego. Former superintendent Alan Bersin began in about 2004 to consider charters as an effective reform strategy. He promoted charter authorizations for struggling schools, though not with the support of the entire SDUSD community. By 2006, under Bersin's successor, Carl Cohn, the growth of charters slowed as the district pursued other school improvement strategies.

In addition, San Diego Unified charter schools have had some of the same difficulties securing adequate facilities as have the charters in the two other districts profiled in this report. And charters and SDUSD are grappling with another common source of tension—charters' "fair share" of Special Education costs. Further, the district office and the California Charter Schools Association supported closing some charters that were not succeeding academically or financially. In spite of these challenges, both the district's Office of School Choice and charter advocates express a commitment to building a constructive relationship that supports student learning.

While district enrollment declines, charter schools increase

The district has been experiencing a declining overall enrollment since 2000–01, losing more than 10,000 students in six years. Steadily increasing charter enrollment



over that same period (from 7,300 to 13,500 students) and a burst of 12 charter school openings in 2005–06 greatly expanded the charter segment within SDUSD. That year, almost 10% of the district's students attended charter schools. The percentage grew slightly in 2006–07, when the total number of charter schools increased by one to 36 schools. That year, 176 noncharter schools were open.

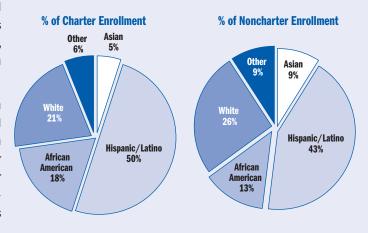
Academic Year	1998-99	2000-01	2002-03	2004-05	2006-07	
Charter Enrollment*	5,433	7,326	8,888	9,885	13,449	
Noncharter Enrollment	133,000	134,478	131,865	124,824	116,729	
Total District Enrollment	138,433	141,804	140,753	134,709	130,178	
* Enrollment data are not available for a few schools each year.						

Charters are more likely to serve middle grades students and also have a different ethnic mix from noncharters

The distribution of charter school students by age within SDUSD is skewed toward the middle grades. A smaller percentage of the district's elementary students attend charter schools. Unlike with the other two districts featured in this report, the percentage of high school students in charters is about the same as in noncharters in San Diego Unified.

Charters also have a somewhat different ethnic mix. Lower percentages of Asian and white students attend charter schools in SDUSD, and African American and Hispanic students represent a greater proportion of charter enrollments. English learner students constitute roughly equal proportions of charter and noncharter enrollments (28% and 29%, respectively). Noncharters serve a slightly higher percentage of students eligible for free and reduced-price meals. However, charters may not be as likely to participate in the meals program, so these numbers may underestimate the actual number of eligible students.

In SDUSD, charters are more likely to serve African American and Hispanic students in 2006–07



in Analysis

Close-up of San Diego Unified Charter Schools, 2006-07

7 out of 36 Operated by CMOs

CMOs have long been operating in the district. One of the first CMOs in California, High Tech High, has six high-performing charter schools in San Diego Unified. The organization began as one school and has replicated its original model. Altogether, CMOs run 19% of charters and educate 18% of the charter students in the district.

28 Start-ups; 8 Conversions

Although the majority of charter schools in San Diego have been direct-funded start-ups, the number of conversions has grown in recent years. The district converted three traditional schools into six charter schools in 2005–06 under the No Child Left Behind restructuring option. Two middle schools converted into charter middle schools, and one large elementary converted into four smaller charter elementary schools.

33 Classroom-based; 3 Nonclassroom-based

As with the two districts profiled earlier, classroom-based charters dominate the charter landscape in San Diego Unified. Of the three nonclassroom-based charters, one has been operating in San Diego since 1994, another since 2001, and the third since 2004–05.

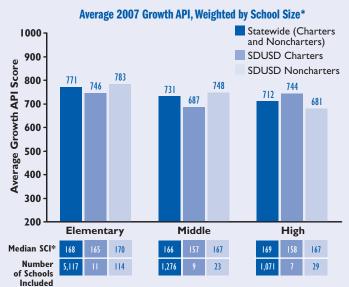
All 36 Direct-funded

No charters received their funding through the district, and many see themselves "almost as emerging districts," according to SDUSD staff.

Although SDUSD's charters serve more disadvantaged students, charter high schools perform better than noncharters on the API

On average, charter elementary and middle schools in San Diego Unified earned lower 2007 API Growth scores than their local counterparts and the statewide API averages. These scores do not, however, control for variation in student characteristics and school size. At both the elementary and middle school levels, charters serve a more disadvantaged group of students, as evidenced by their lower

San Diego Unified's charter elementary and middle schools do not perform as well as their noncharter counterparts, but they serve more disadvantaged students



* The average API and median SCI are weighted by the number of student scores used to calculate each school's API score. The resultant average API is effectively an API score for the group as if it were one big school. (This is different from controlling for school size, which takes into account the effect of school size on the API scores of individual schools.) The resultant median SCI is effectively the SCI value at which equal numbers of students are in schools with higher and lower SCI values.

median School Characteristics Index (SCI) values, which are associated with lower performance.

In contrast, San Diego's seven charter high schools score higher than noncharters and the state average despite serving a more disadvantaged group of students. These high schools tend to attract particularly motivated students, according to district staff.

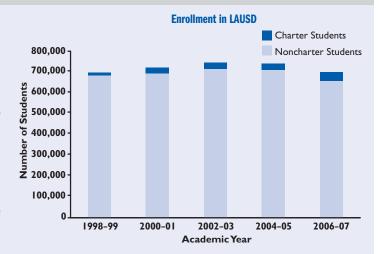
Data: California Department of Education (CDE)

Profile of Charter Schools in Los Angeles Unified School District

LAUSD's districtwide and charter enrollments have fluctuated in recent years

Los Angeles Unified School District (LAUSD) has been riding an enrollment roller coaster over the past seven years: Overall enrollments increased at a steady pace through 2003–04 and then began to just as steadily decline. District charter school enrollment has had a different trajectory, fluctuating somewhat until 2004–05 when the number of charter schools and the percentage of students enrolled in them started growing rapidly.

In 1998–99, the district had 19 charter schools (of more than 670 total schools) and charter school enrollments constituted only 2% of district students. Eight years later, 6% of students attended LAUSD's 103 charter schools, while the rest attended 677 noncharters. Compared with noncharter students, the distribution of charter school students by age is slightly skewed toward high school.



Academic Year	1998-99	2000-01	2002-03	2004-05	2006-07	
Charter Enrollment*	12,007	26,336	31,051	30,205	41,071	
Noncharter Enrollment	683,878	695,010	715,801	711,162	658,290	
Total District Enrollment	695,885	721,346	746,852	741,367	699,361	
*Enrollment data are not available for a few schools each year.						

Charter school students as a whole have different backgrounds from their noncharter peers

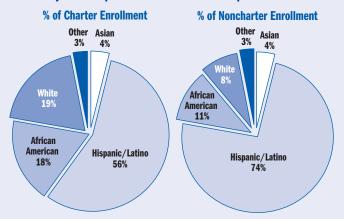
Students in LAUSD charters are more likely to be white or African American and less likely to be Hispanic than their peers enrolled in noncharters. This is similar to the statewide pattern, in part because LAUSD's charter community comprises such a large percentage—about one-sixth—of the state's total charter segment. LAUSD charters also enroll fewer English learners (28% vs. 38% for noncharters). In addition, the district's charters appear less likely than noncharters to serve children who are eligible for free and reduced-price meals (63% vs. 74% for noncharters). It should be kept in mind, however, that charter schools are less likely to participate in the meals program so not all eligible students would be counted. In addition, charters have higher percentages of high school students, who are less likely to take part in the meals program.

Close-up of LAUSD Charter Schools, 2006-07

88 Start-ups; 15 Conversions

During the first decade of the charter movement, most of LAUSD's charter schools were conversions. In 2001–02, three-quarters of the 39 charter schools operating in the district were conversion schools. However, many of them have since closed or converted back to traditional schools. Increasingly, new charter schools in LAUSD have been start-ups. According to the California Charter Schools Association, Los Angeles charter schools have received a relatively large share of philanthropic dollars compared with charters in other parts of the state. CCSA says that those funds have primarily helped start-up charter schools with initial—not ongoing—facilities or cash

LAUSD's charter students are more likely to be white and African American and less likely to be Hispanic than their noncharter peers



flow needs. By 2006–07, only 15 of the 103 charter schools in LAUSD were conversions, and just six of the original district conversions remained active.

93 Direct-funded; 10 Locally Funded

Those six remaining conversion charters are still locally funded. They are among the small minority (10) of locally funded charters in the district.

All 103 Classroom-based

Nonclassroom-based charters exist in the Los Angeles area, but LAUSD is the only district of the three profiled in this study to have never authorized a nonclassroom-based charter.

36 Operated by CMOs; 67 Not Operated by CMOs

Charter management organizations have a substantial and growing presence in Los Angeles Unified. Nine different CMOs currently operate in the district. Three of the largest CMOs in the state (Green Dot Public Schools, Alliance for College-Ready Public Schools, and Partnerships to Uplift Communities [PUC]) are committed to expanding within the district. Altogether, 35% of the charter schools in LAUSD are run by CMOs, but they comprise only 22% of the district's charter enrollment.

Among the several school reform efforts currently underway in Los Angeles Unified is an initiative to convert consistently underperforming schools into charters. Green Dot Public Schools won approval from the Los Angeles School Board to take control of a chronically underperforming high school in South Los Angeles beginning in the 2008-09 school year. The existing high school will be split into several academies serving smaller groups of students. Typically, charter conversions are led and organized by the school community or a district converts a school to a charter as a restructuring option under No Child Left Behind. The conversion of Locke High School to a charter will be the first to be initiated by a CMO.

Charter schools earn higher "raw" scores, but "adjusted" scores tell a different story

The average 2007 Growth API scores of the district's charter schools (weighted by the number of scores included) are higher than district noncharter scores. The

difference is not very large at the elementary level, but it is quite large among middle and high schools. However, these results do not take into account differences in student demographics or school size and are not displayed below.

The high number of schools in Los Angeles Unified allows for robust analyses based on statistical regression. However, only schoolwide measures are presented because analyses of single-grade measures involve fewer students and therefore have less reliability. After adjusting for differences in student demographics and school size, the API scores of charters and noncharters at the elementary and middle school levels are not different in a statistically meaningful way (not statistically significant). In contrast, among high schools, controlling for these same factors yields significantly better API scores (24.9 points on average) for LAUSD's charters than for noncharters. The results are displayed below.

As in the state as a whole, charters in Los Angeles are substantially smaller than noncharters. But LAUSD charter schools at all three levels generally serve students who are somewhat less disadvantaged than their noncharter counterparts. This runs counter to the statewide pattern, in which only elementary charter schools serve less disadvantaged students as a whole.

Comparing Charters and Noncharters in LAUSD (See pages 4–5 for a guide to interpreting the table below.)

Contextual Data—Elementary Schools Only Noncharters (446 schools) All Charters (29 schools) Number of Students 16,789 312,138 160.0 Median School Characteristics Index (SCI) 162.2 (range for middle half) (157.5-165.3)(156.7-179.9)397 Median Enrollment 651 (range for middle half) (479 - 883)(292-785)% Conversion/% Start-up N/A 41%/59% **Performance Data—Elementary Schools Only** 2007 Outcome Measure **Average Score** Charter Effect, After Adjusting for **Effect Size** for Noncharters **Enrollment and School Characteristics Growth 2007 API** 743.7 -13.7 API points -0.18AYP English—percent proficient or above (CST, all tested grades) 39.7% -1.2 percentage points -0.07 AYP Math—percent proficient or above (CST, all tested grades) 53.2% -7.2 percentage points*** -0.48

Contextual Data—Middle Schools Only				
	Noncharters (79 schools)	All Charters (17 schools)		
Number of Students	151,769	6,367		
Median School Characteristics Index (SCI) (range for middle half)	151.6 (148.3-155.9)	154.0 (149.5–159.8)		
Median Enrollment (range for middle half)	1,917 (1,522-2,297)	264 (228-336)		
% Conversion/% Start-up	N/A	6%/94%		
Performance Data—Middle Schools Only				
2007 Outcome Measure	Average Score for Noncharters	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	
Growth 2007 API	644.5	+2.3 API points	+0.03	
AYP English—percent proficient or above (CST, all tested grades)	27.8%	-1.4 percentage points		
AYP Math—percent proficient or above (CST, all tested grades)	23.4%	+1.6 percentage points +1		
Contextual Data—High Schools Only				
	Noncharters (65 schools)	All Charters (21 schools)		
Number of Students	172,419	12,537		
Median School Characteristics Index (SCI) (range for middle half)	150.8 (147.2-158.7)	153.0 (146.8-164.0)		
Median Enrollment (range for middle half)	2,955 (1,665-3,537)	303 (265-400)		
% Conversion/% Start-up	N/A	10%/90%		
Performance Data—High Schools Only				
2007 Outcome Measure	Average Score for Noncharters	Charter Effect, After Adjusting for Enrollment and School Characteristics	Effect Size	
Growth 2007 API	621.9	+24.9 API points*	+0.28	
AYP English—percent proficient or above (CST, all tested grades)	35.5%	-3.6 percentage points	-0.21	
AYP Math—percent proficient or above (CST, all tested grades)	36.0%	-1.1 percentage points	-0.07	

Charters prompt policy discussions

The presence of charter schools has generated a wide range of conversations about district efforts to improve student achievement and increase schools' autonomy, according to Jose Cole-Gutierrez, executive director of LAUSD's Charter Schools Division. Charters are one example of district efforts to grant schools, teachers, and students more flexibility and choice. In the Belmont area, for example, the district created a zone of choice to provide students and teachers with a number of "pilot school" options. Pilot schools have been granted more independence than most

traditional district-run schools. Further, LAUSD started an Innovation Division to support schools as they exercise greater decision-making authority.

In addition, the district's obligation to provide facilities for a growing charter movement has prompted larger discussions about the need—given limited space, escalating building costs, and efforts to replace some large schools with smaller ones—to develop a master plan for facilities districtwide.

Data: California Department of Education (CDE) $\,$

CONCLUSION AND APPENDICES



This analysis has limitations

Measuring and comparing the performance of schools is far from a perfect science. But as California works to improve the performance of its public schools and its students, it is important to use the tools and data that are available to assess the extent to which charters are helping the state move forward.

This EdSource report compares the academic performance of charter schools to that of noncharters. It also compares the performance of CMO charters to non-CMO charters. To increase the soundness of this study's conclusions, it controlled for the measurable student characteristics that are most strongly related to school performance.

However, like all analyses, this one has its limitations. The research technique used in this study can identify differences in performance that are not attributable to SCI factors and school size, but it cannot provide certainty that differences in achievement are attributable to a school's status as a charter or as a CMO-run charter.

In addition, as has been pointed out, a substantial portion of charter and noncharter schools are not represented in this study because they did not have all 2007 performance measures under analysis here. Therefore, readers should avoid generalizing the findings to all charter schools open in 2006–07.

With regard to the schools included in the analysis, the comparisons do not account for differences in schools' resources because school-level data on finances are not available. Just as regular public schools differ—substantially in some cases—in the resources they have available to them, so do charter schools. Some charters struggle with start-up funding and facilities challenges, and others are supported by private donations that allow for an enriched program.

In addition, the performance comparisons above do not take into account grade span differences among schools with the same school type designation. For example, comparisons of elementary schools include schools with students in kindergarten through fifth grade as well as K–8 schools. Narrowing comparisons to schools with similar grade spans would make them more "apples to apples," but the groups of schools could become too small to support statistically meaningful conclusions.

Nor does the study account for variation in how long schools have been open; therefore, it does not assess whether school staff face a learning curve with respect to student achievement. Measuring the performance of a school that has operated as a charter for only a year or two might be more of an assessment of the schools that its students previously attended than of its effectiveness.

Furthermore, this analysis does not account for what students bring to their respective schools, such as their prior achievement or motivation levels. Because data on students' achievement before entering their schools are not publicly available at the state level, this study's comparisons cannot isolate the academic growth that students achieve while attending a given type of school. (Some refer to this as schools' "added value.") In addition, the study is not able to account for possible differences in the motivation level of students attending different types of schools. This motivation level, which is obviously important to student achievement, may differ between noncharters and charters. Students only attend charter schools because their parents have chosen to send them there. This suggests to some that charter schools have a substantial advantage in student motivation and thus in performance comparisons. Certainly, one can find examples of charter schools that serve students from traditionally lower-scoring groups but whose motivation to succeed is high. However, charter operators can certainly also point to examples of

students in their schools with low motivation levels for a variety of reasons. And many different factors can prompt families to choose a school. Sometimes the rigor of the instructional program is the major factor; but in other cases, it may be the safety level, the ethnicity of the student body, or the school's location. Or it could be because their student has had behavioral or academic difficulties at other schools. RAND's findings (see page I7)—though not providing a current, statewide picture of students who transferred from regular schools to charters—suggest that charter and noncharter students may be more alike than different.

Finally, this study does not consider meaningful outcomes, such as graduation rates and college matriculation. The indicators covered here are primarily standardized test scores, which say something important about student achievement but do not capture all significant aspects of schooling. In addition, the measures discussed in this study overlap somewhat. For example, this study reports on high school exit exam scores and Academic Performance Index scores even though exit exam scores are reflected in API scores.

Findings on performance have been stable over time

This analysis of 2007 performance data yielded results that were similar to those of last year's EdSource report. (See "To Learn More" on the inside back cover.)

Although charter elementary schools lag behind their noncharter peers, charter middle and high schools outperform noncharters

Both the 2006 and 2007 performance data reveal that charter elementary schools as a group have lower API scores than traditional public schools, after controlling for differences in school size and student demographics. Lower math scores drive this difference. However, this year's analysis reveals that when only classroom-based charter elementary schools are considered, the difference in average adjusted API scores virtually disappears. Charters' deficit in math shrinks, and their advantage in English grows slightly.

Charter middle schools have again outperformed noncharter middle schools on every measure, and the differences in 2007 are generally greater than those of the prior year.

Finally, charter high schools have mixed results, just as they did in 2006. Their adjusted API scores are, on average, I4 points higher than noncharter high schools. However, API results mask the fact that charter high schools' English scores are higher and their math scores are lower.

The lower math scores that charter elementary and high schools post may indicate weaknesses in charters' educational programs or may simply bolster RAND's finding that students with low math scores are more likely to transfer to charter schools.

On the other hand, charter middle schools' perennially strong performance across all subjects prompts questions about what is different about those schools and whether others can learn from their methods.

Where charters are numerous, they appear to be having some impact

In Oakland, San Diego, and Los Angeles unified school districts, charter schools seem to be having at least some of the effect that founders of the charter movement intended. Charter schools in these areas have created a substantial alternative to district-run schools and thus have expanded choice and competition that, in turn, has stimulated discussions within those districts about the appropriate

level of school autonomy and the best way to serve students' needs and raise student achievement. It is possible that the relative success of charter high schools with students from traditionally lower-performing groups has helped spur those discussions. That said, perceptions of the impact of charters vary widely, and conversations with a few officials and a data analysis can tell only so much.

Charter schools run by CMOs continue to do well

Charters run by charter management organizations generally had another good year in 2007. In last year's study, EdSource reported that CMO-run charters scored, on average, 39.5 points higher on the 2006 Base API, after adjusting for SCI values and school size. That analysis combined the results of 59 schools run by 15 CMOs.

In contrast, this year's study reports the results of 75 schools run by 19 CMOs. The larger number of schools allows for statistically meaningful results to be reported for each school type (elementary, middle, and high). At all three levels, CMO charters serve more disadvantaged students and outscore their noncharter counterparts by sizable margins on the 2007 Growth API.

This year's study also reports the performance differential between CMO-run charters and regular (noncharter) public schools. CMO-run charters also fare well in that comparison, scoring much higher than noncharters, especially when only classroombased CMO charters are included.

Can CMOs serve as models?

Although similar schools rankings show that not all charter schools operated by CMOs are high achievers, many CMOs are creating conditions that allow their schools to excel.

In some cases, the CMO central office is led by experienced administrators, staffed by recent graduates of top business, law, and education schools, and funded by a combination of state funds and generous donations from individuals and foundations. These headquarters provide professional development for staff, help teachers and principals share best practices, and provide data analysis and program evaluation. Further, anecdotal evidence suggests that their teaching staffs include alumni of well-reputed undergraduate and graduate programs. In addition, their school leaders have freedom from many of the state regulations that govern noncharter public schools.

Thus, CMOs may show what public schools can achieve when all of the best ingredients are on hand. Although the entire California education community may not have access to all of the ingredients that create CMOs' success, other schools and districts could likely learn valuable lessons from these organizations. State leaders may also find that these schools provide an interesting case study for evaluating the pros and cons of a more flexible school funding system.

The Mathematica Policy Research and the National Charter School Research Project will soon research CMO effectiveness on a nationwide basis. This research should shed some light on the impact of these management organizations on student achievement and their internal structures and practices. It would be valuable if such research explored the relationships between CMOs and their chartering authority and described commonalities and differences between successful CMOs and successful districts. Findings from the three-year project could have important implications for all public schools in California.

Appendix A: Key Concepts and Terms of the Performance Analyses

This appendix provides more thorough explanations of many of the concepts that underlie this analysis as well as some technical terms used earlier in the report, including:

- Concepts that guided the analytic approach;
- The exclusion of some schools from this analysis;
- How schools are categorized;
- Why performance comparisons are done in two ways: 1) with all relevant charter schools, and 2) with only classroom-based charter schools included;
- Some statistical terms.

Three concepts guide the analytic approach:

a) Controlling for school characteristics—"validity"

Students' academic performance is strongly associated with their backgrounds, in particular their parents' education and income level. Because the school staff normally has no influence over these factors, it is important to try to statistically neutralize their effect when evaluating the performance of a school.

This report examines performance differences between groups of schools using a statistical technique known as "ordinary least squares regression," which controls for specific school characteristics. In this case, the report controls for school size and School Characteristics Index (SCI) values, a set of student and school characteristics the state has defined.

The research team controlled for the first variable—school size—because in many settings there is evidence of a link between school size and student achievement, and charters and noncharters differ substantially in their typical enrollments. The second variable—the SCI—is released annually as part of the Base API report. A school's SCI value, which can range from 100 to 200, primarily summarizes student demographics and, to a lesser extent, school and teacher characteristics that are associated with academic performance. Higher SCI values reflect factors associated with higher academic performance, such as less student poverty and higher parent education levels. (For more on the SCI, including its components and usefulness as a control variable, see Appendix B, page 30.)

By controlling for these two variables, this study provides a more valid assessment of schools' performance than would a comparison that did not take these characteristics into account.

b) Showing data from multiple years—"stability"

Findings that hold consistently across multiple years are stronger and more credible than those that are more short-lived. This research effort replicates the main 2007 analyses with data from previous years and notes whether the results have been stable over time. Results from the current year that contradict previous years are classified as low in stability. For example, if charters scored higher than noncharters in one year but lower than noncharters the next year, the stability would be considered low. If current results tend to go in the same direction as past ones but the magnitude of effects is different, stability would be classified as moderate. Finally, if current results track with past ones in both direction and magnitude, stability would be classified as high.

Reporting on multiple annual schoolwide results is not the same as performing a longitudinal analysis, which tracks the same students over time. A longitudinal analysis is not currently possible with California's publicly available data.

c) Triangulating findings using several performance indicators—"consistency"

Findings are more robust and defensible when they are consistent over time and across measures. This study reports school-level results from several measures to examine the consistency of findings. The specific indicators follow:

- The Academic Performance Index (API), which reflects scores from California Standards Tests (CSTs)ⁱⁱ in English, math, social science (for middle and high schools only), and science (in certain grades); the CAT/6, a norm-referenced testⁱⁱⁱ for grades 3 and 7; and the California High School Exit Exam (CAHSEE).
- Percent of students scoring proficient or above on CSTs in English language arts and math. For high schools, percent proficient is based on grade 10 results on the CAHSEE. Under the federal No Child Left Behind Act, all California schools have their performance monitored against annual measurable objectives as part of an evaluation for adequate yearly progress (AYP).
- Mean scale score on the CSTs for grades 4 and 7 for English and math, as well as grade 10 for

English. These grade-subject combinations reflect writing samples of fourth- and seventh-graders and the one math test that all high school students take. (Students in grade 8 and above take the math test corresponding to the level of math class they are enrolled in, which can range from general math to calculus or no math class at all.) In addition, focusing on one grade within each of the elementary, middle, and high school types helps address any problems arising from comparing schools that are considered the same type but serve different grade spans—e.g., K-5 and K-6 elementary schools.

Mean scale score of 10th graders on the CAHSEE
in English language arts and math. A mean—or
average—score can provide information that a
performance bar measure such as "percent proficient or above" cannot. For example, if a group of
students has a large percentage who score near, but
not quite proficient, its mean scale score will indicate that the group's scores are not nearly as poor
as the low "percent proficient or above" measure
might imply.

Some of these measures substantially overlap each other. For example, AYP and API results are different ways of "packaging" CST (and, for high schools, CAHSEE) scores. However, each of the measures reported here is important to educators and policy-makers in its own right because each gives a different look at performance. For example, AYP results indicate the percentage of students meeting the federal and state goal of proficiency on state content standards, but API scores indicate the distribution of scores across the entire spectrum of performance levels on the CSTs. And, as stated above, reporting CST results from individual grades helps create "apples to apples" comparisons of schools with different grade configurations.

Results on different measures that conflict, or suggest different conclusions about performance, are classified as low in consistency. If current results tend to go in the same direction but vary in the size of effects, consistency will be classified as moderate. Finally, if results track each other in both direction and size, consistency will be classified as high.

Not all schools are included in this analysis

The analyses in this report include only schools with data from all of the performance measures used. This means that 38% of the 617 charter schools and 21% of the 8,962 noncharter schools that were open in 2006–07 are not represented in this study.

The vast majority of excluded schools—about 80% of charters and 96% of noncharters—lack API and/or SCI data. For charters, this primarily occurs when schools are too small. Schools with valid API scores from fewer than 11 students are not given API or SCI scores. Most excluded charters have 11–99 API scores. Those schools receive API but not SCI values.

Most of the excluded noncharters have fewer than 11 valid scores and are held accountable under California's Alternative Schools Accountability Model (ASAM). (Schools serving a majority of "at risk" students, such as continuation and community schools, are placed in the ASAM.) Schools with API data but lacking an SCI value are often ASAM or Special Education schools, or they have 11–99 valid API scores. iv

Schools were excluded from the performance analyses primarily because they lacked API data or an SCI value^v

	Charter	Noncharter
Schools open in the 2006–07 school year	617	8,961
Open in 2006-07 but not included in the analysis		
Lacked API	35	628
Lacked SCI	182	1,119
Lacked AYP percent proficient in English or mathematics	3	4
Lacked CST mean scale score in English	11	126
Lacked CST mean scale score in mathematics	2	3
Lacked CAHSEE scale score in English or mathematics	1	0
Schools included in the performance analyses	383	7,081

Data: California Department of Education (CDE)

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This report classifies charter schools in multiple ways

By school type-elementary, middle, and high schools

This report classifies schools as elementary, middle, or high based on how the California Department of Education (CDE) categorizes them for the API. The CDE generally classifies schools based on the number of grades a school has in the "core" grade spans of K-5, 7-8, and 9-12. For example, a K-8 school (a common charter school grade configuration) would be considered an elementary school because it has six grades in the K-5 span and two in the 7-8 span. However, if a school has grades in all three spans, it is classified according to the largest enrollment in a core span served. For example, a school serving all K-12 grades (another common configuration among charters) would be classified as a high school if most of its students were in grades 9-12. (See "To Learn More" on the inside back cover.)

Charters run by charter management organizations

For this report, a CMO is defined as an organization, or branch of an organization, that provides or has plans to provide significant, ongoing administrative support to multiple charter schools. CMOs start charter schools and create a unifying vision for them. They also develop curricula, facilitate information sharing among their schools (e.g., on "best practices"), and streamline administrative costs.

Last year's EdSource report included only organizations that had been *created* as a CMO, but this year's report also includes those that became a CMO after a group started one school and decided to create other similar charters. However, this report does not include organizations that created one charter school and then later created nearby charters simply to serve students feeding into or graduating from the original school. (Some refer to such groups of schools as "families" of schools.) This analysis also excludes from the CMO category all-charter districts and agencies created to serve a different or broader purpose but that also run one or more charter schools as part of that broader mission. Thus, the small handful of Conservation Corps offices and universities that support charter schools are not included as CMOs in this analysis. Altogether, 19% of charter schools represented in this analysis are CMO charters.

Conversion and start-up

A conversion charter school is one that began as a "regular" public school but was converted to charter status. In contrast, a start-up charter school is one that charter operators started from scratch. Conversions

comprise 22% of the charters represented in the performance analyses, and start-ups make up 78%.

Classroom-based and nonclassroom-based

A charter school is considered classroom-based when at least 80% of its instructional time occurs on site under the direct supervision of a teacher. Charter schools not meeting that threshold are considered nonclassroom-based. Charters that provide a substantial portion of their instruction through home schooling, independent study, or distance learning (instruction via Internet-connected computers) generally fit that definition, as do schools that rely heavily on community-based learning through internships and field trips. Classroom-based schools constitute 80% of the charters analyzed here, and nonclassroom-based charters make up 20%. However, nonclassroom-based charters are not evenly distributed among the grade span types in this analysis: 38% of charter high schools, 14% of charter elementary schools, and no charter middle schools are nonclassroom-based.

Performance comparisons are done with all charters and with only classroom-based charters included

For each performance comparison in this report, the analysis is done in two ways:

Count of Charters in this Analysis, Crosstabulated by Grade Level and Type

Member of Charter Management Organization (CMO) or Nonmember	Classroom-based or Nonclassroom-based	Elementary	Middle	High	Total
CMO Charter	Classroom-based (62)	24	15	23	62
(75 schools)	Nonclassroom based (13)	8	0	5	13
Non-CMO Charter	Classroom-based (246)	147	42	57	246
(308 schools)	Nonclassroom-based (62)	17	0	45	62
		196	57	130	383

Data: California Department of Education (CDE)

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- With all charter schools in the relevant group (e.g., elementary schools) that have all relevant performance measures: and
- With only classroom-based charter schools in the relevant group (e.g., elementary schools) that have all relevant performance measures.

The first method reflects the expectation that all charter schools should strive to help their students master the state academic content standards and should be held accountable for the same performance goals. It includes nonclassroom-based charters because they are part of the state's charter movement and because they sometimes may be attempting to reach the same goals with similar students but in a different instructional mode.

The second method, which includes only classroombased charters, reflects the belief that many nonclassroom-based charter schools are so different from other charters and regular public schools in their instructional program and the students they serve that they should not be measured in the same way. For example, some nonclassroom-based charters serve young working adults who have decided to return to earn their diploma or communities who want to create unique approaches to learning.

Two statistical terms are key to understanding the performance results

Statistical significance

A result is statistically significant when the analysis shows it is probably not due to random variation alone. (Think of a coin being flipped 100 times. One would expect "heads" to come up 50 times, but chance variation may produce, say, 45 or 55 heads. If heads instead came up 30 or 70 times, however, one would suspect that the coin was weighted to one side or the other.)

Researchers vary somewhat in the threshold they use for statistical significance. This study follows one common practice, reporting statistical significance at three levels: 0.10, 0.05, and 0.01,vi Those levels indicate the chance that a result is due to random variation. For example, a result that is statistically significant at the 0.10 level means that there is a 10% chance that the result is due to random variation.

Statistical significance gives information about the likelihood of a result, but it does not indicate the size of an effect. For example, it does not tell whether a difference of four API points is large, moderate, small, or negligible. Effect size

Another measure-effect size-helps to interpret the magnitude of the results. It puts performance

comparisons in relation to the variation of performance of each group.vii The most common guidelines for interpreting effect size propose values of 0.20, 0.50, and 0.80 to represent, respectively, small, moderate, and large effects.

Effect size also places results from various measures such as API and AYP on a common scale. For example, the performance comparison of charter middle schools and noncharter middle schools on page 7 indicates that, after adjusting for differences in student characteristics and school size, charters scored, on average, 45.2 points higher than noncharters on the API. It also shows that charters outperformed noncharters on the percentage of students scoring proficient or above on the California Standards Test in English by 7.8 percentage points. Differences of 45.2 API points and 7.8 percentage points are not on the same scale, but the effect sizes-respectively, 0.49 and 0.42-are on the same scale and indicate that the effect of being a charter middle school on API scores and the percent proficient and above on the English CST are about the same. In this case, the effect is moderate, based on the guidelines described above.

Appendix B: Elaboration on the School Characteristics Index (SCI)

The School Characteristics Index (SCI) is a powerful "control variable"

The state created the School Characteristics Index (SCI) to summarize multiple factors associated with student performance on state tests. When comparing the performance of groups of schools, this study "controls for" schools' SCI values. This makes it possible to estimate how one group's performance would compare with another group's if they had similar students and teachers. The SCI's factors are described below.

The Schools Characteristics Index includes the following factors:

- Student ethnicity—percent in each of seven ethnic categories;
- Average parent education level;
- Percent of English learners;
- Percent of students whose classification has changed from "English learner" to "redesignated fluent English proficient" (RFEP). (Note that students who have been reclassified have the same effect as English learners on a school's SCI. Thus, a school does not suffer a "penalty" for redesignating an English learner.);
- Percent of students with disabilities:
- Percent of students in the Gifted and Talented Education program (GATE);
- Percent of migrant education students;
- Percent of students in the free/reduced-price meals program;
- Percent of fully credentialed teachers;
- Percent of teachers with emergency permits;

- Average class size;
- School mobility—percent of students not continuously enrolled since early October;
- Whether the school operates a multitrack, yearround educational program; and
- Percent of enrollment in various grade spans.

What makes something a strong "statistical control"?

As a group, charter schools perform somewhat differently from noncharter schools. Likewise, there are differences among different types of charter schools. As noted elsewhere, the goal of this analysis is to see how much of that difference is based on a school's status as a charter school or a particular type of charter.

To inform that question, the study controls for differences in schools' SCI values and another factor believed to have some relationship to school performance—school size.

The table below shows the proportion of variation in school performance that is explained by the combination of SCI and school size. Statisticians refer to this proportion of variation as "R²," and the closer R² is to 100%, the more the model explains any differences. In this study's models, the R² ranges from 51% to 79% depending on the outcome measure and grade span. Those percentages are very high by education research standards. (The SCI, as opposed to school size, accounts for the vast majority of the variation.) The data below are for the charter-versus-noncharter analyses.

The large proportion of variation explained by SCI and school size increases the confidence in this study's estimates of the effect of charter status (or being a specific type of charter school) on academic performance.

See www.cde.ca.gov/ta/ac/ap/documents/tdgreport0400.pdf for the technical foundation of the SCI or see www.cde.ca.gov/ta/ac/ap/documents/simschl06b.pdf for a less technical summary.

This analysis uses the 2006 SCI as a control variable for 2007 performance data

The 2007 SCI would be a logical control to use with 2007 performance data, but this measure was not available when this report was being prepared. (According to the California Department of Education, the complexity of adding the California Modified Assessment, a test for students with disabilities, to the 2007 Base API led to a delay in the public release of the 2007 Base API, which includes the 2007 SCI data.)

Because the 2007 SCI was not yet available, this study uses as a control variable the 2006 SCI, which is an effective proxy for the 2007 SCI. Historically, SCI values have been highly correlated over time. (The correlations between the 2002, 2004, 2005, and 2006 SCIs range from 0.949 to 0.984 on a scale of 0.0–1.0. The 2003 SCI is acknowledged to contain a calculation error.) Thus, even though it reflects the prior year's data, the 2006 SCI is a strong control variable for the 2007 performance analyses.

SCI and school size explain a large proportion of variation (R2) in analyses of charters vs. noncharters

Proportion of Explained Variation—R ² —in Models Including Only SCI and Size					
2007 Outcome Measure	Elementary	Middle	High		
Growth API	74%	77%	66%		
AYP English language arts	78%	79%	67%		
AYP Math	63%	65%	58%		
CST English language arts	74%	76%	63%		
CST Math	51%	59%	N/A		
CAHSEE English language arts	N/A	N/A	69%		
CAHSEE Math	N/A	N/A	64%		

Data: California Department of Education (CDE)

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Appendix C: Unadjusted Performance Data

The performance comparisons on pages 6 to 12 show average unadjusted scores for noncharters and non-CMO

charters but not the comparison groups. The tables below show average unadjusted scores for all groups. Readers

should keep in mind that the scores here do not take into account differences in student demographics or school size.

Comparing Charters and Noncharters

Unadjusted Performance Data—Elementary Schools Only	(corresponding to page 6)			
2007 Outcome Measure	Average Score for Noncharters (4,921 schools)	Average Score for Charters (196 schools)	Average Score for Classroom-based Charters Only (171 schools	
Growth 2007 API	772.4	770.2	773.1	
AYP English—percent proficient or above (CST, all tested grades)	47.4%	50.1%	49.2%	
AYP Math—percent proficient or above (CST, all tested grades)	56.1%	51.5%	53.0%	
CST English, Grade 4—mean scale score	354.1	359.9	359.5	
CST Math, Grade 4—mean scale score	367.3	361.8	365.3	
Unadjusted Performance Data—Middle Schools Only (corre	esponding to page 7)			
2007 Outcome Measure	Average Score for Noncharters (1,219 schools)	Average Score for Charters (57 schools)	Average Score for Classroom-based Charters Only	
Growth 2007 API	733.8	754.2	All charter middle	
AYP English—percent proficient or above (CST, all tested grades)	45.3%	48.7%	schools in this analysis are classroom-based.	
AYP Math—percent proficient or above (CST, all tested grades)	39.3%	43.2%		
CST English, Grade 7—mean scale score	343.9	350.5		
CST Math, Grade 7—mean scale score	337.5	346.4		
Unadjusted Performance Data—High Schools Only (corresp	onding to page 8)			
2007 Outcome Measure	Average Score for Noncharters (941 schools)	Average Score for Charters (130 schools)	Average Score for Classroom-based Charter Only (80 schools)	
Growth 2007 API	708.0	689.4	710.4	
AYP English—percent proficient or above (CAHSEE, Grade 10)	51.2%	47.7%	49.8%	
AYP Math—percent proficient or above (CAHSEE, Grade 10)	52.4%	39.1%	45.0%	
CST English, Grade 10—mean scale score	334.6	331.2	338.3	
CAHSEE English, Grade 10—mean scale score	378.3	377.1	381.2	
CAHSEE Math, Grade 10—mean scale score	382.6	373.8	380.0	

Data: California Department of Education (CDE)

Within Charter Comparisons—CMO charters vs. Non-CMO Charters

Unadjusted Performance Data—Elementary Schools Only (corresponding to page 10)							
2007 Outcome Measure	Average Score for Non-CMO Charters (164 schools)	Average Score for CMO Charters (32 schools)	Average Score for Classroom-based Non-CMO Charters (147 schools)	Average Score for Classroom-based CMO Charters (24 schools)			
Growth 2007 API	773.3	754.1	775.9	755.8			
AYP English—percent proficient or above (CST, all tested grades)	50.7%	47.0%	50.2%	43.2%			
AYP Math—percent proficient or above (CST, all tested grades)	52.0%	49.1%	53.0%	52.7%			
CST English, Grade 4—mean scale score	360.5	356.6	360.3	354.0			
CST Math, Grade 4—mean scale score	362.2	359.8	364.4	371.1			

Unadjusted Performance Data—Middle Schools Only (corresponding to page 11)

2007 Outcome Measure	Average Score for Non-CMO Charters (42 schools)	Average Score for CMO Charters (15 schools)	Average Score for Classroom-based CMO Charters	Average Score for Classroom-based Non-CMO Charters	
Growth 2007 API	746.5	775.7	All charter middle schools in this analysis are classroom-based.		
AYP English—percent proficient or above (CST, all tested grades)	48.8%	48.6%			
AYP Math—percent proficient or above (CST, all tested grades)	41.1%	49.2%			
CST English, Grade 7—mean scale score	349.2	354.2			
CST Math, Grade 7—mean scale score	343.2	355.2			

Unadjusted Performance Data—High Schools Only (corresponding to page 12)

2007 Outcome Measure	Average Score for Non-CMO Charters (102 schools)	Average Score for CMO Charters (28 schools)	Average Score for Classroom-based Non-CMO Charters (57 schools)	Average Score for Classroom-based CMO Charters (23 schools)
Growth 2007 API	694.0	672.8	720.7	685.0
AYP English—percent proficient or above (CAHSEE, Grade 10)	48.8%	43.9%	52.0%	44.5%
AYP Math—percent proficient or above (CAHSEE, Grade 10)	39.4%	38.2%	46.4%	41.6%
CST English, Grade 10—mean scale score	332.6	326.2	342.0	329.2
CAHSEE English, Grade 10—mean scale score	378.1	373.5	383.4	375.6
CAHSEE Math, Grade 10—mean scale score	374.9	370.1	382.6	373.4

Data: California Department of Education (CDE)

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Endnotes

Tests for "stability" involved analyses on 2007 data as well as data at two additional points in time, based on the availability and reliability of the data. Academic Performance Index (API) and California Standards Test (CST) scores were examined at 2007, 2005, and 2003. Adequate yearly progress (AYP) and California High School Exit Exam (CAHSEE) data were examined at 2007, 2006, and 2005.

ii Students with significant cognitive disabilities who are unable to take the CSTs take the California Alternate Performance Assessment (CAPA). CAPA scores play a part in the API and AYP measures.

iii A norm-referenced test is one with scores that are expressed in terms of a student's performance relative to a nationally representative sample of students.

^{iv} More information on the ASAM is available on the California Department of Education's website: www.cde.ca.gov/ta/ac/am/

Any schools that have more than one of these reasons are reflected only once in the table, in whichever reason is closest to the top of the table.

vi In this report, tests of statistical significance are usually based on a t-test applied to a regression coefficient.

vii Schools are usually the unit under study in this report. Thus, an effect size of 0.50, for example, indicates an effect that is about half as large as the typical variation in school-level scores. Effect sizes are often reported in the context of individual-level scores. Because this report's data are at the school level and may not even exist at an individual level (e.g., API), it makes sense to compare these findings with the school-level standard deviation. The reader should be cautious, however, because guidelines for interpreting effect size vary and usually are based on individual-level distributions.

viii The California Department of Education (CDE) uses the School Characteristics Index (SCI) in its calculation of "similar schools rankings." Each school's rank is computed based on how its API score compares to 100 schools with similar SCI values. The CDE uses statistical regression to calculate schools' SCI values.



To Learn More

Information on charter school laws and policies

Under Education Issues, see the charter school section of EdSource Online for an overview, relevant data, and a list of EdSource publications related to charter schools: **www.edsource.org**

The California Department of Education (CDE) also provides a great deal of information on its website: www.cde.ca.gov/sp/cs/re

For more details on how the CDE categorizes schools as elementary, middle, or high schools for the Academic Performance Index (API), see: www.cde.ca.gov/ta/ac/ap/schltypedef07g.asp

Data about individual charter schools in California

The Ed-Data Partnership website—**www.ed-data.k12.ca.us**—provides a wealth of data about every charter school in California, including student background, staffing information, and summary adequate yearly progress and Academic Performance Index reports. Data from as far back as 1992–93 are available. In addition, a "Compare Schools" feature on Ed-Data allows you to develop customized reports comparing schools you select. You can also use this feature to create lists of California charter schools you would like to see. For example, you can request the 20 charter high schools with the highest enrollments or all of the elementary charters that have 100% fully credentialed teachers.

The GreatSchools website—**www.greatschools.net**—provides free profiles of all California schools with performance, student, and teacher data. For a small membership fee, the site also makes available comments from parents and principals about the schools.

Charter school organizations

See the California Charter Schools Association's website: www.myschool.org
See the Charter Schools Development Center's website: www.cacharterschools.org

Other research

To learn more about the quality of research on the academic performance of charter schools, as well as recommended analytic methods, go to the National Charter School Research Project's website at **www.ncsrp.org**. In addition to reports on methodology, the site contains a report on charter management organizations: *Quantity Counts: The Growth of Charter School Management Organizations*.

RAND's October 2005 study, *The Effect of Charter Schools on School Peer Composition*, can be found at: www.rand.org/pubs/working_papers/WR306

The website of the Center on Educational Governance at USC's Rossier School of Education contains substantial research on charter schools, including recent reports on "Charter School Indicators." See: www.usc.edu/dept/education/cegov/charterschools projects.html

EdSource's prior reports on charter performance and policy can be found at:

www.edsource.org/pub_chart.cfm

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