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CHARTER SCHOOLS IN CALIFORNIA: A REVIEW OF THEIR AUTONOMY AND RESOURCE ALLOCATION PRACTICES

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The AIR research team takes sole responsibility for the entire substance and content of this report

EXECUTIVE SUMMARY

This report presents the results from a seven-month study of charter schools in California performed by the American Institutes for Research (AIR). This study is part of a larger group of studies coordinated through Stanford University and funded by the Bill and Melinda Gates Foundation, the William and Flora Hewlett Foundation, the James Irvine Foundation, and the Stuart Foundation.

Charter schools are nonsectarian public “schools of choice,” designed to provide an alternative to regular public schools. They are either created from scratch (“start-up”), or are converted from a regular public school (“conversion”). They are not bound by many of the regulations that apply to traditional public schools. This study explored differences in resource levels, resource allocation decisions, and student performance between California’s charter schools and the state’s traditional public schools. The overall purpose of the paper is summarized in the following research questions:

1. To what extent are charter schools operating without traditional governing rules, and how is this independence related to academic success?
2. Are the resource allocation practices observed in charter schools substantially different from regular public school practices? Is there evidence that these differing practices relate to academic success?
3. Can individual charter schools be identified with especially unique resource allocation patterns? What are they doing that is different, and how do these practices appear to affect student outcomes?

BACKGROUND

In 1992, California became the second state in the country to enact charter school legislation, after Minnesota. The movement has expanded rapidly since then, and today over one million students are enrolled in over 3,600 charter schools across the U.S. California has more charter schools than any other state, and 20 percent of the students attending a charter school nationwide are in California. In California, 1 out of every 20 public schools is a charter, and 1 out of 50 students go to a charter school. The schools are not without controversy. Opponents assert that charter schools will skim the best students, drain resources away from traditional public schools and promote racial segregation. Supporters claim that these schools will promote innovation and will foster competition between charters and traditional public schools, thereby improving the overall quality of education for all.

In California, an analysis of statewide data reveals that charter schools, on average, serve a lower percentage of Hispanic students than regular public schools, and a higher percentage of African-American and White students. They also serve a lower percentage of English learners, students eligible for free and reduced price lunch, and students in special education. Charters are intended

to receive approximately the same amount of funding per student as other public schools, regardless if they are locally or directly funded. Charter schools in the state struggle to find available sources of facilities funding. This has proven to be one of the largest obstacles to starting a charter school. Conversion charter schools generally have their facility prior to converting; start-up schools usually have to acquire a facility and spend some portion of their operating budget on facilities leases or purchases.

FREEDOM FROM TRADITIONAL RULES AND RESOURCE ALLOCATION PRACTICES

Almost no research has been performed in the area of charter school resource allocation, and there is a lack of consensus in the literature regarding charters' academic performance. One objective of this study was to be able to determine how much freedom charter schools have from traditional governing rules, and whether the degree of freedom affects the way schools allocate their resources, or affects their models of instruction, the type of students they serve, or their level of academic performance. We attempted to do this by categorizing the schools based on their degree of independence, which was represented by how they are funded, what types of services they receive from their chartering agency, and whether teachers have collective bargaining contracts. We then built a comprehensive school-level personnel database that provides the quantities and characteristics of traditional and charter public schools. The next step was to develop a theoretical model on which to base our analysis.

In summary, due to the limitations of available data, it is difficult to determine the extent to which most charter schools are in fact operating beyond traditional governing rules. We purposely chose six charters to visit that we thought would be quite different from one another as well as from traditional public schools. After visiting these schools, we did in fact see a great deal of variation on such important attributes as how they were staffed, how personnel was used, contract relations with staff, curriculum design, and the availability and use of space. The charter schools in which these variations were viewed were those that were quite independent of district governance.

How this independence related to academic success is more difficult to assess. The independent schools among the sites visited tended to score well compared to non charters with like populations. As described, however, even though charter law, and perhaps their own preferences, precluded them from choosing students outright, parents and students had to seek out the school and its expressed mission to end up there. In this way, there was clearly some selection bias involved in the interpretation of these test score differences. In addition, several of these schools had outcome goals that went well beyond traditional test score measures. Another way to consider their academic success was the relative demand for the services they were providing. In several of these schools demand to attend clearly exceeded the space available.

Regarding the second research question of this study, resource allocation data are not very insightful in regard to the differences we actually observed on site. However, when we analyzed charter schools in the aggregate, we found that, in terms of personnel, charter schools differ somewhat from regular public schools and among themselves in accord with their degree of independence. In general, although no differences are detectable in the levels of teaching staff, we find that charters tend to have more school-based administrators and fewer school-based

pupil support staff. Also, teachers and administrators in charter schools have substantially fewer years of experience in comparison to their counterparts in regular public schools. Within charters, schools with a high degree of independence tend to distinguish themselves most clearly from regular public schools, while charters with a low degree of independence tend to closely resemble traditional public schools.

One striking resource allocation measure, however, that did appear in current data is the percentage of teachers holding tenure. Where 60 percent of teachers have tenure in regular public schools, across all charters this is 22 percent. Based on the typology developed earlier in this report, this variable ranges from 39 percent in charters with low independence to only 7.5 percent in charters with a high degree of independence. This may be a variable worth further consideration in subsequent charter studies as a possible proxy measure for determining charter independence.

When we analyzed charter school academic performance relative to resources and student characteristics, we found that highly independent charters and regular public schools are performing at the level that is predicted by their resources and students characteristics. In addition, both groups of schools are also performing at similar academic levels as measured by the California Standard Test (CST) in English language arts. When the academic achievement is measured by the CST mathematics, results show that these schools are not only performing at a much lower level than regular public schools, but also that their performance level is substantially lower than expected.

The third major research question we investigated is whether individual charter schools can be identified with especially unique resource allocation patterns, what are they doing that is different, and how these practices appear to affect student outcomes. Most of the charter schools we visited had unique resource allocation practices that are different from what we generally observe at non-charter or more traditional charter schools. However, most of what we observed was not well reflected in our analyses of extant state resource data. The types of innovative practices we observed that do not show up in state-level resource allocation data include a full day of every week engaged in learning activities in the community, a longer instructional year, or the fact that all of the school's students can stay at the school until after five and indeed can not leave until a designated party personally picks them up.

However, one important resource allocation difference that was referred to in all of the five highly independent schools we visited was the ability to easily hire and remove teachers. This importance resource difference seems to apply to some extent across the full universe of charter schools, and especially among highly independent charters. These practices were possible at these sites because there was no union contract to preclude them. The charter leaders we interviewed were very clear, however, that their staff could unionize if they chose to do so and acknowledged that this might happen.

POLICY DISCUSSION

The charter school movement has expanded rapidly since 1992, and as mentioned, these schools are not without controversy. This study attempts to move beyond specific questions as to whether charters are inferior or superior to non-charter schools and whether their addition helps or hurts public education overall. Rather, we attempt a finer grain assessment of alternative charter school policies and resource allocation practices in California.

Our findings suggest that charter schools are much more heterogeneous than non-charters. While it can be argued that non-charter publics are most striking regarding the high degree of similarity in the ways they are structured and organized, charters are much better characterized by the degree to which they differ from one another. Given these differences, attempts to compare charters and non-charters in the aggregate on such key policy questions as to whether they are more or less effective in producing student outcomes with more or less funds than non-charters seem unlikely to be helpful in understanding what is really going on among the universe of charter schools and the policy implications of alternative charter provisions.

Another argument for moving beyond the debate of whether charters as a group are somehow superior or inferior to non-charter schools is the strong indication that charters are here to stay. As the number of charter schools in California has been growing rapidly over the past several years, it seems increasingly important that better ways be developed for characterizing these schools in databases that lend themselves to analyses by charter characteristics that truly distinguish one type of charter from another.

As an example, better measures of the degree of independence from a governing school district seems quite important in distinguishing among charters and the degree to which they are employing resource allocation and instructional practices that differ substantially from non-charter schools. While much of the variation we observed seemed to emanate from local policy or the school's relationship to the local school district, the nature of these relationships are clearly influenced by the state policies that affect them.

It has been noted that while California has one of the most highly regulated non-charter public school systems in the country, its charters are perhaps the least regulated. Given this scenario in which we have one sector of public schools in which we are increasingly tightening the reins of governmental control and a growing sector for which we have largely let go of the reins, it seems vital that we take full advantage of this opportunity to learn more from the state's emerging population of charter schools in regard to which areas of regulation and oversight are important to retain and which should be relaxed to enhance the productivity of all of California public schools.

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CHAPTER I. INTRODUCTION

INTRODUCTION

This study presents the results of a seven-month effort undertaken by the American Institutes for Research to investigate charter schools in California. This research has been coordinated through Stanford University as part of the “Getting Down to Facts” series of studies, and funded by the Bill and Melinda Gates Foundation, the William and Flora Hewlett Foundation, the James Irvine Foundation, and the Stuart Foundation.

This research is part of a series of studies designed to provide California’s policy makers and other education stakeholders with information to assist in raising student achievement and repositioning California as an education leader. The main overarching theme across these studies is how to consider educational adequacy in the state. The contribution of this paper is to shed some light on what is possible when the current public education system is deregulated: how schools use that potential autonomy, and the impact on their resource allocation practices and delivery of educational services.

One criticism of virtually all approaches to the consideration of education adequacy is that they maintain the status quo of the traditional public school system. An interesting question to ask is what resource allocation practices are possible if schools operate in a much less centralized and highly deregulated fashion. One way to attempt to answer this question is to look first at schools that, within the traditional public school system, have been operating (or at least have had the option to operate) without traditional governing rules.

As publicly funded schools, charter schools provide an appealing point of comparison. Charter schools are nonsectarian public “schools of choice,” designed to provide an alternative to regular public schools. They are not bounded by many of the regulations that apply to traditional public schools. Although charter regulations vary dramatically across the states, and charter schools vary considerably from one another within a given state, there are some potential common characteristics from which to take a broader perspective in regard to how public education might be provided.

In short, a major impetus behind this study seemed to be an interest in true variations in regard to resources within the public schooling sector. If true outliers in regard to resource use could be found across the public schooling sector, it seemed most likely that they would be found among charter schools, which are afforded much greater freedom and latitude in regard to what they are allowed to do. Even within this much more permissive environment, do we find schools that are doing something substantially different than other public schools? If yes, what is it? What appear to be the implications for student outcomes? To what extent are these differences an artifact of more permissive charter provisions, as opposed to something that virtually all public schools could do if they chose to reorganize themselves in this way?

The specific questions this study addresses are as follows:

1. To what extent are charter schools operating without traditional governing rules, and how is this independence related to academic success?
2. Are the resource allocation practices observed in charter schools substantially different from regular public school practices? Is there evidence that these differing practices relate to academic success?
3. Can individual charter schools be identified with especially unique resource allocation patterns? What are they doing that is different, and how do these practices appear to affect student outcomes?

In order to address these research questions, the research team evaluated the governing rules that guide the operation of charter schools. We conducted six site visits to charter schools in order to investigate their unique characteristics and resource allocation patterns. In addition, this study includes an overall statewide analysis of resource allocation practices observed in charter and traditional public schools. In this analysis, charter schools were classified by their degree of independence from traditional governing rules.

This report is organized into five different chapters. The second chapter provides an overview of the charter school movement in the state and the nation. The third chapter includes a discussion around the autonomy and flexibility that charter schools have. In addition, it explains the typology that was used to classify charter schools by degree of independence in our analysis. Chapter four presents the results of our resource allocation analysis in charter and traditional public schools. It also provides a framework that is used to relate differences in resources to differences in student academic achievement. The last chapter presents the results of our case studies.

CHAPTER II. BACKGROUND: THE CHARTER SCHOOL MOVEMENT

CHARTER SCHOOLS IN THE NATION AND IN CALIFORNIA¹

Charter schools are nonsectarian public schools of choice that operate with freedom from many of the regulations that apply to traditional public schools. The charter school movement has roots in a number of other school reforms; alternative schools, site-based management, privatization, and magnet schools. The term “charter” may have originated with the ideas of the education researcher Ray Budde: *Education by Charter: Restructuring School Districts*. The report, written for the Northeast’s regional lab, recommended allowing groups of teachers to enter into agreements with their school boards to operate alternative education programs. In the late 1980s, Philadelphia started schools-within-schools that were called “charters.” This idea was further refined when in 1991 Minnesota passed the first charter school law. Today, 40 states, the District of Columbia, and Puerto Rico have signed charter school legislation.

California became the second state in the country to enact charter school legislation, after Minnesota. California’s Charter Schools Act of 1992 allowed the creation of schools within the state’s public school system “that operate independently from the existing school district structure.” The intent of the law is specified in the Education Code (EC) 47601:

- Improve pupil learning.
- Increase learning opportunities for all pupils, with special emphasis on expanded learning experiences for pupils who are identified as academically low achieving.
- Encourage the use of different and innovative teaching methods.
- Create new professional opportunities for teachers, including the opportunity to be responsible for the learning program at the school site.
- Provide parents and pupils with expanded choices in the types of educational opportunities that are available within the public school system.

The advent and continued existence of charters is not without controversy. Opponents claim that charter schools will skim the best students, drain resources away from public schools and promote racial/ethnic segregation. Supporters assert that giving these schools autonomy will bring innovation and effective techniques that promote student learning and will foster competition between charters and traditional public schools, thereby improving the overall quality of education for all.

¹ Several sections in this chapter draw from a June 2004 EdSource report: *Charter Schools in California: An Experiment Coming of Age*.

CHARTER SCHOOL STATISTICS

Today, over one million students are enrolled in over 3,600 charter schools across the U.S. (see Exhibit 2.1 below).

Exhibit 2.1. Number of Charter Schools and Students, 2005-06 School Year

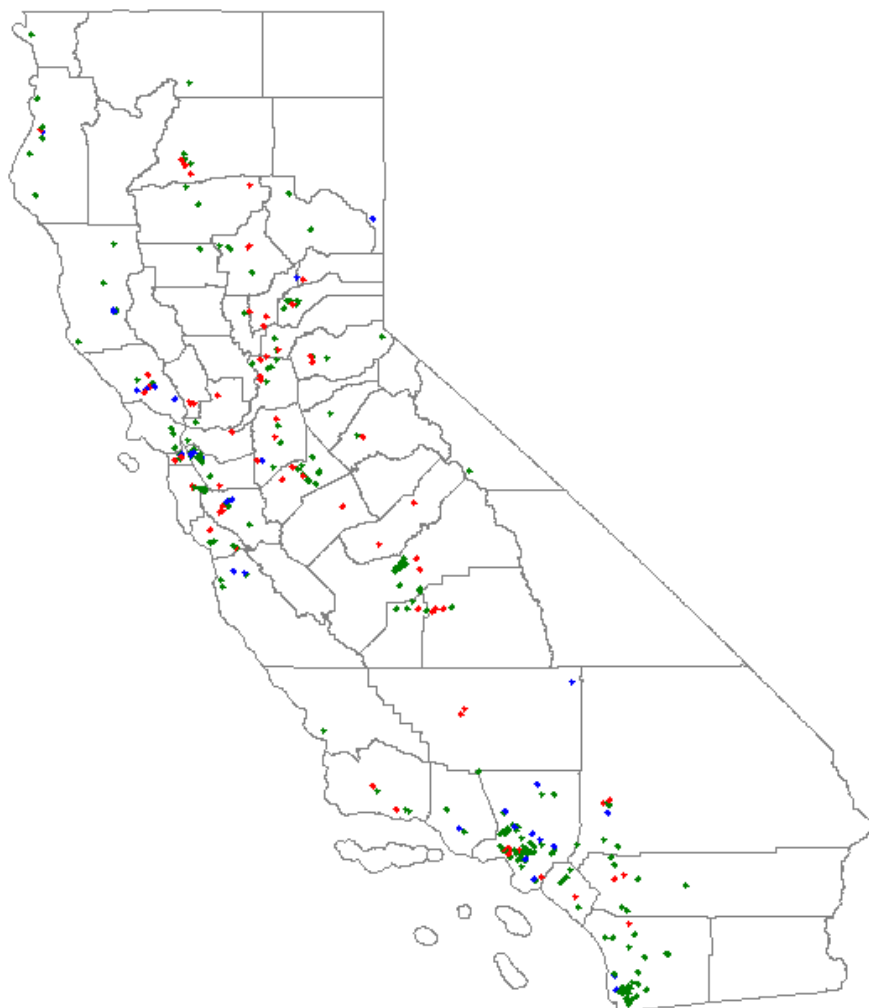
State	Schools	Students
Alaska	23	4,704
Arizona	466	83,092
Arkansas	17	3,724
California	574	212,000
Colorado	120	44,424
Connecticut	14	2,944
Delaware	13	6,904
Washington D.C.	63	17,819
Florida	333	92,158
Georgia	48	20,201
Hawaii	27	6,000
Idaho	24	8,209
Illinois	42	16,000
Indiana	28	7,000
Iowa	10	2,686
Kansas	26	1,966
Louisiana	30	12,700
Maryland	15	4,000
Massachusetts	57	21,000
Michigan	226	91,567
Minnesota	124	20,600
Mississippi	1	400
Missouri	23	11,000
Nevada	18	3,940
New Hampshire	6	500
New Jersey	53	14,723
New Mexico	52	8,500
New York	79	22,232
North Carolina	97	28,000
Ohio	297	72,000
Oklahoma	13	3,900
Oregon	65	7,581
Pennsylvania	117	54,500
Rhode Island	11	2,494
South Carolina	27	5,227
Tennessee	12	1,883
Texas	237	89,171
Utah	36	12,828
Virginia	3	215
Wisconsin	183	25,000
Wyoming	3	244
Total	3,613	1,040,536

Source: National Alliance for Public Schools, April 2006. (<http://www.publiccharters.org>)

As shown in Exhibit 2.1, California has more charter schools than any other state, and 20 percent of the students attending charter schools nationwide are in California. In California, 1 out of every 20 public schools is a charter, and 1 out of 50 students go to a charter school.

Exhibit 2.2 shows the distribution of charter schools around the state. Appendix 1 presents in more detailed the distribution of charter schools in Northern California, Central California, and Southern California.

Exhibit 2.2. Distribution of Charter Schools in California



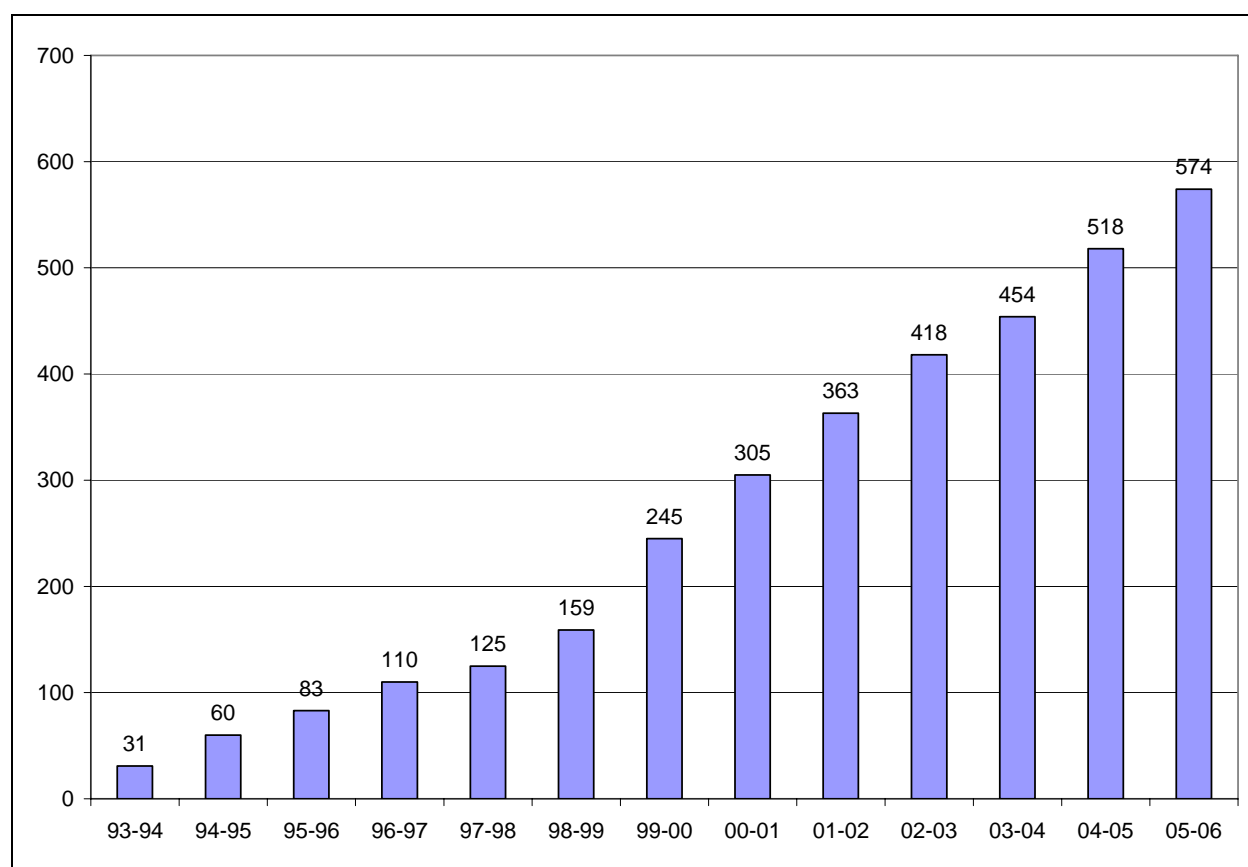
CALIFORNIA'S CHARTER SCHOOL RULES AND REGULATIONS

Charter schools in California are automatically waived from most state laws, regulations and policies governing school districts. Exemptions from particular district policies must be negotiated with the local district or chartering agency, and specified in the school's "charter." This charter agreement must explicitly describe how the school will address 16 specific elements, which include items such as any admission requirements and what procedures will be

undertaken if the school closes. Further discussion about the degree of freedom that charter schools have nationwide and in California, is presented in Chapter 3.

The original legislation of the Charter Schools Act limited the number of charter schools to 100, with no more than 10 per district. Later legislation (AB 544, in 1998) increased the statewide cap to 250 in 1998-99, with an additional 100 allowed every year after that, and eliminated the 10-per-district limit. The number of charter schools in the state has grown steadily since the original legislation (see Exhibit 2.3), from 85 schools in the 1993-94 school year to 574 in 2005-06. During that time, the number of state laws that address charter schools has increased significantly. More than 30 other laws have been passed. While these have focused on a broad range of charter school issues, the most frequent subjects are facilities and funding.

Exhibit 2.3. Number of Charter Schools in California



Source: EdSource report: How are California's charter schools performing? (2006). Figure 1, page 3. 2005-06 data comes from the National Alliance for Public Schools.

California legislation has also been clear about charter schools being explicitly public. They are required to be nonsectarian in all aspects, and cannot charge tuition or discriminate based on ethnicity, national origin, gender, religion, or disability. Like magnet schools, they are allowed to have admissions guidelines to facilitate a good fit between the student and the school based on the student's interest (e.g., performing arts). They are not allowed to base admission on where a student lives, except for schools converted from existing regular schools, which must give preference to students in the old school's attendance area.

TYPES OF CHARTER SCHOOLS

There are different types of charter schools in the state. Depending on the amount of instructional time students spent at the school site, charter schools can be considered classroom-based or non-classroom based. In addition, if a charter school was converted from an existing public school it is classified as a “conversion” charter school, and if it is created from the ground up it is considered a “start-up” charter school. Exhibit 2.4 below shows the total number of charter schools classified by whether they are classroom based and by conversion versus start-up status. Of the 573 charter schools in the state today, 85 percent are start-ups and the rest are conversion schools. Classroom-based charter schools are far more common than non-classroom based schools.

Exhibit 2.4. Number and Percentage of Classroom-Based, Non-Classroom Based and Conversion versus Start-Up Charter Schools, 2005-06

	Conversion	Start-Up	Total (%)
Classroom-Based	77	357	434 (76%)
Non-Classroom Based	8	95	103 (18%)
Both	0	36	36 (6%)
Total (%)	85 (15%)	488 (85%)	573

Source: California Department of Education, 2005.

Today, almost 20 percent of charter schools in the state are non-classroom based. These schools differ from traditional public schools in that they deliver instruction outside the classroom setting; they are defined as schools that do not require students to be on site under the direct supervision of a teacher for at least 80 percent of their instructional time.² Examples of these schools are distance learning or independent study schools. Non-classroom based charters tend to serve students that are different from students at other schools—students that are seeking more personalized instruction and/or instruction that is more aligned with their pace of learning. In addition, these schools use facilities and teachers in different ways than traditional schools and may have lower cost structures (Guarino, Zimmer, Krop, and Chau, 2005). Given this, non-classroom based charter schools were not included in our analysis of resource allocation practices (Chapter 4); however, they are part of the survey results presented in Chapter 3.

AUTHORIZATION OF CHARTER SCHOOLS

In California, a petition to start a charter school can be initiated by anyone. Priority in the approval process must be given to schools designed to serve low-achieving students. Once signatures are gathered, the petition is submitted to a chartering authority—most often a school district, but sometimes a county office of education or the State Board of Education. Charter

² The official regulations define classroom-based instruction as occurring when all of the following four conditions are met:

- 1) The charter school's pupils are engaged in education activities required of those pupils, and the pupils are under the immediate supervision and control of an employee of the charter school who is authorized to provide instruction.
- 2) At least 80 percent of the instructional time offered at the charter school is at the school site.
- 3) The charter's school site is a facility that is used principally for classroom instruction.
- 4) The charter school requires its pupils to be in attendance at the school site at least 80 percent of the instructional time required by the state.

If these conditions are not met, the charter school is considered non-classroom based. Source (<http://www.cde.ca.gov/sp/cs/as/nclbfdcovlet0607.asp>).

schools can be converted from existing public schools (“conversion” charter schools), or created from the ground up (“start-up” charter schools).

In 1998, AB 544 passed. This was the most significant California legislation affecting charter schools since they were first written into law. One of the biggest changes it brought was in the charter school approval process. As a response to district resistance in granting charters, this legislation required local school boards considering a new charter school’s petition to make approval the default decision. School boards are now expected to grant the requested charter unless the proposed educational program is unsound, the petitioners are demonstrably unlikely to implement the charter, or specific petition requirements are not met. If the district denies the charter, the petition now goes to the county board. If denied there, the decision can be appealed to the State Board of Education.

If and when a charter is approved, the approval is for a period of five years, and it must be renewed every five years thereafter. Once a charter is granted, it can be revoked for several reasons. However, if the issue is not an immediate or severe health or safety threat, the charter operator is given a chance to remedy the situation.

GOVERNANCE AND OVERSIGHT OF CHARTER SCHOOLS IN CALIFORNIA

The key to charter school oversight is designed to be school accountability. Charter schools were originally given significant flexibility with the understanding that this would be balanced by the need to meet measurable student outcomes. However, the original legislation was created before the state’s public schools were subjected to far-reaching accountability measures. Though charter schools were originally held more accountable than their non-charter counterparts, accountability has become a much more predominant focus for the entire public school system in the intervening years—and charter schools are now included in this standards-based system. A study by the state’s Bureau of State Audits in 2002 suggested that state’s overall accountability system may actually be stricter than the original charter school requirements. The study found that some charter schools were not following their charters regarding monitoring student outcomes, and that four districts studied were not holding the schools to which they had granted charters accountable.

Unlike public school districts, charter schools are not required to be under the oversight of a publicly elected governing board. They also are not required to have the elected school site council that is required for traditional public schools receiving funds from one of several categorical programs. The charter school’s petition must describe the school’s governance structure, but there are no specific guidelines that this body must follow. The original legislation simply requires that the schools consult regularly with parents and teachers about their educational programs. The 1998 legislation authorized charter schools to operate as, or be operated by, nonprofit corporations. This general lack of detail about charter school governance has led to a wide variety of oversight structures. More and more, existing charter school networks are taking the initiative to create new charter schools and then manage those schools within their existing structure and operating philosophy. These (mostly nonprofit) networks start as one successful charter school, whose approach is then duplicated for the additional schools. One network, the Knowledge is Power Program (KIPP), has 49 schools across the country and 9 in California.

The law allows districts authorizing charter schools to charge up to 1 percent of a school's revenues for the cost of providing oversight, or up to 3 percent if the district is providing a rent-free facility.

TECHNICAL ASSISTANCE

California is one of the 14 states and jurisdictions that do not provide technical assistance to charter schools. Of the 28 states that offer technical support to charters, seven provide the assistance only upon the school's request. For the majority (20), the assistance is from the state department of education or board of education. In addition, some states specify the type of assistance offered. For charters in some states, including Arizona, Arkansas, and Kansas, assistance is provided during the application process. In Arizona, technical assistance provided to school districts, which includes use of student data, staff development, and curriculum, is also extended to charters. Georgia charters are assisted regarding petition drafting and modification. The state of Maryland provides assistance to charter operators to ensure that they meet federal and state laws. Pennsylvania assists charters by conducting monthly regional workshops. Utah provides support regarding charters' establishment.

TEACHER CERTIFICATION

Although California law requires that charter school teachers be certified, in fact, this requirement can be waived. Similar requirements are in place for more than half (n=26) of the 42 states and jurisdictions with charters. Eight states require certification for teachers while granting provisions for exemptions. The typical exemption is an approved petition for a waiver by the charter school. More specifically delineated exemptions include those wanting to teach who are in the process of obtaining a teaching license (Indiana and Wisconsin), those who have successfully passed the state teacher test (Massachusetts), faculty at a university or a community college (Michigan), and part-time instructors working a maximum of 12 hours per week (Ohio).

In the rest of the states granting charters (n=16), not every teacher must be certified. Some, however, have established a ceiling regarding the total number of uncertified charter school teachers. For instance, Connecticut requires a charter school to have at least half of its teachers hold a standard certification. Illinois waives the teaching license in lieu of a bachelor's degree, five years of degree-related work experience, a passing score on the state teacher test, and "professional growth that can be substantiated". In Louisiana and New York, charter school teachers can be exempt from the certification requirement provided that they meet other prerequisites. In New Hampshire, three years of teaching experience can be used in place of the license requirement for charter school teachers.

TYPES OF STUDENTS SERVED IN CHARTER SCHOOLS

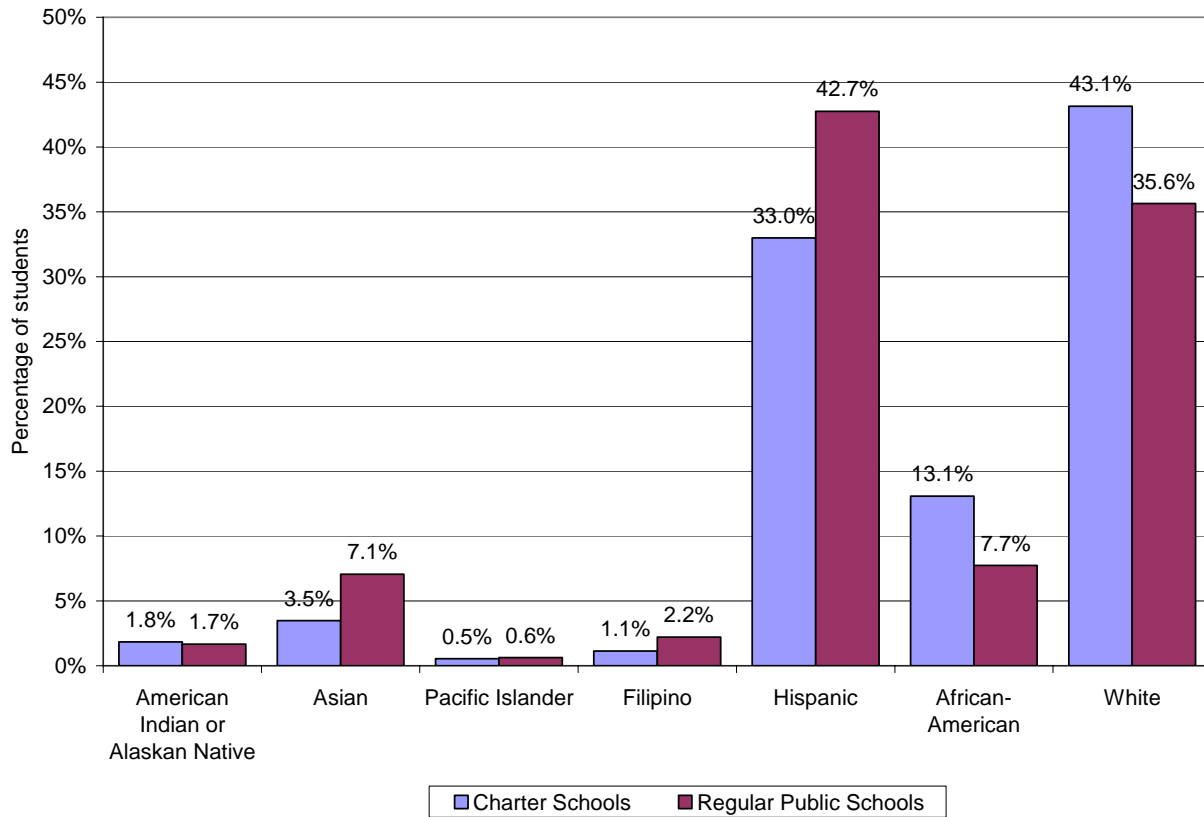
The type of students served in charter schools is a key policy concern. Proponents of school choice claim that charter schools provide a mechanism for students seeking a high-quality education, and that charters increase competition, which will eventually improve the quality of education for students who remain in traditional public schools. Critics worry that given that charter schools are schools of choice, they will "skim the cream," attracting and selecting high-performing students.

California charter school law stipulates the types of students that should be given preference in admission: (1) pupils residing in the area of a traditional public school that has been converted to a charter are granted preference; (2) if over-enrollment occurs, priority must be given to current charter students and to students living in the school district; (3) for charters located in the area of a public elementary school that has 50 percent or more of its students eligible for free or reduced price lunches, they may give admission preference to pupils in that public elementary school and to pupils who live within the elementary school attendance area.

Thirty-six states' charter school regulations specify admission preferences. Almost all (n=33) give enrollment specifications; 12 states discuss conditions for priority for approval; and 10 states—including California—elaborate on enrollment priority and preferences for approval. Many jurisdictions, including Arizona and California, mandate enrollment priority for charter students and for students residing within the attendance area. Some, such as Oregon and Missouri, include siblings and/or children of charter school employees as those prioritized for enrollment. A number of states (e.g., North Carolina) specify that the proportion of special population groups in the charter be the same as, or close to, that of the traditional public schools in the same area.

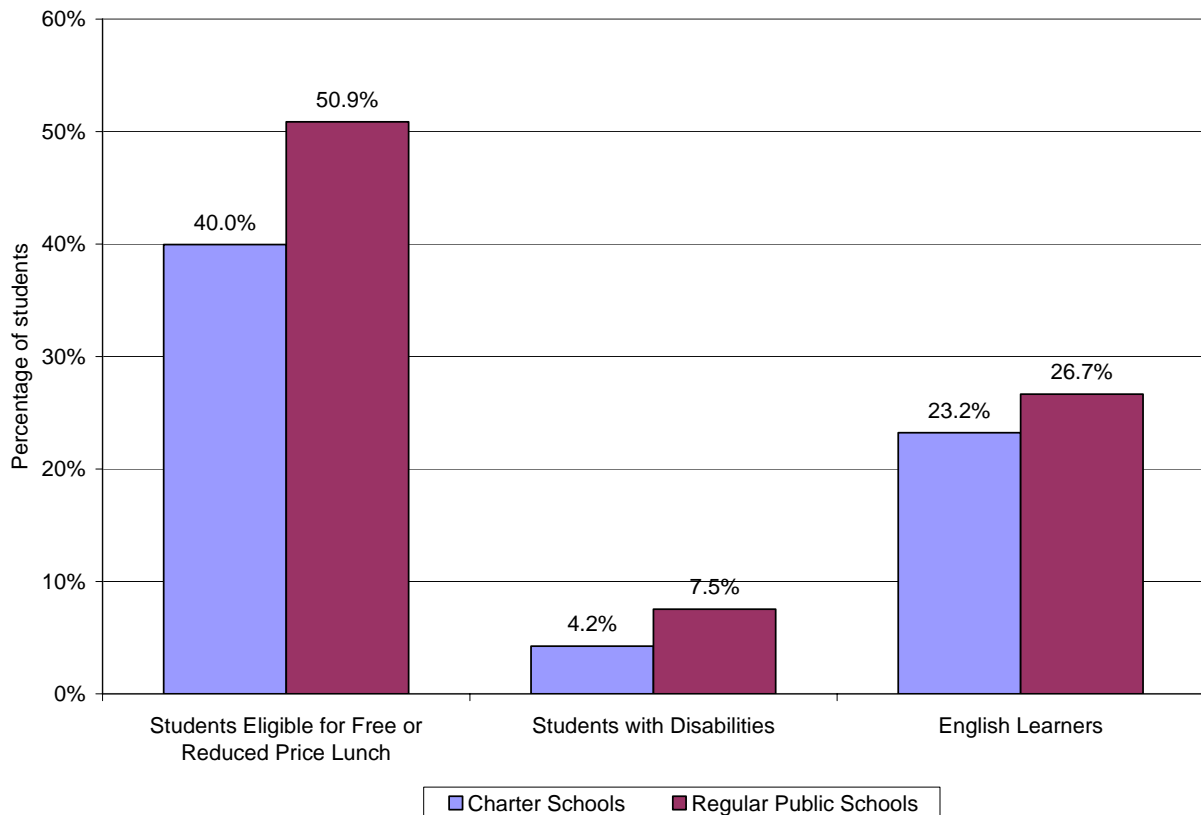
In California, an analysis of statewide data reveals that charter schools, on average, serve a lower percentage of Hispanic students than regular public schools, and a higher percentage of African-American and White students (Exhibit 2.5). They also serve a lower percentage of English learners, students eligible for free and reduced price lunch, and students in special education (Exhibit 2.6). In a more complex analysis, RAND (2003) compared the average racial makeup of charter students to conventional public school students, controlling for district heterogeneity, and found that charter school students are more likely to be African American and less likely to be Hispanic or Asian, but no more or less likely to be White.

Exhibit 2.5. Percentages of Students Served in Charter and Regular Public Schools, by Race/Ethnicity, 2004-05



Source: California Department of Education Data, 2004-05.

Exhibit 2.6. Percentages of Students Served in Charter and Regular Public Schools, by Student Characteristics, 2004-05



Source: California Department of Education Data, 2004-05.

ACADEMIC PERFORMANCE

Considerable attention has been given to charter school students’ academic performance. A study of Arizona charter schools by Solomon, Paark and Garcia (2001) found that students attending a charter school for more than one year had higher achievement than regular public schools’ students. Sass (2004) found that in Florida, holding the pre-existing quality of traditional public schools constant, competition from charter schools was associated with improved math and reading scores in nearby traditional public schools. Smith (2003) highlights two points for California’s charter schools: (1) the API scores of charter schools that have been around for five years or more exceed those of the average public school; and, (2) while the current average performance of California’s charter high schools remains slightly lower than that of conventional high schools, their average statewide API gains since 1999 have been more than double those of other public high schools. An Ed Source report (2006) notes that California’s elementary and middle school charters are more successful relative to non-charters in attaining the targeted API scores.

However, other studies have shown mixed results regarding charter school effectiveness. The American Federation of Teachers (2002) noted that students in charter schools usually score at the same level, sometimes worse, compared with their counterparts in public schools. Zimmer &

Buddin (2005) found that urban charters in Los Angeles and San Diego, were on par with traditional public schools. However, when they compared the academic performance of African Americans, Hispanics, and English learners in both school settings, they obtained mixed results: in some cases, these groups had higher achievement in charters, and in other cases they did better in regular public schools.

Many researchers have assessed the academic performance of charter students against that of students from regular public schools in various states using student-level longitudinal data. Overall, they have found that achievement is generally lower for students at new charter schools; and that as the charters mature, their students' academic performance is the same as or higher than for regular public schools. In Florida, Sass (2004) observed that when controlling for student-level fixed effects achievement was initially lower in charters, but that they caught up to the average traditional public school in reading and math by their fourth year. Hanushek, Kain and Rivkin (2002) and Booker et al. (2004) found similar results in Texas, although Hanushek et al. (2002) found that the bottom quartile of charter schools were generally of much lower quality than the lowest quartile of traditional public schools. Bifulco and Ladd (2004), using a methodology similar to Hanushek's for charter schools in North Carolina, found similar results. Unlike Hanushek and others though, they found that the negative impact of North Carolina charters on student achievement was statistically significant and quantitatively substantial even for schools in operation for five years.

CHARTER SCHOOL FUNDING

California's charter schools can choose to receive their funding directly from the state or through the district. Currently, about 61 percent of the charters receive their funds directly from the state (or are directly funded), and 35 percent receive their funds through the district (or are locally funded).³ If a charter is a conversion school, it is more likely to be locally funded; 63 percent of conversion charter schools are locally funded, compared to 32 percent of start-up schools.

Charters are intended to receive approximately the same amount of funding per student as other public schools, regardless if they are locally or directly funded. They can receive their funding through four funding sources:

- **General Purpose Funds:** Charter schools receive an amount of general purpose funds that is based on the average amount given to districts across the state. In 2005-06, the general purpose funds for charters was \$4,719 per pupil for grades K-3, \$4,787 for grades 4-6, \$4,926 for grades 7-8, and \$5,719 for grades 9-12.
- **Categorical Block Grant:** Instead of applying separately for certain categorical programs from the state, charter schools receive a categorical block grant that encompasses 44 categorical programs. Charter schools can spend this at their discretion—they are not bound by the specific requirements that school districts must follow for the categorical programs included in the block grant. In 2005-06, the categorical block grant was \$279 per pupil for

³ The two percentages do not add to 100 percent because there are 16 charter schools that, based on CDE information, are not part of the funding model, and there are 4 schools that have a mixed funding model.

grades K-12. For the 2006-07 fiscal year, the categorical block grant is expected to reach \$400 per pupil (Ed Code 47633-35).

- ***Economic Impact Aid (EIA):*** Charter schools receive \$115 per student who is eligible for free or reduced price lunch or who is an English learner (and \$230 per student for students who are both). These funds must be spent on services that benefit economically disadvantaged or English learner students.
- ***Other Categorical Funds:*** Charter schools can also apply separately to several state categorical programs and all federal categorical programs that are not included in the categorical block grant. For example, K-3 Class Size Reduction, Special Education, Transportation, and Title I through Title X of NCLB funds are not part of the block grant and require charters to apply separately. Charter schools that are directly funded need to apply on their own to these categorical programs. Locally funded charter schools can receive additional categorical funds if their LEA applies for them. Some charter schools end up receiving substantially less funding than other schools with comparable populations, in part due to complex application and reporting requirements for these categorical programs. Charter school administrators are sometimes unable to complete the forms and procedures that have taken districts years to master. In addition, charter schools may not have the economies of scale required to operate categorical programs on their own (RAND, 2003)

In 2002, RAND conducted a survey of all charter schools and a matched sample of traditional public schools. One of the questions focused on school participation in nine relatively large state and federal categorical aid programs outside the block grant.⁴ The results showed that charter schools tended to participate less in these programs when compared with similar traditional public schools. The results were statistically significant for all programs except the desegregation program. When the results were analyzed separately for start-up and conversion charters they found that start-up schools had statistically significant lower participation rates than similar traditional public schools for every categorical aid program. By contrast, conversion schools generally had participation rates that were the same as or higher than those of their traditional public school counterparts.

While an American Federation of Teachers study (2002) suggests that charters and traditional public schools generally receive similar funding, a number of researchers argue otherwise. The American Federation of Teachers study states that charter schools obtain funding commensurate with the demographics of the student populations they serve. Speakman and Hassel (2005), in their report on charter funding nationwide, conclude that charters are significantly underfunded relative to regular public schools and that this discrepancy is larger in most big urban school districts. Speakman and Hassel acknowledge that charter student characteristics account for some of the budget gap in a few states since regular schools typically serve more at-risk, English learner, and disadvantaged students, but they argue that in general the funding disparities are brought about by structural reasons—particularly state laws on charter funding that restrict access to local and capital funds. Nelson Smith (2003), reporting on California charter schools,

⁴ The categorical aid programs included were: K-3 Class Size Reduction, Pupil Transportation, Public School Accountability Act, Special Education Funding, Title I Funding, Staff Development Buyout Days, Child Nutrition Programs, Supplemental Instruction Program, and Desegregation Program.

identifies disproportionate funding—with charters receiving less relative to their non-charter counterparts—as one of the major challenges these schools face.

Starting with the 2003-04 fiscal year, charter schools are now required to submit annual financial data to the California Department of Education (CDE). Year-end financial reports are due to the charter school’s authorizing agency before September 15 every year. These are then forwarded to the charter school’s county office of education and CDE. Although the schools can choose one of two formats (complicating attempts to make comparisons and draw conclusions), having this information in the future will make analysis of charter school resource allocation decisions much more straightforward.

CHARTER SCHOOL FACILITIES

Charter schools in the state struggle to find available sources of facilities funding. This has proven to be one of the largest obstacles to starting a charter school. Conversion charter schools generally have their facility prior to converting; start-up schools usually have to acquire a facility and spend some portion of their operating budget on facilities leases or purchases. There are various recent laws and programs available to provide facilities funding and support charter schools. The major sources are summarized below:

- **Proposition 39:** Passed in November 2000, Proposition 39 took effect in November 2003. This proposition requires school districts to provide charter schools with “reasonably equivalent” facilities to those provided to students in the area where the charter school students reside. Considerations include school site size, interior and exterior condition, availability and condition of technology infrastructure, suitability of the facility as a learning environment, and the manner in which the facility is furnished and equipped. The facilities must include all the furnishings and equipment necessary to conduct classroom-based instruction. Schools receiving facilities under Proposition 39 generally must reapply each year.

To qualify for Proposition 39 facilities a charter school must be “operating in the school district,” which is defined as either (1) currently providing education to in-district students or (2) having identified 80 students who are interested in enrolling in the charter school for the following year.

The school district must make reasonable efforts to provide facilities near to the charter school’s desired location. Based on what we have learned in the field, and based on survey data, this requirement is not always met. Survey data results that were provided by EdSource⁵ show that 134 charter schools (out of 462 that answered that question) have exercised their right under Prop. 39 to request district facilities; and only 37 percent of these (49 schools) actually received a satisfactory facility. About 24 percent answered that the facility that was offered was “partially” satisfactory, and the 40 percent remaining were not offered a satisfactory facility. Among the reasons given by schools reporting that the facility was “partially” satisfactory include the burden of limited space and campus sharing, excessive

⁵ EdSource survey questionnaire can be downloaded at <http://www.edsource.org/pdf/EdSourceCharterSurvey.pdf>.

distance from the population served, and opinions that the facility is not a truly “reasonable equivalent.”

- **Senate Bill 740:** Senate Bill 740, passed in 2001, provides up to \$740 per average daily attendance to reimburse up to 75 percent of the school’s facilities rent and lease costs. To be eligible, Charter schools must be located in attendance areas of elementary schools in which at least 70 percent of the students enrolled qualify for free or reduced price lunch. Schools that are located in district facilities or that received their facilities through Proposition 39 are also not eligible.
- **Federal Per Pupil Facilities Aid:** California received a \$50 million from the federal government to provide grants of up to three years in length to charter schools to reimburse lease and facilities acquisition costs. This competitive grant program is targeted at schools that are nonprofit corporations serving high proportions of economically disadvantaged students and that are located in overcrowded districts.
- **Donations:** Even though not a common practice, some charter schools in the state have used donations from private individuals and foundations to fund their facilities (e.g., high tech high charter schools).

Across the nation, 69 percent (n=29) of the 42 states and jurisdictions with charters provide some form of facilities assistance to their charters, in the form of school district mandates, public notice of available buildings, loans, and grants. Two states leave the decision to provide facilities to charters at the school districts’ discretion. One is Illinois, where charters have to negotiate and establish a contract with a school district, a state college or university, or a private for-profit or nonprofit group to use a school building. The other is New Hampshire, where charters may lease buildings through the school district. Charter schools in 3 of the 13 states that do not provide facilities assistance—Nevada, New Jersey, and Texas—can acquire buildings for their use through contracts with local school boards, federal funds, or bonds from an approved bonding authority.

SPECIAL EDUCATION

Charter schools are exempted from many of the state’s governing rules affecting public schools, but they must conform to all federal laws and regulations regarding special education students. There are several issues related to serving this population that have been uncovered in previous research. A federally funded national study conducted by Fiore, Harwell, Blackorby, and Finnigan, (2000) found that enrollment of severely disabled students in charter schools is relatively rare, except in schools specifically designed for these students. They also found that most charter schools serve their special education students in “inclusion” programs rather than pullout settings, and that there is a lack of adequate funding to serve this population. However, the study also documented that students with disabilities receive more individualized attention at the charter school than they did at their previous school.

Rand (2003) found that the percentage of identified special education students was lower in charter schools than in comparison schools. Strong differences also existed in the identification of special education students between start-ups and conversion charter schools. They also

reported that funding for special education varied widely, and that a number of charter schools did not take advantage of categorical aid funding streams because of lack of information and capacity to study various options.

Another federal national study conducted by Ahearn et al. (2001) focused on the implementation of special education policy in the nation's public charter schools. The research involved 15 states (California included). In California they found that there are confusing relationships between charter schools, LEAs, and SELPAs due to a lack of clear guidelines. The study found that special education funding in California is very complicated and needs clarification, especially in the area of encroachment (a term used to describe the amount that charter schools pay to their LEA on a per student basis to cover statewide costs that exceed revenues).

FUNDING FOR SPECIAL EDUCATION SERVICES

Special education funding is excluded from the block grant that charter schools receive. California law requires that every school belong to a Special Education Local Plan Area (SELPA). SELPAs are the entities that receive special education funding and allocate these resources among their members (school districts). A charter school has three options in establishing its relationship with a SELPA: 1) the charter school may be its own separate district or local education agency (LEA); 2) the charter school may be one of the schools of a traditional district and operate as a conventional public school (as an "arm of the district"); and 3) charter schools that are LEAs for special education can form their own SELPA.

This legal identity of the charter school in regard to SELPAs not only determines the responsibilities it has for its special education students, but also has several legal, financial, and operational implications. Charter schools that are their own LEA must provide "verifiable, written assurances" that they will comply with all special education laws and that they will join a SELPA of their selection. Special education funds will flow to the SELPA, not the charter school. The SELPA also receives and distributes funds for charter schools that operate as an arm of a traditional district, and the district is responsible for all special education students receiving services. Based on EdSource survey data, about 78 percent of charter schools reported that they are an arm of the district for special education purposes.

The allocation of special education funds differs across SELPAs. Some SELPAs provide schools with a fixed amount of funding based on ADA. Other SELPAs allocate funding based on particular needs of the special education students they serve. These funds cover about 75 percent of special education costs. The charter school, in return, must "contribute an equitable share of its charter school block grant funding to support districtwide special education [costs]."

CHAPTER III. FREEDOM FROM GOVERNING RULES

INTRODUCTION

One of the main challenges in evaluating charter schools is that there is no single charter school model. They are designed to provide an “alternative” educational environment, which results in a wide range of models. Charter schools are often classified according to how they were created; “start-up” if they are new schools started from scratch, or “conversion” if they were traditional public schools that have been converted to a charter (see Rand, 2003; EdSource, 2006). Another dimension that is generally used to categorize charters is how “dependent” or “independent” they are regarding their chartering authority which is most often the local school district (see Rand, 2003).

Unfortunately, using statewide data, there is no easy way to determine how independent a charter school is from its local district and the district’s governing rules. A proxy for independence that has been used is how charter schools are funded: if they receive their funds directly (independent) or through their local district (dependent). However, as shown later in this report, these classifications often do not provide a good assessment of the level of freedom with which charter schools are operating.

This chapter describes the framework that was used to classify charter schools in our analysis. Our main objective was to be able to determine how much freedom charter schools have from traditional governing rules. This classification was then used to analyze if there was evidence of variation in the way schools with different levels of freedom allocate their resources, or in their models of instruction, the type of students they serve, or their level of academic performance.

DATA SOURCES

We analyzed the California charter law, as well as charter school policies across the nation. The primary data sources that were used for this analysis include a comprehensive database that is available at the Education Commission of the States (ECS) website. This information was complemented with results obtained from the School and Staffing Survey (SASS) sent to charter schools in the 1999-2000 school year⁶, as well as survey data about charter schools collected by EdSource in California.

The ECS database provides information about specific types of state policies for charter schools in each state or jurisdiction (40 states, the District of Columbia, and Puerto Rico). These policies include the types of rules that are waived for charter schools, the types of students or charter schools that have preference for approval, and requirements for teacher certification and teacher compensation.

The National Center for Education Statistics (NCES) administers the SASS survey system. These surveys emphasize teacher demand and shortage, teacher and administrator characteristics,

⁶ Surveys questionnaires can be downloaded at <http://nces.ed.gov/surveys/sass/questionnaire.asp>.

school programs, and general conditions in schools. In 1999-2000, all charter schools were included in the sample of public schools. Charter schools received a specially designed questionnaire, and a sample of principals and teachers working at charter schools were also surveyed.⁷

Survey data results provided by EdSource were also used to investigate the extent to which charter schools operate without traditional governing rules. This survey, sent to all California charter schools in the spring of 2005 included questions on topics such as the governance structure of the schools, the type of services received from their chartering agency, and how aligned charter school teacher bargaining agreements are with those of their chartering agencies.⁸

WHAT RULES ARE WAIVED FOR CHARTER SCHOOLS?

Charter schools in California are automatically exempted from the majority of state laws, regulations, and policies applicable to school districts. In addition, charters can obtain a waiver from specific district or local policies by negotiating with their chartering authority and specifying it in their charter document. The section of the education code that pertains to charter schools is vastly smaller than the sections that apply to regular public schools. California Education Code Section 47610 states that “A charter school shall comply with this part [47610] and all of the provisions set forth in its charter, but is otherwise exempt from the laws governing school districts” except for two other sections of code (47611 and 41365) and part of the California Building Code.

At the national level, the ECS data indicate that out of 42 states and jurisdictions with charter schools, 15 do not allow automatic exemptions to any regulation that governs traditional public schools, but instead require a waiver application or negotiation with the local school board to be exempted from particular laws. In addition, five allow automatic exemptions to only particular state laws, and also allow for a waiver application for exemption from additional district regulations. California is among the 22 states and jurisdictions that have automatic exemptions from most (but not all) state and district regulations. Among these 22 states and jurisdictions, 3 states (California included) allow for the application of waivers for additional exemptions from specific rules.

Of those states and jurisdictions that allow a waiver application process for certain state and local policies, 14 prevent charters from waiving regulations in the state charter law or in the specific charter’s contract, while 8 give specific constraints for what areas may be addressed by policy waivers. For instance, charters in Hawaii do not allow waiving the rules and regulations regarding collective bargaining, discriminatory practices, and health and safety requirements while charters in Idaho are expected to comply with teacher certification requirements. The non-waivable rules for charter schools in California include apportionment regulations, financial

⁷ A non-response bias analysis was conducted for each component of the National Center for Education Statistics (NCES) 1999-2000 Schools and Staffing Surveys (SASS). The results suggest that there is no evidence to point to a substantial bias due to nonresponse of school districts, principals, schools, or teachers.

⁸ In spring 2004-05, EdSource surveyed 544 charter schools that, according to CDE records, were either open or opening soon. EdSource was able to secure responses from 463 schools (a response rate of 85 percent). The EdSource survey questionnaire can be downloaded at <http://www.edsource.org/pdf/EdSourceCharterSurvey.pdf>.

management and control, K-3 class size reduction, school accountability, and school building requirements.

Another important measure of freedom is whether charter schools can set teacher salaries, or if these are determined by district practices and/or collective bargaining agreements. Nationally, 25 states grant charters the authority to set teacher salaries, while in another 10 states only collective bargaining agreements determine teacher wages. In addition, three states—Arkansas, Connecticut, and New York—have different provisions for who sets teacher salaries depending on the type of charter (e.g., conversion versus start-up charters). For instance, in Arkansas, the existing salary schedule determines teacher wages for conversion charters but the charters set the salaries for those teaching in start-up charters. In New York, the collective bargaining agreement establishes the wages for teachers for conversion charters, while start-up schools' wages are decided by the charters. In California (and Indiana and Ohio), charter school teacher salaries are set by the charter school, or the collective bargaining agreement if applicable.

In summary, California charter schools are exempted from most rules and can seek waivers for others. The question is to what degree California charter schools actually utilize these exemptions. Unfortunately, as more current data from SASS were not publicly available at the time of this report, we have had to rely on the universe of California schools in 1999-2000 (161 charter schools) that participated in the SASS survey. This survey included questions related to the type of waivers that charter schools have sought, and asked on a scale of 1 to 5 (with 1 being not important and 5 very important) how important they consider particular waivers for their operations. We have broken out the responses by start-up charter schools, conversion charter schools, and overall. The results are presented in Exhibit 3.1.

The exhibit shows that the most frequent waiver petition that charter schools seek is the one that gives them control over allocating their resources. As shown, more than half (52 percent) of the charters surveyed requested this type of waiver. Other popular waivers, for conversion and start-up charters alike, included waivers from curriculum requirements (47 percent), length of school day or year (42 percent), tenure requirements (41 percent), and hiring and firing policies (39 percent).

This exhibit shows where conversion and start-up charters seem to differ in terms of the rules and regulations they request to waive. The three cases in which their practices seem to differ the most are all related to how they handle teacher contracts. For instance, 42 percent of start-up charters asked for a waiver of the normal teacher contract year, while only 24 percent of conversion charters did so. Start-ups also more often asked for waivers regarding tenure requirements and incentives and rewards for teachers tied to the school's performance. Start-up charters appear to pursue more flexibility in how they compensate their teacher work force. This is also reflected in the higher frequency with which start-up charters requested waivers regarding hiring and firing policies (42 percent) in comparison with conversion charter schools (35 percent).

Exhibit 3.1. SASS 1999-2000 Survey Results: Waivers Requested by California Charter Schools

Focus of Waiver	Conversion Mean	Start-Up Mean	Overall Mean
Teacher certification requirements			
Percentage of schools that waived requirement	10%	23%	17%
Relative importance of wavier (1 = low to 5 = high)	4.6	4.43	4.47
Teacher/staff hiring/firing policies			
Percentage of schools that waived requirement	35%	42%	39%
Relative importance of wavier (1 = low to 5 = high)	4.39	4.54	4.48
The normal teacher contract year			
Percentage of schools that waived requirement	24%	42%	34%
Relative importance of wavier (1 = low to 5 = high)	4.33	4.42	4.39
Tenure requirements			
Percentage of schools that waived requirement	27%	52%	41%
Relative importance of wavier (1 = low to 5 = high)	4.21	4.16	4.17
Teacher salary/pay schedule			
Percentage of schools that waived requirement	27%	35%	32%
Relative importance of wavier (1 = low to 5 = high)	4.14	4.18	4.17
Curriculum requirements			
Percentage of schools that waived requirement	49%	45%	47%
Relative importance of wavier (1 = low to 5 = high)	4.44	4.46	4.45
Student attendance/seat time requirements			
Percentage of schools that waived requirement	29%	26%	27%
Relative importance of wavier (1 = low to 5 = high)	4.33	4.38	4.35
Student assessment criteria			
Percentage of schools that waived requirement	20%	29%	25%
Relative importance of wavier (1 = low to 5 = high)	4.5	4.11	4.25
Length of school day or year			
Percentage of schools that waived requirement	43%	42%	42%
Relative importance of wavier (1 = low to 5 = high)	4.14	4.19	4.17
Control of finances/budget/ability to allocate funds			
Percentage of schools that waived requirement	51%	53%	52%
Relative importance of wavier (1 = low to 5 = high)	4.88	4.85	4.86
Professional development requirements for teachers			
Percentage of schools that waived requirement	33%	35%	35%
Relative importance of wavier (1 = low to 5 = high)	4.41	3.68	4
Professional development requirements for administrators			
Percentage of schools that waived requirement	29%	34%	32%
Relative importance of wavier (1 = low to 5 = high)	4.07	3.38	3.67
Professional development requirements for instructional aides			
Percentage of schools that waived requirement	22%	31%	27%
Relative importance of wavier (1 = low to 5 = high)	3.64	3.42	3.5
Incentives, rewards, or sanctions due to school performance			
Percentage of schools that waived requirement	18%	34%	27%
Relative importance of wavier (1 = low to 5 = high)	4.22	3.95	4.03
Other			
Percentage of schools that waived requirement	18%	13%	15%
Relative importance of wavier (1 = low to 5 = high)	5	4.88	4.94

Another source of information that we used to analyze how dependent or independent these schools are from their chartering agencies is the EdSource survey from 2005. This survey explicitly asked about the type of services each charter receives from its agency. This level of support provided by the chartering agency also informs the degree of independence of charters, in the sense that more services would indicate a closer relationship and higher degree of dependence on the central office. Exhibit 3.2 presents these EdSource data.

Exhibit 3.2. Services Received from Chartering Agency

	Number of Charters	Percentage
Oversight only, no services	99	21.7%
Some services or assistance	167	36.5%
Several important services	191	41.8%
Total	457	100%

Source: EdSource survey data, 2005 (all charter schools).

As shown, about one-fifth of charters (21.7 percent) are very independent of their chartering agency, receiving no services at all. “Some” services or assistance were reported by 36.5 percent, while 41.8 percent stated that they received “several important services.”

A final indicator that we use to classify the degree of independence is the extent to which their bargaining agreements align with those of their chartering agencies. Exhibit 3.3 presents the responses to this question from the EdSource survey.

Exhibit 3.3. School Bargaining Agreement Alignment with the Chartering Agency Agreement

	Number of Charters	Percentage
No bargaining agreement	256	56.3%
Not at all	28	6.2%
Somewhat	21	4.6%
Almost	34	7.5%
Completely	105	23.1%
Don't know	11	2.4%
Total	455	100%

Source: EdSource survey data, 2005 (all charter schools).

These results show that there is large variation in the alignment of charters' bargaining agreements with those of their chartering agencies. The exhibit shows that 56.3 percent of charters do not have bargaining agreements at all, which implies that they do not have teacher unions. At the other end of the spectrum, 23.1 percent have bargaining agreements that align perfectly with their chartering agency's. About one-fifth (18.3 percent) of the charter schools fall in the middle between these two categories.

HOW WE CLASSIFIED CHARTER SCHOOLS

Based on these analyses and information we gathered from the field in our site visits, we decided that the best way to classify charter schools, in order to have a measure of the freedom they have from rules and regulations, was to combine information related to how they are funded,⁹ what types of services they receive from their chartering agency, and whether teachers have collective bargaining contracts.¹⁰ As mentioned in Chapter 2, non-classroom based charter schools are not included in our analysis of resource allocations; therefore, they are not classified by their degree of independence.



We classify classroom based charter schools as having a high level of independence if they receive funds directly from the state, if the charter granting agency only provides oversight and if teachers are not part of a collective bargaining agreement. On the other extreme, charters with a low level of independence are identified if they receive funds through their charter granting agency, if this agency provides several important services to the school, and if teachers have a bargaining agreement that is aligned with the chartering agency. Charters with a combination of the above criteria are classified as having a medium level of independence from the district. For example, charters receiving funds directly from the state, receiving only oversight support from their chartering agency but with a teacher bargaining agreement would be classified as schools with medium independence. Charters for which we do not have data across each of these three dimensions were classified as unknown. Exhibit 3.4 below summarizes these criteria.

⁹ Information on funding was obtained from CDE official information.

¹⁰ Information on the level of services and the collective bargaining status of charters was obtained from the survey data provided by EdSource.

Exhibit 3.4. How Classroom-Based Charters Were Classified in Our Analysis

Level of Independence	Funding		District Services			Teacher Bargaining Agreement?		Number of Schools
	Direct	Indirect	Oversight Only	Some Services & Assistance	Several Important Services	Yes	No	
High	✓		✓				✓	44
Medium	✓	✓	✓	✓	✓	✓	✓	192
Low		✓			✓	✓		72
Undefined			Missing Data					88
						TOTAL		396

 Required Combination
 Optional Combination

As Exhibit 3.4 shows, 396 classroom based charter schools were included in our analysis. The database that were used for the analysis (CBEDS 2004-05) include a total of 496 charter schools (including 94 non-classroom based schools). Once non-classroom based schools, schools with missing EdSource information, and schools without school type classification (i.e., elementary, middle, or high school) are excluded from the sample, there is a total of 396 charter schools to include in the analysis.

Last, it is important to highlight the high degree of correlation that exists between high independence and start-up status. Among the charter schools with a high degree of independence, 91 percent are start-up schools. Across the schools with a low degree of independence, only 61 percent are start-ups, and the rest are conversion schools.

CONCLUSION

Charter school analyses, and sometimes the debate around these schools, tend to focus on differences between charter and non charter public schools in the aggregate. However, as mentioned at the onset of this chapter, major challenges in evaluating charter schools emanate from the many different models found in the state and across the nation. The general intent of charter school legislation was to create a subset of schools that would be different from other public schools by virtue of the considerable freedoms granted them from existing education code, and other rules and regulations. The degree to which they take advantage of these freedoms, however, may considerably affect the type of charter school they turn out to be. To gain a more fine grained understanding of what is occurring in charter schools it seems important to conduct sub-analyses on such variables as the degree to which they are truly able to exercise the independence granted them by law. One attempt at creating a typology of independence that may help in this regard has been presented above. Based on these definitions, only about 11 percent (44 of 396) of the California charter schools included in the analyses for this report are

classified as being of high independence. This is a variable that we will draw upon further in subsequent chapters of this report.

CHAPTER IV. RESOURCE ALLOCATION ANALYSIS

INTRODUCTION

As described in the previous chapter, one of the challenges when conducting an analysis of charter schools is that there is no single charter school model. They have varying degrees of independence from traditional governing rules and instructional models, which may impact a number of factors, including how they allocate resources. As mentioned in Chapter 3, the analysis of charter schools concentrates only on classroom-based charter schools, leaving out the roughly 18 percent of charter schools that are non-classroom based. In addition, we use the classification system that was presented in the previous chapter to analyze how classroom-based charter schools with different degrees of independence vary in their level and characteristics of resources. We make comparisons across charter and traditional public schools, as well as within charter schools with varying degrees of independence.

The major objectives of this chapter are to determine if there are resource differences between charter and regular public schools, and between charters with varying degrees of independence.¹¹ We focus predominantly on the allocation of human resources, which are the most important in the provision of education.

This chapter is organized as follows:

Section I: Data and Methodologies: In addition to presenting a brief literature review surrounding the issues of resource allocation, we present the data and methodologies for the analysis.

Section II: Results: The first analysis is a descriptive summary of the demographics, student achievement levels, and quantities and characteristics of personnel resources in charter schools. Then, a regression analysis is subsequently used to analyze differences in personnel resources among charter schools while controlling for student characteristics. The second analysis develops and estimates a resource allocation model, treating resource allocation as an optimization problem. This theoretical model addresses two questions. The first is how much of the achievement gap that exists between charter schools and traditional public schools (and between charter schools with varying degrees of independence) is due to differences in their resources and student characteristics. The second question is whether charter or traditional public schools appear more efficient in the allocation of resources.

¹¹ A similar theoretical framework and methodological approach was also used for a study of successful schools conducted by AIR that is also part of the “Getting Down to Facts” project.

SECTION I: DATA AND METHODOLOGIES

This section presents a brief literature review around resource allocation analysis and production functions. It then presents the data and methodologies used for the analysis.

LITERATURE REVIEW

The literature on resource allocation in traditional public schools is fairly limited, and the body of research on charter schools has concentrated on evaluating their academic performance rather than level of resources. This is because researchers cannot agree on a more fundamental issue: the relevance of resources in determining student academic achievement. If the link between resources (or inputs) and education outcomes is not clear, it makes little sense to go one step further and consider the optimum use of resources such that academic achievement is maximized given a certain budgetary constraint. Research studying this broader question of the impact of education inputs on outputs is referred to as education production function research. The literature in this area is extensive, and often not in agreement.

Examples of the production function literature are found in Burtless et al. (1996), Hanushek (1986, 1997), Krueger (1999), and Angrist and Lavy (2001). One of the most cited education production function studies is Eric Hanushek's (1997) meta-analysis that summarizes the findings of 277 studies of the effects of the teacher-pupil ratio on academic achievement in traditional public schools, and of 163 studies of the effects of expenditure per pupils on the same outcome measure. The analysis found that 72 percent of the 277 teacher-pupil ratio studies show no statistically significant effect, while an additional 13 percent indicate a negative effect on achievement. Sixty-six percent of the 163 studies analyzing the effect of expenditures on student achievement do not show a statistically significant effect, while an additional 7 percent indicate a negative relationship with student academic achievement. Similar results were found for teacher test scores (as a proxy of teacher quality), administrative inputs, and facilities. None of these studies have analyzed charter schools in particular.

Of those studies that have tried to address the education resource allocation question, Lawton (1973) focuses on the distribution of instructional resources in Detroit. He identifies teacher experience, teacher academic training, and class size as relevant in the production of education. The first two can be interpreted as a proxy for teacher quality, while class size is associated with the intensity at which a given teacher quality is applied to a group of students. His study indicates that instructional resources were not distributed evenly across schools in Detroit at the beginning of the 1970s. African-American students were taught, on average, by less-experienced and less-educated teachers than white students, but had smaller class sizes. Lawton's analysis showed that the expenditures required for smaller class sizes more than offset the teacher quality issue, generating a positive correlation between the percentage of African-American students at the school and average instructional expenditure per student in elementary schools.

A second resource allocation analysis is one performed by Margaret Simms (1977) in the 36 traditional elementary schools in San Jose Unified School District. In this study, the main research question was how per pupil expenditure in teacher salaries varied by percentage of Spanish speaking students and total enrollment at the school. She found that teacher salary expenditures did not vary significantly with the percentage of Spanish speaking students, but that

school enrollment was consistently correlated with this variable. Small schools had, on average, higher per pupil teacher salary expenditures than larger ones. The author linked this relationship to class size, given that smaller schools also had smaller class sizes, which increased per pupil expenditures. This study also analyzed the distribution of teaching experience and teacher education across schools with different percentages of minority students. The study found a negative correlation between the percentage of minority students and teacher experience and education. As the author states, “The pattern of teacher location was a combination of teacher preferences and district policy. Tenured teachers could request transfers out of “undesirable” schools into other ones. The pattern of transfer had been away from high-minority schools.” This finding is important when analyzing the extent to which charter schools have tenured teachers, and how that impacts the distribution of teacher experience and education among charter schools.

A third study, by Karen Hawley Miles and Linda Darling-Hammond (1998), analyzed important resource allocation changes introduced in five schools that had shown improvement in student achievement despite serving challenging student populations. The authors attribute these results to the following resource allocation practices:

- Reduction of specialized programs. “Pull-out” programs are costly and segregate students. Resources used in these types of programs should be brought back into the regular classroom and benefit all students.
- More flexible student grouping. Students benefit from multi-age grouping practices, in which they stay together for long periods of time. This promotes peer-to-peer learning.
- Structures that create more personalized environments. This may take the form of individual tutoring in reading or math, or teachers that serve as advisors to individual students or groups of students over long periods of time.
- Longer and varied blocks of instructional time. This policy is mainly targeted to high schools, in which students spend considerable amounts of time moving from one classroom to the next, for what the authors consider relatively small blocks of instructional time. The proposed solution would involve reducing the number of classes by increasing the length of blocks of instruction.
- More common planning time for staff. This allows teachers to learn from each other, sharing their instructional practices and fostering a collaborative working environment.
- Creative definition of staff roles. In order to reduce the amount of resources spent on administrative staff, and concentrate them on teachers, it is necessary that teachers expand their roles in schools. Teachers, for instance, may also act as advisors to a certain number of students each year, avoiding hiring guidance counselors or other administrative staff.

A study by Betts, Rueben and Danenberg (2000) analyzed the distribution of school resources (measured by CBEDS data from 1999), and how that distribution is related to student academic achievement in California. The authors concluded that schools with the highest needs had fewer

teaching resources, as measured by teacher education, experience, and credentials, and the availability of advanced placement courses. The authors also found that the differences in socioeconomic backgrounds explained most of the achievement gap.

DATA SOURCES

To conduct an analysis of resource levels and characteristics of charter schools, we built a comprehensive school-level personnel database that provides the quantities and characteristics of traditional and charter public schools.

The California Based Educational Data System (CBEDS) for 2004-05 was the main data source. From the Personnel Assignment Information Form (PAIF),¹² we obtained information on certified personnel for all schools and districts in California. This information was aggregated to the school and district level across three broad personnel categories: administrators, teachers, and pupil support staff. These personnel categories are aligned with administrative employees, teachers, and pupil services employees as defined in Education Code 41401 and referenced in the *Administrative Manual for CBEDS Coordinators and School Principals, October 2005*.¹³

Although district-level employees are reported in PAIF, there is no way to map precisely how districts allocate these staff to specific schools within the district. This is a very important limitation for the analysis of charter schools, given that charter schools with varying degrees of independence receive different levels of services from the districts. In the extreme, totally independent charter schools only receive oversight from the district, whereas a traditional public school receives administrative support, pupil support, and other important services from their local district. We tried to capture these differences in the analysis, but given the limitations of the CBEDS data it was not possible to confidently match district resource to individual schools. However, overall district-level personnel information is shown in the analysis. We also make an attempt to illustrate the difference between total administrative resources allocated to regular public schools, which include school and district staff, in relation to a fully independent charter school where virtually all administrative support services are provided by staff on site.

This database also captures more detailed assignment categories (nested within the administrator, teacher and pupil support categories), and aligns them with the subject code groupings in CBEDS. Quantities of personnel within each assignment category are reported in PAIF in terms of full time equivalents (FTEs). PAIF also provides information on personnel characteristics, such as gender, experience in education, highest degree level obtained, teaching status, and whether or not fully credentialed.

Using the CBEDS School Information Form (SIF)¹⁴ for 2004-05, we obtained information on the numbers of part-time and full-time classified staff at each school.¹⁵ As SIF data are not collected

¹² PAIF files downloaded from: <http://www.cde.ca.gov/ds/ss/cb/filespaif.asp>.

¹³ Please refer to Appendix 2 for a more detailed description of the staff that are included in PAIF as well as a more detailed description of the specific personnel assignments that are included within each personnel category.

¹⁴ SIF Sections A, D and E downloaded from: <http://dq.cde.ca.gov/DataQuest/downloads/sifade.asp>.

¹⁵ A classified employee is an employee of a school district in a position not requiring certification. The numbers of classified staff do not include preschool, adult education, or Regional Occupation Program classified employees.

in a manner that allows FTE reporting, in our analyses we assume part time status as 0.5 FTE and full time status as 1 FTE. Information on experience and education is not available for classified staff. School level characteristics, such as school type, grade span, and enrollment were obtained from the Public Schools database.¹⁶

The Standardized Account Code Structure (SACS) and the Charter School Alternative Form Database for 2004-05 provide annual revenue and expenditure figures for all school districts in California, as well as for charter schools that reported their financial data independently from their districts. Expenditures are disaggregated into certified salaries, non-certified salaries, employee benefits, books and supplies, services and other operating expenses, capital outlay, and other expenditures. Teachers' salaries are a subcategory within certified salaries.

We also included eight measures of academic achievement for the 2004-05 school year: the Academic Performance Index (API) Growth and Base score, the percentage of students proficient or above in English language arts (ELA) and Math, school-level California Standard Tests in ELA and Math, and tenth grade California High School Exit Exam (CAHSEE) passing rates in ELA and Math.¹⁷ Student-level test scores are not publicly available; therefore available grade-level test scores for each school were used to measure how California schools are performing in 2004-05. The California Standard Tests are available at an aggregate level for all students in grade 2 to 11 that took the test. Using grade-level scaled score results, a school-level measure was calculated by standardizing grade-level results.

Using all of these data sources, we constructed a comprehensive database that includes:

- Total certified and classified personnel at the school and district level
- Characteristics of the personnel (e.g., education level, number of years of experience, tenure status)
- Class sizes and caseload
- Total salaries for different personnel staff
- Expenditures for different categories (e.g., books and supplies, capital outlay, and other expenditures)
- Measures of student academic achievement at the school level

THEORETICAL FRAMEWORK

This section presents the theoretical framework developed to analyze resource allocation differences between charter and traditional public schools, as well as within charter schools with varying degrees of independence. This model is a simplification of the context in which public schools operate—it leaves out complex and relevant factors including teacher unions, long-term labor contracts, the role of the district, and parental involvement (though some of these features,

¹⁶ Public Schools database downloaded from: <http://www.cde.ca.gov/ds/si/ds/pubschls.asp>.

¹⁷ API database downloaded from: <http://www.cde.ca.gov/ta/ac/ap/apidatafiles.asp>; AYP database downloaded from: <http://www.cde.ca.gov/ta/ac/ay/aypdatafiles.asp>; STAR database with CST test scores downloaded from: <http://star.cde.ca.gov/star2005/viewreport.asp?rf=True&ps=True>.

such as unions, are not found in some charter schools, especially those with the highest degrees of independence). Even though this model is not a perfect reflection of reality, we see this as a relevant exercise that can help illuminate how different charter schools allocate their resources, and if there are differences in efficiency between charter and traditional public schools.

The model is specified as follows. An educational institution that operates in a competitive environment has the following objective function:

$$Max L \equiv \bar{Y} enr \tag{1}$$

Where \bar{Y} is an outcome measure of average school-level student academic achievement. The variable enr represents the enrollment at the school. The production function of the outcome measure of average student academic achievement is given by the following formula:

$$\bar{Y} = A \overline{edu}^\alpha \overline{exp}^\beta \left(\frac{tea}{enr}\right)^\gamma (\overline{pov})^\delta (\overline{els})^\eta \tag{2}$$

Where \overline{edu} and \overline{exp} represent the average years of education and teaching experience of the teachers at the school, respectively, and tea indicates the total number of teachers working at the school. The terms \overline{pov} and \overline{els} represent the average poverty level and percent English learners at the school, respectively. $\alpha, \beta, \gamma, \delta, \eta$ and A are parameters. This academic production function states that average student achievement depends on teacher and student characteristics, as well as class size.

Replacing Equation (2) in Equation (1), we get the following objective function:

$$Max L \equiv A \overline{edu}^\alpha \overline{exp}^\beta \left(\frac{tea}{enr}\right)^\gamma \overline{pov}^\delta \overline{els}^\eta enr \tag{3}$$

The school faces several constraints in this optimization process. These constraints are given by the following equations:

$$Total\ Costs = C + H enr + \bar{W} tea \tag{4}$$

$$\bar{W} = \theta_0 + \theta_1 \overline{edu} + \theta_2 \overline{exp} + \theta_3 rwi + \varepsilon \tag{5}$$

Equation (4) defines the cost structure of the school. C represents fixed costs (e.g., facility costs). The school also faces variable costs that depend on student enrollment. H may be associated, for instance, with costs related to special education services that the school faces per student enrolled. Finally, we also need to consider labor costs. These are equal to the product of the average annual salary (\bar{W}) times the number of teachers working at the school (tea).

Equation (5) states that the average annual cost of labor depends on the characteristics of the teachers hired by the school. We expect θ_1 and θ_2 to be positive parameters. The term rwi represents a relative wage index that takes geographical as well as urban vs. rural wage differences into account. This index is based on the average teacher salary (for a given level of education and experience) in 30 different California regions.¹⁸ We then divided the average teacher salary of each region by the Los Angeles Unified School District (LAUSD) average teacher salary (i.e., this region was used as the base—the rwi is 1 for LAUSD).

SECTION II: RESULTS

SECTION II-A: DESCRIPTIVE AND STATISTICAL ANALYSIS OF PERSONNEL RESOURCES IN CHARTER SCHOOLS

Using the comprehensive school-level personnel database we explore how personnel resources differ between charter schools and regular public schools, as well as among charter schools with varying degrees of independence. The first part of this section presents a descriptive analysis of personnel levels and characteristics among these schools. The second part presents the same analysis, this time controlling by demographic characteristics.

Descriptive Analysis of Personnel Resources

Describing personnel with CBEDS data allows us to address the question of whether or not charter schools are staffed differently in an absolute sense (i.e. in terms of the numbers and characteristics of their employees) in comparison to other public schools. We also specified a series of variables describing resource ratios. Examples of these variables are the teacher experience-to-education level ratio, and the pupil support staff-to-teacher ratio. In some cases these variables were defined to broadly approximate dimensions of school organization, such as the pupil support staff-to-teacher ratio and the general level of support available to principals in the form of a vice principal and clerk-to-principal ratio. In other cases, the variables simply describe the distribution of staff across assignments (e.g., percentage of teachers assigned to core subjects versus electives), by levels of seniority, and by credentialing status. We recognize that the interpretation of some of these ratios may not be straightforward; however they are presented to help understand the results of the efficiency analysis presented at the end of this chapter.

Exhibit 4.2.1 below provides a broad range of measures including student demographics, achievement outcomes, and personnel resources. These descriptive analyses include comparisons between all charter schools, all regular public schools and the three charter classifications described in Chapter 3: charters with a high, medium, and low degree of independence from the rules and regulations that govern most regular public schools (charter schools with an unknown degree of independence are also included in the analysis).¹⁹ As these are descriptive measures, they largely speak for themselves, with more extensive consideration of how they might be contrasted and compared through more standardized analyses following later in this chapter.

¹⁸ The average teacher salaries for the 30 regions were obtained from the work of Heather Rose.

¹⁹ Although we tend to refer to all schools in this discussion, in fact, this analysis excludes non-classroom based charter schools, as well as some non-charter schools, such as alternative, continuation, special education, state special, juvenile hall, community day and adult education schools.

Immediately following this exhibit, however, is a limited discussion of some of the more salient contrasts.

Exhibit 4.2.1. School Demographic, Achievement and Personnel Resource Profile

Category	Var #	Variable Description	Regular Public Schools	All Charter Schools	Within Charters: Level of Independence:				
					High	Medium	Low	Unknown	
Demographics (2005)	1	Number of observations	7,526	396	44	192	72	88	
	2	Average school size	787	335	277	345	333	341	
	3	Percent poverty	51.4%	44.0%	39.3%	44.1%	41.1%	48.7%	
	4	Percent English Learners	25.6%	19.4%	16.6%	20.1%	18.9%	19.8%	
	5	Percent African-American	7.4%	15.1%	21.3%	12.8%	7.3%	23.5%	
	6	Percent Hispanic	43.6%	37.0%	32.8%	37.5%	36.0%	38.7%	
Student Achievement (2005)	7	API growth score	724	697	708	704	702	667	
	8	API growth	7	15	10	18	13	9	
	9	Percent proficient ELA	44.4%	43.2%	43.8%	44.0%	45.6%	39.6%	
	10	Percent proficient math	49.5%	39.8%	37.8%	40.4%	45.1%	35.4%	
	11	CST schoolwide z-score ELA	0.08	0.03	0.10	0.05	0.06	-0.11	
	12	CST schoolwide z-score math	0.06	-0.10	-0.25	0.00	0.05	-0.38	
	13	10th grade CAHSEE passing rate ELA	76.1%	64.0%	70.8%	67.1%	63.0%	53.6%	
	14	10th grade CAHSEE passing rate math	74.6%	54.1%	58.6%	57.1%	54.3%	44.7%	
Resource Levels	Staff per pupil	15	Certified staff per 100 pupils	5.53	5.79	5.85	5.80	5.88	5.67
		16	Teachers per 100 pupils	5.06	5.09	5.02	5.08	5.34	4.97
		17	Administrators per 100 pupils	0.29	0.59	0.72	0.61	0.42	0.62
		18	Pupil support staff per 100 pupils	0.18	0.11	0.11	0.12	0.12	0.07
		19	Classified staff per 100 pupils	2.68	3.02	3.80	2.98	2.05	3.51
		20	Paraprofessionals per 100 pupils	1.14	1.07	1.63	0.95	0.69	1.38
		21	Clerical office staff per 100 pupils	0.52	0.92	1.00	0.91	0.77	1.02
	Education & experience	22	Other classified staff per 100 pupils	1.02	1.03	1.18	1.11	0.59	1.11
		23	Teachers: average total years of education ^(a)	17.27	17.03	16.95	17.03	16.97	17.11
		24	Teachers: percent with bachelors degree or less	69.4%	71.0%	67.3%	71.1%	76.3%	68.7%
		25	Teachers: percent with master's or doctorate	30.6%	28.9%	32.2%	28.9%	23.7%	31.3%
		26	Teachers: average total years of experience in education	12.88	7.38	6.65	6.92	9.52	6.95
		27	Teachers: average total years of experience in district	10.63	4.23	2.92	3.65	6.49	4.30
		28	Administrators: average total years of education ^(a)	18.30	17.86	18.03	17.67	18.09	18.00
29	Administrators: percent with bachelors degree or less	17.3%	34.0%	28.5%	37.0%	29.2%	33.8%		
30	Administrators: percent with master's or doctorate	82.7%	66.0%	71.5%	63.0%	70.8%	66.2%		
31	Administrators: average total years of exp. in education	19.77	14.52	13.80	14.06	16.45	14.46		

Category	Var #	Variable Description	Regular Public Schools	All Charter Schools	Within Charters: Level of Independence:			
					High	Medium	Low	Unknown
	32	Administrators: average total years of experience in district	13.51	6.64	4.94	5.65	10.09	6.78
Class sizes	33	Average class size: kindergarten self contained classrooms	21.5	21.0	21.8	22.2	20.7	19.0
	34	Average class size: grades 1 - 3 self contained classrooms	20.1	20.3	20.1	19.9	19.7	21.5
	35	Average class size: grades 4 - 5 self contained classrooms	30.4	26.4	26.2	26.6	26.3	26.0
	36	Average case load: core subjects	91.2	94.6	101.5	93.3	95.7	91.8
	37	Average case load: electives	198.1	147.6	141.5	143.5	166.5	148.7
Experience: education	38	Teachers: total years of experience per total years of education	0.74	0.43	0.39	0.41	0.56	0.41
	39	Administrators: total years of experience per total years of education	1.08	0.81	0.77	0.79	0.91	0.80
Distribution of staff by assignment	40	Share of total staff who are teachers	91.9%	88.6%	86.3%	88.4%	90.6%	88.6%
	41	Share of total staff who are administrators	5.1%	9.6%	12.1%	9.8%	7.3%	10.1%
	42	Share of total staff who are pupil support staff	3.0%	1.8%	1.6%	1.9%	2.1%	1.3%
Support capacity	43	Teachers per administrator	20.6	12.2	10.2	11.0	19.3	9.9
	44	Teachers per pupil support staff	25.7	25.7	28.8	23.7	26.3	29.7
	45	Administrators per pupil support staff	1.3	2.4	3.7	2.0	2.1	3.4
	46	Paraprofessionals per teachers	0.2	0.2	0.4	0.2	0.1	0.3
	47	Share of teaching staff providing mentoring support	1.2%	0.9%	0.4%	1.1%	1.0%	0.8%
	48	Share of teaching staff providing instructional support	2.0%	1.2%	0.9%	1.3%	1.8%	0.7%
	49	Administrators + clerical office staff per principal	4.98	3.93	3.71	4.30	3.11	3.90
Instructional emphasis	50	Share of total teachers who teach core subjects ^(b)	0.21	0.34	0.52	0.34	0.24	0.32
	51	Share of total teachers who teach elective subjects ^(c)	0.06	0.09	0.10	0.10	0.07	0.06
	52	Elective teachers per core teachers	0.19	0.28	0.20	0.33	0.30	0.19
Teacher status & credentials	53	Share of total teachers designated as probationary or temporary	22.0%	34.8%	24.1%	35.0%	39.8%	35.1%
	54	Share of total teachers with tenure	69.0%	22.4%	7.5%	19.2%	38.7%	23.7%
	55	Share of total teachers with full credentials	95.2%	76.4%	64.8%	76.4%	87.5%	73.4%

Source: CBEDS 2004-05:

(a) As CBEDS only includes the discrete education attainment level of staff, we create a continuous education variable in the following way:

- Less than bachelor's degree: 12 years of education.
- Bachelor's degree: 16 years of education.
- Bachelor's degree plus 30 or more semester hours: 17 years of education.
- Master's degree: 18 years of education.
- Master's degree plus 30 or more semester hours: 19 years of education.
- Doctorate: 21 years of education.

(b) Core subjects include: Mathematics, English, History and Social Science.

(c) Elective subjects include: Humanities, Arts, Music, Physical Education, Computer Education and Foreign Language

Demographics

The average charter school is approximately half the size (335 vs. 787 students) of the average regular public school. On average, charters serve a lower percentage of students in poverty (44.0 vs. 51.4 percent) and English learners (19.4 vs. 25.6 percent). Note that we are using eligibility for free or reduced price lunch as a proxy for poverty.²⁰ In addition, charters are more likely to enroll African-American students and less likely to enroll Hispanics.

Within charter schools, differences in demographics are less pronounced. However, it is worth noting that schools with a relatively high level of independence from their districts tend to be smaller and serve a notably higher percentage of African-American students in comparison to charters with a low level of independence. They also have fewer students in poverty and fewer ELs.

Student Achievement

In 2004-05, regular schools outperformed charters in terms of their average Academic Performance Index score, although the average gain over the prior year was somewhat greater for charters. While the percentage of students scoring proficient or above in ELA is comparable between charters and regular public schools, charter students perform at a noticeably lower level in math. This indication of a relative math deficiency in charters is corroborated by the fact that only 54.1 percent of their students passed the CAHSEE in math, as compared to 74.6 percent of students in regular public schools.

Within charter schools, there are some observations worth noting. The math performance gap in the CST previously mentioned appears to exist mostly among charters with a high level of independence.

While acknowledging the limitations of using cross sectional data, these observations corroborate the findings of prior studies on charter school performance. On average, it seems that charter schools do not perform at the same achievement level as regular public schools. It is also important to note that substantial variation in performance exists between charters with varying degrees of independence. Although a more sophisticated analysis of achievement within charter schools is beyond the scope of this study, there appears to be enough variation to warrant a more in depth look at how the relative degree of charter school independence is related to academic performance.

Staff per Pupil

Charter and regular public schools have approximately the same ratio of teachers per 100 pupils and their teachers have comparable education levels.

²⁰ Zimmer et al. (2003) argue that some charters do not participate in this program due to size and start-up status. As a result, the poverty levels here may be underestimated. However, an analysis of all the schools that have no students eligible for free or reduced price lunch revealed that charters and traditional public schools in this group do not differ significantly. In other words, charter schools and traditional public schools with zero poverty have a similar percentage of English learners (12 percent), of Hispanic students (24 percent), and white students (51 percent for charters and 54 percent for traditional schools). Given these results the research team used throughout this report participation in free and reduced price program as a proxy to measure poverty in all public schools in the state.

With 0.59 school-level administrators per 100 pupils, on average charter schools have more administrators compared to regular public schools, at 0.29. Keep in mind, however, that for independent charters virtually all the administrative staff they have will be found at the school level, while other public schools and charters with low levels of independence also receive considerable levels of administrative and support from district-level staff.

Including the average count of district level administrators per 100 pupils (not shown in this table) adds another 0.38 FTE for an average administrator allocation per 100 pupils (school and district combined) of 0.67 FTE (.38 + .29). This is very similar to what is seen at charters with a high degree of independence, which shows a ratio of administrators per 100 pupils of 0.72.

This important resource difference is reflected in the fact that charter schools with low, medium and high degrees of independence have 0.42, 0.61 and 0.72 administrators per 100 pupils. The greater their independence, the more school-level administrators they have. Or, another way to think about this, the greater their dependence, the more likely their administrative support will come more from the district rather than being directly at the school.

This phenomenon also affects the counts of pupil support staff per 100 students shown in Exhibit 4.2.1. These data, which only reflect school-level pupil support staff, show more support staff per 100 pupils in regular public schools. When you add the 0.18 support staff per 100 pupils found in the average district in the state, the overall support staff serving regular public schools doubles to 0.36 FTE per 100 pupils. This is considerable larger than the 0.11 pupil support staff found in highly independent charters, who report that they receive no assistance from the district and therefore presumably no services from district-level support staff.

Education and Experience

Teachers in regular public schools have more teaching experience on average (12.88 years) when compared to charters (7.38 years). Also in regular public schools, approximately two-thirds of teachers are tenured and 22 percent are designated as probationary, temporary, or long-term substitutes. In charter schools, on the other hand, less than a quarter of the teaching staff is tenured and 35 percent are probationary, temporary, or long-term substitutes.

Regular school administrators also tend to have more experience and to be more highly educated. In regular public schools, 82.7 percent of administrators hold advanced degrees and average 20 years of experience, as opposed to charters where 66 percent of the administrators hold advanced degrees and average 15 years of experience. Administrators in charter schools are also much newer to the district where they currently work (6.6 vs. 13.5 years of experience in the district).

Teachers in the most independent charter schools are more highly educated as compared to those in the least independent charters (32 vs. 24 percent hold advanced degrees). Teacher status and credentials are two variables that also vary greatly within charters. Compared to those with a low level of independence, the most independent charter schools have a lower percentage of teachers designated as probationary, temporary, or long-term substitutes (24 vs. 40 percent) and a significantly lower percentage who are tenured (8 vs. 39 percent).

Administrators in the most independent charters also have fewer years of experience than administrators in the least independent schools (13.8 vs. 16.5 years) and have fewer years of experience in the district (4.9 vs. 10.1 years).

Class Size

Two variables are most striking here. While charter and regular school class sizes are about the same for grades 1-3, as might be expected given the state's class size reduction provisions affecting all schools, an important resource distinction between these two types of schools is in the average class size difference in grades 4-5. Here, the regular public schools average about four more students per class (30.4 vs. 26.4) as compared to the average charter. Another substantial difference in the distribution of teaching resources is the substantially differing case loads for the two types of schools, at 198.1 for regular schools v 147.6 for charters.

Statistical Analyses of Resource Allocations

These resource descriptions provide a valuable summary of the levels and characteristics of personnel among charter and regular public schools, and across types of charters. However, it is hard to combine these data to make more comprehensive comparisons between regular schools, charters, and types of charters. Also, with a simple average it is hard to determine how important these differences in personnel are in the aggregate and how they relate to differences in the student population served across these schools.

In this section of the analysis, we use a multivariate OLS regression model, we address two questions: how personnel resources differ between charters and regular public schools, and how resources differ between charters with varying degrees of independence. The regression models specified below help address these questions:

$$\text{(Model 1)} \quad Y_{is} = A_0 + A_1HIGH_s + A_2MEDIUM_s + A_3LOW_s + A_4X_s + E_{is}$$

$$\text{(Model 2)} \quad Y_{is} = A_0 + A_1HIGH_s + A_2MEDIUM_s + A_3X_s + E_{is}$$

Where Y equals resource variable i for school s ,²¹ $HIGH$ is a dummy variable indicating whether a school has a high degree of independence from the district, $MEDIUM$ is a dummy variable indicating whether the charter has a medium degree of independence from the district, LOW is a dummy variable indicating whether the charter has a low degree of independence from the district, and X indicates important school characteristics such as percentage of students in poverty, percentage of English learners, and percentage of African-American students at the school. In the regression results presented in this section, the percentage of students in poverty is the only control used. Appendix 3.1 includes the regression results in which additional controls were included in the analysis.²²

²¹ As our dependent variables, we use the resource variables defined in Exhibit 4.2.1 (teachers per 100 pupils, average years of education, and average years of experience, for example).

²² The regression results that include additional school characteristics (such as ethnic composition) do not differ significantly from the results presented in this chapter. See Appendix 3.1.

Model 1 includes all public schools in California so that the coefficients measure differences among charter schools with respect to traditional public schools (the control group) (Exhibit 4.2.2). A second version of Model 1 was conducted comparing charter schools and traditional public schools with less than five years of operation. Results are presented in Appendix 3.2, and important findings are referred to in this chapter as well.

Model 2 only includes charter schools. Here, the control group is the charter schools with the lowest degree of independence. The full results from this analysis are presented in Exhibit 4.2.3.

Exhibit 4.2.2 OLS Regression Results –Model 1

Category	Var #	Dependent Variable	Regular Public Schools	Charter School Independence Level:			Poverty	Observations	R-squared
			Constant	High Coef	Medium Coef	Low Coef	Coef		
Levels of Certified Staff	1	Teachers per Pupil	0.049	0	0	0	0.003	7918	0.00
	2	Administrators per Pupil	0.002	0.004	0.003	0.001	0.001	7918	0.02
	3	Pupil Support Staff per Pupil	0.002	0	0	0	0	7918	0.00
Levels of Experience and Education	4	Teachers: Average Total Years of Education	17.4	-0.4	-0.3	-0.3	-0.3	7921	0.06
	5	Teachers: Average Total Years of Experience in Education	14.3	-6.6	-6.0	-3.6	-2.7	7921	0.14
	6	Administrators: Average Total Years of Education	18.4	-0.3	-0.6	-0.2	-0.2	7475	0.02
	7	Administrators: Average Total Years of Experience in Education	21.1	-6.3	-5.8	-3.6	-2.7	7475	0.03
Experience : Education	8	Teachers: Total Years of Experience per Total Years of Education	0.8	-0.4	-0.3	-0.2	-0.1	7921	0.14
	9	Pupil Support Staff: Total Years of Exp. Per Total Years of Education	0.9	-0.4	-0.3	0	-0.1	4453	0.01
	10	Administrators: Total Years of Experience per Total Years of Education	1.1	-0.3	-0.3	-0.2	-0.1	7475	0.02
Staff Distribution	11	Share of Total Staff who are Teachers	92.0%	-5.7%	-3.6%	-1.3%	0	7922	0.02
	12	Share of Total Staff who are Administrators	4.4%	7.2%	4.7%	2.4%	1.3%	7922	0.10
	13	Share of Total Staff who are Pupil Support Staff	3.6%	-1.5%	-1.0%	-1.1%	-1.1%	7922	0.01
Teacher Support Capacity	14	Teachers per Administrator	22.1	-10.8	-9.5	0	-2.8	7475	0.04
	15	Teachers per Pupil Support Staff	26.8	0	0	0	-2.3	4453	0.00
Teacher Status & Credentials	16	Share of Teachers who are Probationary or Temporary	20.9%	0.0%	13.1%	18.0%	2.1%	7921	0.02
	17	Share of Teachers with Tenure	78.6%	-63.8%	-50.2%	-32.2%	-18.7%	7921	0.18
	18	Share of Teachers with Full Credentials	98.0%	-31.1%	-19.0%	-8.2%	-5.5%	7921	0.21
Class Sizes and Case Loads	19	Average Class Size: Kindergarten Self Contained Classrooms	22.9	0	0	0	-2.5	5113	0.02
	20	Average Class Size: Grades 1 - 3 Self Contained Classrooms	20.7	0	0	0	-1.1	5174	0.02
	21	Average Class Size: Grades 4 - 5 Self Contained Classrooms	32.3	0	-4.2	-4.4	-3.5	5043	0.01
	22	Average Case load: Core Subjects	136.8	-32.4	-26.8	0	0	1068	0.07
	23	Average Case Load: Electives	194.7	-55.9	-53.6	0	0	2834	0.01

*0 = not statistically significant at 10%, 5%, or 1%. To facilitate table readability, coefficients that are not statistically significant are set to 0.

Exhibit 4.2.3 OLS Regression Results –Model 2

Category	Var #	Dependent Variable	Charter School Independence				Observations	R-squared
			Low	Level:		Poverty		
				Constant	High			
Levels of Certified Staff	1	Teachers per Pupil	0.053	0	0	0	393	0.008
	2	Administrators per Pupil	0.004	0.002	0.003	0	393	0.024
	3	Pupil Support Staff per Pupil	0.001	0	0	0	393	0.008
Levels of Experience and Education	4	Teachers: Average Total Years of Education	17.0	0	0.0	-0.2	394	0.023
	5	Teachers: Average Total Years of Experience in Education	10.7	-2.5	-2.9	-3.0	394	0.122
	6	Administrators: Average Total Years of Education	18.0	0	0	0	329	0.014
	7	Administrators: Average Total Years of Experience in Education	17.2	-2.5	0	0	329	0.018
Experience : Education	8	Teachers: Total Years of Experience per Total Years of Education	0.6	-0.1	-0.2	-0.2	394	0.121
	9	Pupil Support Staff: Total Years of Experience per Total Years of Education	0.9	-0.2	-0.3	-0.2	119	0.070
	10	Administrators: Total Years of Experience per Total Years of Education	1.0	-0.1	0	0	329	0.017
Staff Distribution	11	Share of Total Staff who are Teachers	91.8%	-2.5%	-4.6%	-2.3%	394	0.031
	12	Share of Total Staff who are Administrators	6.6%	2.2%	4.7%	2.0%	394	0.035
	13	Share of Total Staff who are Pupil Support Staff	1.6%	0	0	0	394	0.007
Teacher Support Capacity	14	Teachers per Administrator	19.0	-7.7	-8.7	0	329	0.037
	15	Teachers per Pupil Support Staff	30.0	0	0	0	119	0.022
Teacher Status & Credentials	16	Share of Teachers who are Probationary or Temporary	40.0%	0	-14.6%	0	394	0.014
	17	Share of Teachers with Tenure	38.3%	-19.2%	-30.8%	0	394	0.088
	18	Share of Teachers with Full Credentials	92.9%	-10.7%	-22.9%	-13.2%	394	0.097
Class Sizes and Case Loads	19	Average Class Size: Kindergarten Self Contained Classrooms	20.9	0	0	0	157	0.0224
	20	Average Class Size: Grades 1 - 3 Self Contained Classrooms	20.9	0	0	-2.2	149	0.0406
	21	Average Class Size: Grades 4 - 5 Self Contained Classrooms	26.6	0	0	0	137	0.0009
	22	Average Class Size: Core Subjects	95.7	0	0	0	270	0.0033
	23	Average Class Size: Electives	173.6	0	0	0	194	0.0125

*0 = not statistically significant at 10%, 5%, or 1%. To facilitate table readability, coefficients that are not statistically significant are set to 0.

Levels of Certified Staff

Neither regression model shows differences in the overall levels of teachers and pupil support staff when controlling for poverty. With school-level administrative staff, however, there are statistically significant and positive differences between all charters compared to regular public schools—charters have more school-level administrators per pupil than regular public schools. The difference is greatest for charters with a high degree of independence, which have twice as many school-level administrators per pupil as regular public schools.

As discussed above, however, only measures of school-level administrators were available for this analysis, so in a sense this analysis fails to compare like situations in terms of overall administration for a number of charters. Also, as these data do not include all support staff (those assigned to the district as well as directly at schools), it is likely that there is a disparity in support staff between charters and regular public schools that do not fully appear in these regression results.

Levels of Experience and Education

With respect to teacher experience, the coefficient across all charter school categories is statistically significant and negative, with an average magnitude of 5. In other words, teachers in charter schools have approximately five fewer years of experience relative to teachers in regular public schools. With 6.6 fewer years of experience, teachers in charters with a high level of independence differ most acutely from their counterparts in regular schools.

Teachers in charters with successively lower levels of independence have 6.0 and 3.6 fewer years of experience compared to teachers in regular public schools. With respect to levels of educational attainment, teachers in all charters have fewer years of education relative to teachers in regular public schools, and again, the largest difference occurs with respect to highly independent charters.

When the sample is restricted to charter and traditional public schools that have been in operation for five or fewer years, the results have a similar pattern but the magnitudes are somewhat smaller. Teachers in the most independent charter schools have 4.0 fewer years of experience compared to teachers in traditional public schools.

The results point towards a similar pattern for administration. Across all charter school groups, administrators have approximately five fewer years of experience relative to their counterparts in regular public schools, where administrators average 21 years of experience in education.

With six fewer years of experience relative to administrators in regular public schools, administrators in charters with a high degree of independence are the least experienced among the charter groups and administrators in charters with medium and low degrees of independence have successively smaller differences relative to regular public schools. When the sample is restricted to schools that have been in operation for five or fewer years, the differences are the same (i.e., administrators in highly independent charter schools have six fewer years of experience than administrators in regular public schools).

The results indicate that administrators across all charters also have lower education levels relative to public school administrators. Again, these characteristics should be taken into account when academic performance levels are compared across charters.

Staff Distribution

Controlling for poverty, 92 percent of staff in the average public school are teachers, 5 percent are administrators, and 3 percent are pupil support providers. Charters, on average, allocate approximately 4 percent fewer staff to teaching, 1 percent fewer in pupil support, and 5 percent more in administrative assignments.

With 6 percent fewer staff in teaching assignments and 7 percent more staff in administrative assignments, the most independent charters show the largest difference relative to regular public schools. Charters with the least independence, with 1 percent fewer staff in teaching assignments and 2 percent more staff in administrative assignments, closely resemble regular public schools. These findings, of course, must also be tempered by the fact that they only are comparing the distribution of school-level administrative staff.

Teacher Support Capacity

Controlling for poverty, the typical regular public schools has 21 teachers per administrator. While the least independent charter schools are not statistically significantly different from regular public schools, the coefficients for charters with a medium and high degree of independence are significant and large, indicating approximately 10 fewer teachers per administrator. Again, however, these findings are skewed somewhat in the comparison of regular public schools and low independence charters in relation to high independence charters where all of the administrative support received is at the school level.

Teachers' Status and Credentials

In regular public schools, holding poverty constant, 22 percent of teachers are probationary, temporary, or long-term substitutes, and 69 percent have tenure. With the exception of charters with a high degree of independence (which show no statistically significant difference from regular public schools), charter schools have approximately 16 percent more teachers designated as probationary, temporary, or long-term substitutes. When only schools that have been in operation for five or fewer years are considered, charters with a high degree of independence show statistically significant differences compared with regular public schools. About 65 percent of the teachers at these schools are in probationary status, compared to 35 percent in traditional public schools.

In regard to tenure, the effect sizes for all charter groups are significant and negative, averaging 47 percent fewer teachers with tenure relative to regular public schools. With 65 percent fewer tenured teachers than regular public schools, the largest difference is observed with respect to the most independent charters. These findings hold true even when the sample is restricted to new schools.

In comparison to regular public schools, all charter schools have a smaller proportion of teachers holding a full credential. For the most independent charters, the difference is 31 percent fewer teachers and for the least independent charters 8.2 percent fewer teachers.

Class Sizes and Case Loads

Among the class size variables there is evidence that fourth and fifth grade self-contained classrooms in charters with a low and medium degree of independence from the district are smaller than the classrooms in regular public schools. Case loads for core and elective subject teachers are smaller in charters with a medium and high degree of independence in comparison to regular public schools. Case loads in charters with the least independence are no different than in regular public schools.

Summary

In terms of personnel, charter schools differ somewhat from regular public schools, and among themselves in accord with their degree of independence. In general, although no differences are detectable in the levels of teaching staff, we find that charters tend to have more school-based administrators and fewer school-based pupil support staff. The finding for administrators is tempered by the fact that district administrators also provide services to traditional and charter schools with low independence, but only provide oversight to highly independent charter schools. This broader consideration of staff to also include district-level pupil support staff, however, makes the disparity even larger than shown above.

Teachers and administrators in charter schools have substantially fewer years of experience in comparison to their counterparts in regular public schools. This is true, even though the magnitudes are smaller, when only schools with five or fewer years of existence are considered in the analysis. In regard to tenure, the largest difference is observed with respect to the most independent charters, with 65 percent fewer tenured teachers than traditional schools. Within charters, schools with a high degree of independence tend to distinguish themselves most clearly from regular public schools, while charters with a low degree of independence tend to closely resemble traditional public schools.

SECTION II-B: RESOURCE ALLOCATION AS AN OPTIMIZATION PROBLEM: RESULTS

In this section we go one step further in the analysis of resource allocation practices of charter and traditional public schools in California. The main objective is to relate resource allocation practices to differences in student academic achievement. It is beyond the scope of this study to conduct a comprehensive academic achievement evaluation of students attending charter schools.²³ The primary objective of the analysis that will be presented below is to relate differences in resources to the academic performance gap observed between different types of schools. In order to do so, we estimate the model already presented in Section I. Once this model is estimated, we analyze if observable differences in resource allocation practices among charter and traditional public schools are able to explain differences in academic performance. The final analysis presented in this section addresses the question of whether charter schools use available resources in a more efficient way than traditional public schools.

²³ For studies that analyze the academic performance of students attending charter schools in California and other states the reader should refer to Solomon, Paark and Garcia (2001), Sass (2004), Zimmer and Buddin (2005), Hanushek, Kain, and Rivkin (2002), Booker et al. (2004), for example.

The Academic Production Model

Using statewide data for the 2004-05 school year we estimate the following model (Equation (3)) presented in the theoretical framework):

$$\text{Max } L \equiv A \overline{edu}^{\alpha} \overline{exp}^{\beta} \left(\frac{tea}{enr}\right)^{\gamma} \overline{pov}^{\delta} \overline{els}^{\eta} enr$$

The standardized CST scale scores results for English language arts (ELA) and mathematics are used as a measure of academic outcome (\bar{Y}).²⁴ CBEDS and other extant statewide data are used to measure enrollment (enr), and the number of teachers (FTEs) at each school (tea) and their educational attainment and teaching experience. With this information we estimate the average years of teacher experience (\overline{exp}) and education (\overline{edu}) for all teachers at each school. The percentage of students eligible for free or reduced price lunch (a proxy for poverty) and the percentage of English learners are measured also, using other extant data sources.

Exhibit 4.2.4 shows the OLS results. All regressors are statistically significant at 1 percent, and have the expected sign. Average school-level academic outcome increases with higher teacher education and higher teaching experience, as well as with increases in the ratio of teachers per students. In addition, with increases in the poverty level—as measured by the percentage of students eligible for free or reduced price lunch and/or who are English learners, the average school-level performance decreases. The R-squared values are very high for cross-sectional regressions, at 0.6 for CST mathematics and 0.7 for CST ELA.

Exhibit 4.2.4. OLS Regression of Average School-Level Academic Achievement

	Standardized CST Math	Standardized CST ELA
Ln (Average years of teaching experience)	0.179 (0.022)***	0.215 (0.018)***
Ln (Average years of teacher education)	1.186 (0.300)***	1.498 (0.246)***
Ln (teachers per student)	-0.043 (0.047)	0.178 (0.038)***
Ln (Percentage of students eligible for free or reduced price lunch)	-0.554 (0.012)***	-0.528 (0.009)***
Ln (Percentage of English learners)	-0.047 (0.009)***	-0.027 (0.008)***
Ln (Percentage of Hispanics)	-0.262 (0.014)***	-0.276 (0.012)***
Ln (Percentage of African Americans)	-0.033 (0.005)***	-0.020 (0.004)***
Constant	-3.356 (0.839)***	-3.747 (0.685)***
Observations	6,164	7,060
R-squared	0.6452	0.7324

* Significant at 10%, ** significant at 5%, *** significant at 1% (p-values in parenthesis).

²⁴ The school-level outcome measure was created standardizing grade-level scale scores. This procedure allowed us to quantify the distance (measured in standard deviations) between the mean of a subgroup of schools (charter schools, for example) for the average performance of the state (set to zero).

Academic Achievement and Resource Allocation

The previous section described in detail how charter schools use their available resources in comparison to traditional public schools in California. In this section we try to link these resource allocation patterns to student outcomes. How does charter school performance compare with that of traditional public schools? How is their performance related to the level of resources and the characteristics of the students they serve?

We first analyze English language arts (ELA). In terms of observed average student achievement, measured by ELA, charter schools perform at a level similar to regular public schools. The average standardized CST ELA test score for charter schools with varying degrees of independence is 0.10 for the most independent charters, 0.06 for charters with a medium degree of independence, and 0.08 for the least independent charters. These results show that all charter schools are performing above the state average (the standardized state average is zero). The next question is the extent to which this level of performance is expected, given the resources charters have and the student population they serve.

Exhibit 4.2.1 shows average levels of inputs for the most independent charters and for traditional public schools. Note that only inputs of the production function described in Section I are considered. As shown, charter schools employ teachers with slightly fewer years of education than regular public schools (17.03 versus 17.27). The difference is most notable in the case of teaching experience. On average, teachers in highly independent charters have about six fewer years of professional experience (see Appendix 4 for a detailed graph). Given the estimated OLS coefficients of the production function, this lower teacher experience level translates into an academic performance disadvantage of about 0.14 standard deviations for students at these charters.

Nevertheless, the relatively smaller class size in grades 4 and 5 somewhat offsets this negative effect. As shown, classrooms in regular public schools have, on average, four more students in this grade span than the most independent charters. Overall, taking into account the effects of teacher education, experience, and class size, differences in resources predict a lower average performance (of 0.14 standard deviations) for the most independent charters.

In reality, the most independent charters perform almost the same as regular public schools in ELA. So what factors appear to explain the difference between expected and observed performance at these schools? Exhibit 4.2.5 shows that these schools differ in terms of the types of students they serve. Independent charters have lower percentages of students in poverty. The percentage of students eligible for free or reduced price lunch is 39 percent in independent charters and 51 percent in regular public schools. They also have lower percentage of English learners (17 versus 26 percent) and Hispanic students (33 percent versus 44 percent), and higher percent of African-American students (21 percent versus 7.4 percent).

Differences in student demographics predict—by themselves—higher achievement for independent charters, offsetting the negative effect of their less experienced teacher workforce. In summary, holding resources and student characteristics constant (measured by poverty, percent of ELs, and ethnic composition), traditional public schools and the set of most

independent charter schools not only perform about the same on CST ELA, but are also performing at the level predicted by the level of resources and demographics.

Exhibit 4.2.5. Explained Difference in CST ELA Scores between Most Independent Charters and Regular Public Schools (2004-05)

	Most Independent Charter Schools	Regular Public Schools	Effect on Student Achievement CST ELA (In Standard Deviations)
	1	2	3
A Average years of teacher education	16.95	17.27	-0.028
B Average years of teaching experience	6.65	12.88	-0.142
C Average class size - grades 4 – 5	26.25	30.40	0.026
D Difference due to resources (A3 + B3 + C3)			-0.144
E Poverty	0.39	0.51	0.142
F Percent English learners	0.17	0.26	0.011
G Percent Hispanics	0.33	0.44	0.079
H Percent African-Americans	0.21	0.07	-0.021
I Difference due to demographics (E3 + F3 + G3 + H3)			0.210
J Total predicted difference (D3 + I3)			0.066
			Observed Difference in Student Achievement
K Average standardized CST ELA score	0.10	0.08	0.02

In the following exhibit, we compare less independent charter schools and regular public schools. As detailed previously, charter schools that are less independent have teacher and student characteristics that tend to be more aligned with what we observe in regular public schools. Teachers' professional experience increases (from 6.65 years in independent charters to 9.52 years), as well as the percentage of students eligible for free or reduced price lunch and the percentage of English learners. This closer resemblance to public schools generates a smaller predicted achievement gap due to differences in inputs (of -0.07 standard deviations), as well as in student characteristics (of 0.18 standard deviations). Again, the effect of the less challenging student population that charters serve cancels out the effect of their lower levels of inputs. In fact, combining these two factors, the OLS regression results predict that less independent charters should perform about 0.11 standard deviations higher than regular public schools. Instead, their average performance is about the same, leaving this lower-than-expected performance of less independent charters unexplained by their resource inputs and student characteristics.

Exhibit 4.2.6. Explained Difference in CST ELA Scores between Least Independent Charters and Regular Public Schools (2004-05)

	Least Independent Charter Schools	Regular Public Schools	Effect on Student Achievement CST ELA (In Standard Deviations)
	1	2	3
A Average years of teacher education	16.97	17.27	-0.026
B Average years of teaching experience	9.52	12.88	-0.065
C Average class size - grades 4 – 5	26.33	30.40	0.026
D Difference due to resources (A3 + B3 + C3)			-0.066
E Poverty	0.41	0.51	0.114
F Percent English learners	0.19	0.26	0.008
G Percent Hispanics	0.36	0.44	0.053
H Percent African-Americans	0.07	0.07	0.000
I Difference due to demographics (E3 + F3 + G3 + H3)			0.176
J Total predicted difference (D3 + I3)			0.110
			Observed Difference in Student Achievement
K Average standardized CST ELA score	0.06	0.08	-0.02

Exhibit 4.2.7 shows the simulation results for CST mathematics for the most independent charters. The simulation shows that the negative effect of less inputs (-0.140) should tend to offset the positive effect of the student population that these charters serve (0.168). Therefore, in the aggregate, we should expect to see independent charters performing at a level similar to regular public schools. But as shown, their observed performance in math is substantially lower than expected (-0.31 standard deviations lower than the public school average).

Exhibit 4.2.7. Explained Difference in CST Math Scores between Most Independent Charters and Regular Public Schools (2004-05)

	Most Independent Charter Schools	Regular Public Schools	Effect on Student Achievement CST Math (In Standard Deviations)
	1	2	3
A Average years of teacher education	16.95	17.27	-0.022
B Average years of teaching experience	6.65	12.88	-0.118
C Average class size - grades 4 – 5	26.25	30.40	0.000
D Difference due to resources (A3 + B3 + C3)			-0.140
E Poverty	0.39	0.51	0.148
F Percent English learners	0.17	0.26	-0.019
G Percent Hispanics	0.33	0.44	0.074
H Percent African-Americans	0.21	0.07	-0.035
I Difference due to demographics (E3 + F3 + G3 + H3)			0.168
J Total predicted difference (D3 + I3)			0.028
			Observed Difference in Student Achievement
K Average standardized CST ELA score	-0.25	0.06	-0.31

Finally, the observed and expected achievement gaps between the least independent charters and public schools in CST math are relatively small. Exhibit 4.2.8 presents the results of this simulation.

Exhibit 4.2.8. Explained Difference in CST Math Scores between Least Independent Charters and Regular Public Schools (2004-05)

	Charter Schools Least Independent	Regular Public Schools	Effect on Student Achievement CST Math (In Standard Deviations)
	1	2	3
A Average years of teacher education	16.97	17.27	-0.020
B Average years of teaching experience	9.52	12.88	-0.053
C Average class size - grades 4 – 5	26.33	30.40	0.000
D Difference due to resources (A3 + B3 + C3)			-0.074
E Poverty	0.41	0.51	0.119
F Percent English learners	0.19	0.26	-0.015
G Percent Hispanics			0.050
H Percent African-Americans			0.000
I Difference due to demographics (E3 + F3 + G3 + H3)			0.155
H Total predicted difference (D3 + G3)			0.080
			Observed Difference in Student Achievement
I Average standardized CST ELA score	0.05	0.06	-0.01

In summary, independent charter and regular public schools are performing at the level that is predicted by their resources and students characteristics. In addition, both groups of schools are also performing at similar academic levels as measured by the CST ELA. When less independent charter schools are compared with traditional public schools, we found that both schools are also performing at a similar level (measured by the CST ELA); however, less independent charter schools seem to be performing at a lower level than what is predicted by their level of resources and student characteristics

When the academic achievement is measured by the CST mathematics results, results show that these schools are not only performing at a much lower level than regular public schools, but also that their performance level is substantially lower than expected. In the case of the least independent charter schools, they are not only performing similarly to regular public schools, but their actual level of achievement is also closer to their predicted level.

The Cost of Independence

So far we have learned that the most notable difference between charters and traditional public schools, at least in terms of resource allocation at the school level, is that higher independence tends to be associated with lower levels of teaching experience. There are different hypotheses that may explain this fact. First, given that charter schools face fewer regulatory constraints, they may be freer to choose their optimum mix of inputs in order to support student learning. Therefore, hiring relatively younger teachers could be interpreted as a result of an internal optimization process.

A second possible explanation comes from the supply side of the teacher labor market. It is possible that teachers who already have tenure in public schools are simply not willing to sacrifice their professional security for a position in a charter school. In addition, as young teachers gain experience working at charters, they may pursue a career in regular public schools. In that case, even if charters would like to attract/retain more experienced teachers, they may not be able to do so.

A third possible explanation is that charter schools simply cannot hire more experienced teachers due to budgetary constraints. More independent charter schools are more likely to be startup schools. These schools, for the most part, need to find and cover the costs of their facility (which is not the case for conversion charter schools). These additional costs that independent charter schools need to cover could force them to reduce salaries expenses, hiring less experienced teachers.

This section considers these hypotheses, asking whether there is evidence that independent charter schools are operating closer to an optimum resource allocation than regular public schools. It also explores the efficiency gains that might result from moving these institutions closer to the optimum allocation. The analysis concentrates on teacher characteristics, and is a partial equilibrium approach. A global optimization approach to this question is left for further research.

The two teacher characteristics that we focus on are teacher education and teaching experience. In order to identify an optimum ratio of these two important inputs it is necessary to combine the results of the estimation of the production function (see Exhibit 4.2.4) with a linear wage equation. We use the theoretical model developed in Section I. The first order conditions of the average years of teacher education ($\overline{\text{exp}}$), and the average years of teaching experience ($\overline{\text{edu}}$), are the following:

$$\frac{\partial \ln(L)}{\partial \text{exp}} = \frac{\beta}{\text{exp}} - \lambda(\theta_2 \text{tear}) = 0 \quad (8)$$

$$\frac{\partial \ln(L)}{\partial \text{edu}} = \frac{\alpha}{\text{edu}} - \lambda(\theta_1 \text{tear}) = 0 \quad (9)$$

Therefore, the optimal ratio of teacher experience to teacher education is equal to:

$$\left(\frac{\text{exp}}{\text{edu}}\right)^{Eq.} = \frac{\beta}{\alpha} \frac{\theta_1}{\theta_2} \quad (10)$$

As shown in Equation (10), in order to estimate the optimum ratio of education versus experience, it is necessary to combine results from the production function (α and β) and the wage equation (θ_1 and θ_2).

The next step is to assess how close charter and public schools are to operating at this optimum ratio. To do this, it is necessary to first estimate the wage equation (Equation (5) in Section I).

To estimate this school-level wage equation, we use data from the Standardized Account Code Structure (SACS) and the Charter School Alternative Form Database (CSAFD) for 2004-05. One challenge of this analysis is that it combines district-level (SACS) and school-level (CSAFD) information. Given that wage schedules for public schools are defined by their school district, we will assume that they only vary at the district level. In addition, these district-level teacher salary expenditures also include expenditures for charter schools that use the SACS system to report their revenues and expenditures. In order to estimate Equation (8), it is necessary to first divide each district's total expenditure on teacher salaries by the number of schools (including those charter schools using SACS) operating in each district. This gives us an estimated teacher salary expenditure at the school level. The same procedure is used to get an estimated average of total number of years of teacher education and teaching experience for these schools.²⁵

Now all records, including those from SACS and the Alternative Form Database, show the total teacher salary expenditure and the total number of years of teacher education and teaching experience at the school level. As explained above, for those schools reporting in SACS these figures are obtained simply by taking the average across schools within each district. Given that Equation (8) relates average teacher wages to average teacher education and experience, it is necessary to divide the obtained school-level variables by the number of FTE teachers at each school.²⁶ Exhibit 4.2.9 shows the results of estimating the wage equation by Weighted Least Squares. The weight is given by the number of schools operating in each district. In the case of charter schools using the Alternative Form, their weight is equal to 1. We have also included a relative wage index (*cwi*) in order to take geographic and urban vs. rural wage differences into account. This was obtained from Heather Rose's work on the "Getting Down to Facts" project. This index is set equal to 1 for education salaries observed in Los Angeles Unified School District.

²⁵ Note that from CBEDS we can obtain actual (not average) figures of total number of years of teacher education and teaching experience for these schools. But given that the dependent variable—average expenditure on teacher salaries—does not vary within districts, this within-district variation of teacher education and teaching experience of schools reporting in SACS is not relevant for this wage regression.

²⁶ Again, for those schools reporting in SACS we use the average FTE teachers across schools within each district.

Note that we have centered the variable of years of education around 16 in order to get a constant that is easier to interpret. Therefore, the wage equation that we estimate in this section is the following:

$$\bar{W} = \theta_0 + \theta_1 (\overline{edu} - 16) + \theta_2 \overline{exp} + \theta_3 rwi \tag{11}$$

The weighted least squares results indicate that each additional year of average teacher education increases the average wage by about \$3,574. In contrast, one additional year of average teaching experience increases the average wage by about \$771. These results can also be used to estimate average teacher salaries for schools using their teacher education and experience profiles.

Exhibit 4.2.9. Weighted Least Squares Regression of Average School-Level Teacher Wage

	School-Level Average Teacher Salary
Average years of teacher education ^(a)	3,574 (0.007) ^{***}
Average years of teaching experience	771 (0.000) ^{***}
Relative wage index	30,548 (0.000) ^{***}
Constant	21,489 (0.000) ^{***}
Observations	1,229
Population size	9,224
R-squared	0.10

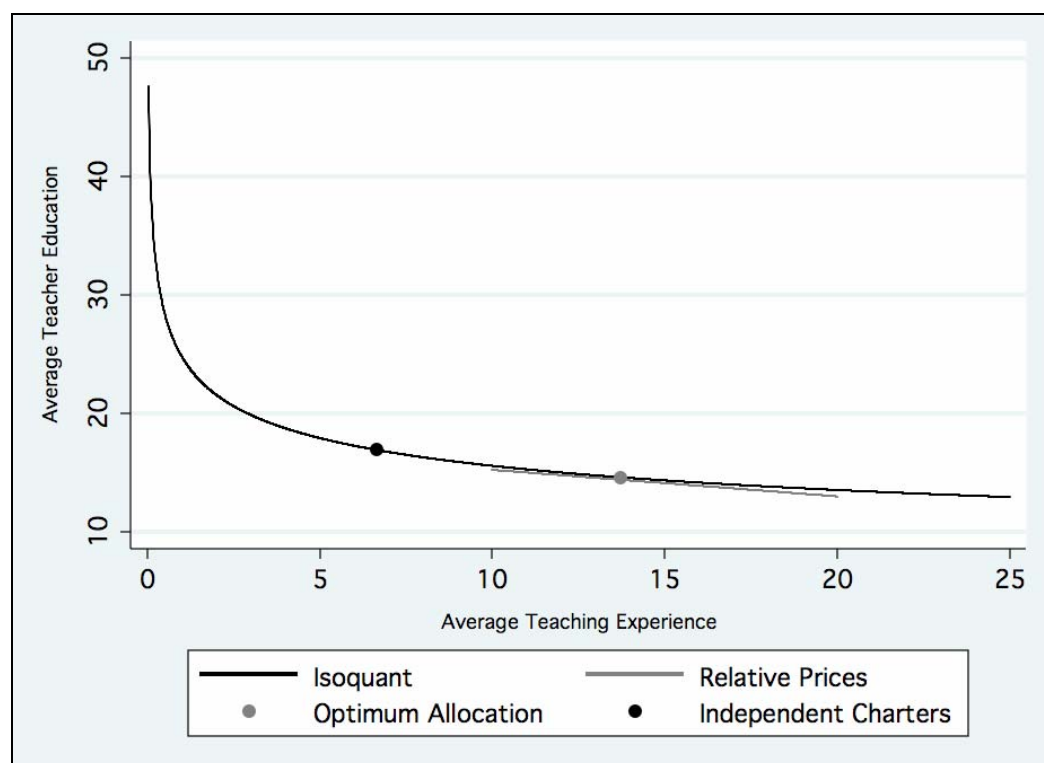
(a) Average educational level is centered at 16 years.

Combining the empirical estimates of the production function and wage equation, and the theoretical optimum ratio of teacher education versus teaching experience, we can now address the efficiency issue. Replacing the estimated parameters in Equation (10) we get that the optimum ratio is equal to:

$$\left(\frac{exp}{edu}\right)_{Eq.} = \frac{\beta}{\alpha} \frac{\theta_1}{\theta_2} = \frac{0.26}{1.287} \frac{3,574}{771} = 0.94$$

Exhibit 4.2.10 presents the isoquant of independent charter schools using CST math scores as the outcome variable. This line shows how the average 2004-05 academic achievement of BTO schools could be obtained using different combinations of teaching experience and education.²⁷ The graph also shows the optimum (where the isoquant is tangent to relative prices of inputs) and observed ratio of teacher characteristics in independent charters. As shown, the current ratio (0.39) is to the left of the optimum (0.94), implying that charters would be better off if they could substitute more professional experience for years of teacher education.

²⁷ This isoquant is drawn using the average class size observed in grades 4 through 5, as well as the average level of poverty and percentage of English learners served by these institutions.

Exhibit 4.2.10. Isoquant of Most Independent Charter Schools

We can address the efficiency issue by analyzing how much in monetary terms independent charter schools could save by moving from their current use of inputs to the optimum one. Exhibit 4.2.11 shows the results of this exercise. At a marginal cost of \$3,574 for each year of teacher education, and \$771 for each year of teaching experience, the current mix of these two resources has a monetary cost of \$65,706 per FTE. If independent charters used the optimum ratio of teaching experience to teacher education, they would face a monetary cost of \$62,912 per FTE. The potential gain in efficiency would be equal to \$2,795 per FTE. Multiplying this by the average number of FTE in teaching assignments in these charters (44), we get an estimated annual efficiency gain of \$122,980 per school (this assumes that charters could actually hire more experienced teachers).

Exhibit 4.2.11. Potential Efficiency Gains for Most Independent Charter Schools

	Average Years of Teacher Education	Average Years of Teaching Experience	Monetary Cost Of Inputs
Most independent charter schools	16.95	6.65	\$65,706
Optimum	14.65	13.71	\$62,912
Potential efficiency gain per FTE			\$2,795

Exhibit 4.2.12 shows the results of this same exercise for the least independent charters. It shows that the potential gains from moving to an optimum resource allocation are smaller than for more independent charters. The current mix of teacher education and teaching experience has a cost of

\$67,991. If these institutions were able to employ more experienced but less educated teachers, they would be able to maintain their current average academic achievement while saving \$1,103 per FTE. Since the average number of teachers (FTE) is around 72, this would translate into an annual efficiency gain of \$79,416 per school.

Exhibit 4.2.12. Potential Efficiency Gains for Least Independent Charter Schools

	Average Years of Teacher Education	Average Years of Teaching Experience	Monetary Cost Of Inputs
Least independent charter schools	16.97	9.52	\$67,991
Optimum	15.57	14.58	\$66,888
Potential efficiency gain per FTE			\$1,103

We know that regular public schools are operating with a ratio of teaching experience to teacher education (0.76) much closer to the optimum than charter schools. Unfortunately, we are not able to perform the potential efficiency gain exercise for public schools. Because the model developed in Section I is only a partial equilibrium one; it is not able to take general equilibrium effects into account, and therefore requires that only a small portion of the total pool of schools in the state optimize their resource usage.²⁸

In summary, the higher the degree of independence of charters, the less efficient they appear in terms of their mix of teacher characteristics. This provides evidence against our demand-side hypothesis, and suggests that teachers with more experience may be relatively reluctant to work at these private institutions. This generates what appears to be an inefficient allocation of resources. Independent charters, as well as low-performing public schools (see the successful schools report conducted by AIR that is part of this “Getting Down to Facts” project), could maintain their current academic achievement while reducing costs if they were able to attract or retain more experienced teachers with a lower level of education.

²⁸ To understand this limitation, consider an analysis of the current and optimum usage of resources for all public schools in California. If we learned that all of these institutions were operating at a non-optimal point, how could all public schools in California hire more or less experienced teachers? The amount of teaching experience is relatively fixed within the state, at least in the short to medium term. Even the effects of a relatively large school district, such as Los Angeles Unified School District (LAUSD), deciding to hire a large number of experienced teachers is not taking into account in this model. This higher demand for experienced teachers would tend to increase their wages in the labor market—an issue that is not incorporated into the model.

CHAPTER V. CASE STUDIES: OVERVIEW AND RESULTS

INTRODUCTION

This chapter responds to the research question of whether individual charter schools with especially unique resource allocation patterns can be identified. How might such schools be identified? If found, what are they doing that is different and how do these practices appear to affect student outcomes?

In an attempt to address these questions, we explored the kinds of data presented in Chapter 4 that allow comparison of resource allocation patterns at charter schools in relation to all other schools in California. As noted, the overall differences in resource allocation patterns across charters and regular public schools, while somewhat different, are not really that striking in the aggregate. Findings are also confounded by the many differences in the specifics of differing chartering arrangements.

As discussed, the most straightforward thing to do in regard to analyzing extant resource allocation for all California public schools is to compare those resources directly assigned at the school level to charters as compared to regular public schools. However, this misses a major part of the story for such resources as administrative services which regular public schools receive from school and district-level sources. For charters, it is not always that easy to tell the extent to which the resources shown at the school level are really all they have, or are supplemented by district-level resources.

We developed a typology to attempt and further distinguish among these differences, i.e. based on the degree of independence from the district. However, this kind of measure can not be applied with sufficient certainty for the selection of outlier charter schools in regards to resource allocation practices. We also did not know a great deal about varying resource allocation practices in charters at the onset of this analysis, nor is it a topic that has been explored in much depth by others. If we were to do it again, we might be able to make better use of the resource allocation available across all schools to more systematically search for and investigate outliers.

However, this study was commissioned at a point that was already fairly late in the school year and was on a very tight timeline. It was necessary to identify the kinds of schools we would like to visit very quickly, to contact them and explain who we were and why they should talk with us, and then to convince them to let us come and disrupt a full day of their school fairly late in the year at a time when tests were pending and the many others things associated with wrapping up the school year were occurring. We also had to develop site visitation procedures and protocol instruments at this time, as well as make ourselves as knowledgeable as possible about resource issues in charter schools in a relatively short period of time.

Thus, as described below, we relied on a nomination process for the charter schools we visited much more than extant data. Given the steep learning curve for this assignment, and the short time line in which we needed to have all this accomplished, we are very please with the final set of schools we were able to visit. They represent considerable variation in chartering

arrangements (by design we sought a mix of dependent and independent charters), degrees of affiliation with charter management organizations (CMOs), and variations in resource use. Most of the schools visited illustrate resource allocation patterns that vary substantially from the regular public school norm, and at least one clearly does not. In this sense, we got a picture of variation in resource allocation that goes well beyond what the data show in the aggregate.

At the onset of this discussion, it is also important to consider the nature of the research questions it intends to address. These questions are not focused on the long-standing debate as to whether charters are systematically different, or somewhat better or worse, than other public schools. These questions instruct us to look for and pursue outliers. As such, very little that is presented in this chapter should be construed as generalizable to California charters in the aggregate. These types of questions, as they pertain to resource allocation, were addressed to the best of our ability with data that are currently available in Chapter 4.

On the other hand, we believe that despite the unique nature of the case study schools described in this chapter, they are illustrative in regard to the charter concept and in regard to the consideration of resource allocation in public schools overall. While these schools were generally selected because they are atypical, they provide examples of what is being done (for better or worse) when charters more broadly avail themselves of the independence that charter law allows.

For example, at one of the charters visited for this study, Ralph Gates Elementary, practically the very first point they chose to emphasize is that they are a charter in name only. A representative of the district was present for the full visit and she and the principal were very clear that Ralph Gates was treated just like any other school in the district. On the other hand, one of the major and continuing points made by the principal of Vaughn Next Century Learning, Yvonne Chang, was their complete and total independence from the Los Angeles Unified School District. They are an independent charter that is not affiliated with a CMO and which seems to take great pride and appears to actively exercise every element of independence and freedom from extant rules and regulations offered them. At the same time, Vaughn was not as different in regard to resource use as some of the other schools we visited.

In short, a major impetus behind this study seemed to be an interest in true variations in regard to resource within the public schooling sector. For the most part, resource allocation patterns at one public school look much like all others. If true outliers in regard to resource use could be found across the public schooling sector, it seemed most likely that they would be found among charter schools, which are afforded much greater freedom and latitude in regard to what they are allowed to do. Even within this much more permissive environment, do we find schools that are doing something substantially different than other public schools? If yes, what is it? What appear to be the implications for student outcomes? To what extent are these differences an artifact of more permissive charter provisions, as opposed to something that virtually all public schools could do if they chose to reorganize themselves in this way?

Last, what do these findings suggest for the overall consideration of adequacy? The general adequacy discussion is mired in the long standing debate concerning the need for more resources to meet new high accountability standards as opposed to the better use of existing resources. To

what extent do the examples of these schools cast light on this discussion? As an example, under the professional judgment approach to adequacy, what resource specifications would result from a panel of independent charter school staff, and how would these differ from the results of the regular public school participants generally included in these deliberations? If a successful schools analysis were to place equal emphasis on highly successful independent charter schools, how would their resulting adequacy results compare with what they find when primarily, or exclusively, focusing on regular public schools?

In pursuit of this mix of questions and issues, we visited six charter schools in California. This chapter provides an overview of how these schools were selected and the data collection methods that were used during the site visits. It then presents findings and overarching themes.

HOW SCHOOLS WERE SELECTED

Selecting charter schools that have unique resource allocation patterns is not an easy task. As described above, what makes them unique not always is measurable with extant statewide data. We started by calling leaders in the field of charter schools to ask their perceptions about unique charter school characteristics and to request nominations of charter schools with unique resource allocation practices. These initial phone interviews were conducted with:

- Caprice Young, CEO of the California Charter School Association
- Mike Barr, Chief Financial Officer, Aspire Charter Schools
- Jed Wallace, Chief Operating Officer, High Tech High Organization
- Judy De Leon-Chavez, KIPP Foundation
- Martina Roediger, KIPP Foundation
- Mark Kushner, Founder of Leadership Public School
- Yvonne Chang, Principal of Vaughn Charter School, and member of the State Board of Education

The list of charter schools nominated included about 35 schools. We made the final selection based on the following characteristics: 1) the type of funding model (i.e., directly funded, or funded through the district); 2) if the charter school was a conversion or start-up school; and 3) if they were affiliated with a network or organization. The final selection included five charter schools. We then randomly selected one more charter school that was a conversion charter and funded through the district—a combination that we did not yet have in our pool. Exhibit 5.1 presents the final sample of charter schools we visited.

Exhibit 5.1. Final Sample of Visited Schools

	Type of Funding Model		
	Funded Through the District	Locally Funded	
		No network	With network
Conversion	Ralph A. Gates Elementary	Vaughn Next Century Learning	**
Start-up	Ernestine C. Reems Academy of Technology and Art	New City School	High Tech Middle Media Arts KIPP Bayview Academy

** The research team selected one charter school in this cell that was nominated, but the school refused to participate in the study due to time constraints.

It is important to mention that the case studies are not intended to be fully representative of the charter school population. Given the intensity of case study methods, a case study sample will almost always be too small to allow generalization to the full population. Rather, the goal of this methodology is to obtain in-depth qualitative information on unique characteristics of certain charter schools in the state, to help us identify areas in which charter schools are using their freedom, and how this is impacting the services they are providing to students in California.

CASE STUDY RECRUITMENT

To recruit these sites, we sent a letter of invitation outlining the study purpose and a site visit overview directly to the school principal, and followed up by telephone to obtain the school’s permission to conduct the site visit. AIR staff worked with the principal or other school staff to coordinate the site visit schedule. This included scheduling interviews, focus groups, and classroom observations. Participating school staff included randomly selected teaching staff in core subject areas as well as the principal. In the case of schools with a supporting organization, the school contact person helped us to select the person most suitable to participate in the interview. For the parent and student focus groups, schools were asked to invite participants representing a cross-section of the school population. We started this process at the beginning of April, knowing that the timing was not ideal given the testing that happens in the spring. However, we completed all site visits on time at the end of May.

DATA COLLECTION INSTRUMENTS

Site visits were designed to be conducted with one day spent at each school site by three site visitors. During the one-day school visit, we collected in-depth qualitative data through interviews and focus groups. At each school site, for the most part, we interviewed the principal and four teachers. In addition, we conducted focus groups with between eight and ten teachers, parents (conducted in either English or Spanish), and students (at the middle and high school level only). When applicable, we also interviewed someone from the organization that supports the charter school; for example, the KIPP foundation, and the High Tech High organization. In one case we also conducted an interview with a district employee in charge of overseeing the charter school. The research team also conducted approximately 30-minute classroom observations of interviewed teachers.

The case study data collection instruments were designed to address the research questions. The resulting categories of data collection instruments are as follows (all instruments are in Appendix 5):

- **Interviews with Principals, and Charter School Organization Representative:** The principal interview focused on questions related to the creation of the school, or in the case of conversion charter schools, the reasons underlying the decision to convert into a charter school. It includes questions about the school's governance structure, and relationships with and types of services the chartering agency provides. In addition, it includes questions about the school's hiring process, collective bargaining agreements, and what determines teacher salaries. We also included questions about the type and number of personnel in different categories of assignments. We concluded with questions related to fundraising, facilities funding, and special education. We asked the representative of the charter school organization about the type of support and services they provide to the school, among other general questions.
- **Interviews and Focus Groups with Teaching Staff:** This interview included questions about their motivation to teach in a charter school, or in the case of conversion schools, if they participated in the process of converting the school. It asked about their workload and if burnout and turnover were problems. It concluded with questions about the levels of resources and professional development available, and if they thought these were useful and adequate.
- **Parent Focus Groups:** These focus groups helped us understand why parents chose to enroll their child in a charter school. In the case of conversion schools, they included questions about parent participation in the conversion process. They also asked parents to provide specific examples of ways they believed the school is different from a traditional public school.
- **Student Focus Groups:** Students interviews included questions on the school climate and culture. They also asked why they had decided to come to that school, and concluded with questions about the quality of instruction and how engaged they felt at the school.
- **Classroom Observations:** These observations were designed to provide a snapshot of activities in the classroom. They focused on classroom environment, use of technology, lesson content, lesson delivery, assessment activities, and instructional resources and strategies as a basis broadening our perspective of the school.

ANALYSIS OF CASE STUDY DATA

In addition to the data gathered through the interviews, focus groups, and classroom observations, each site visitor completed a detailed summary with their overall impression of the school to allow for an amalgam of perspectives across the site visitation team. In addition, detailed information about the characteristics of the charter school was added, along with extant

statewide data of resource characteristics and levels (the same data that was used for the overall analysis presented in the previous chapter).

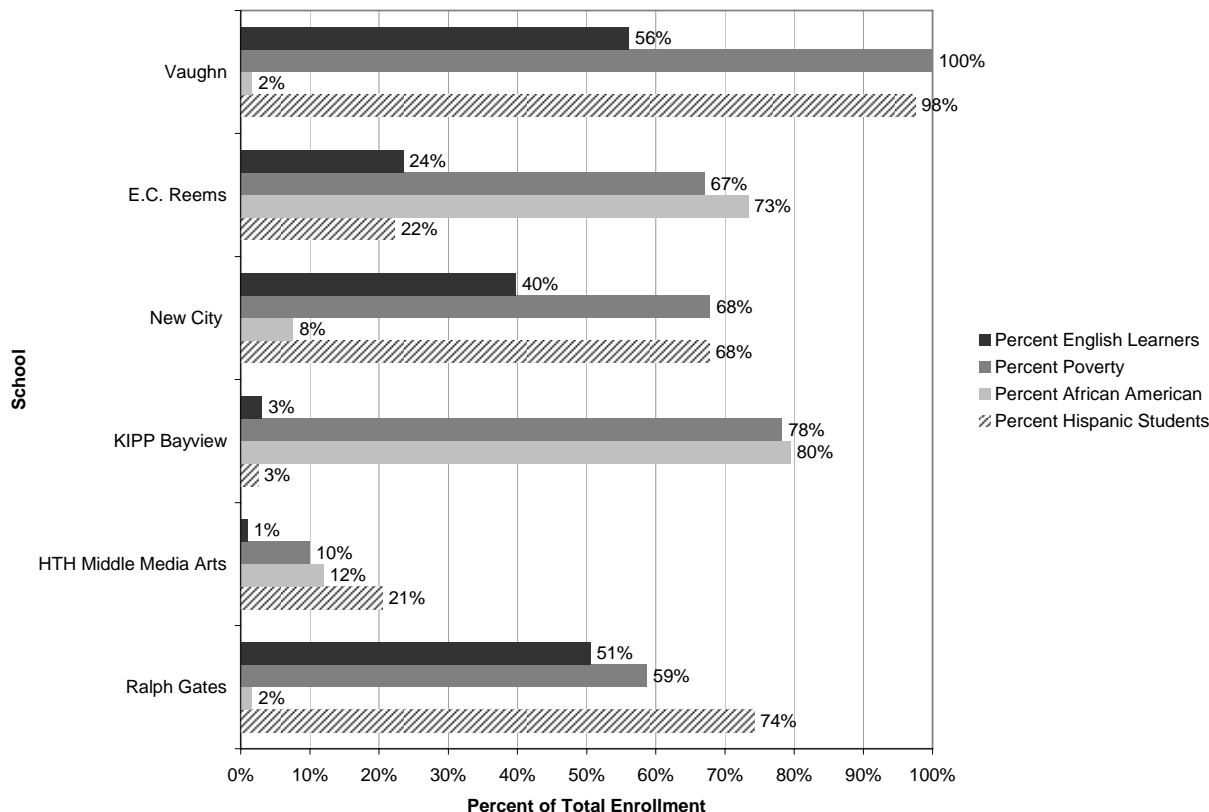
The analysis of case study data is divided into two sections. The first provides resource profiles for the visited schools. These are similar to the ones presented in Chapter 4 for all charter schools, including quantities and characteristics of personnel working at each school and key variables such as average class sizes, percentage of teachers holding full credentials, and percentage of teachers with tenure status. The second section includes a detailed summary for each charter school that was visited.

SECTION I: RESOURCE PROFILES

In this section, important demographic and resource characteristics are displayed for the visited charter schools. The main goal is to show unique aspects of their allocation of resources (e.g., teachers per pupil, administrators per pupil, education and experience level of their staff). Comparisons against overall averages for traditional public schools are also presented. It is important to also keep in mind the varying degrees of independence (as defined in the previous chapter) across these case study sites. Vaughn Next Century Learning (Vaughn), New City School (New City), KIPP Bayview Academy (KIPP), and High Tech Middle Media Arts (HTH Middle Media Arts) have a *high* degree of independence. E.C. Reems Academy of Arts and Technology (E.C. Reems), which has its funds channeled through the district but does not receive other services from them, has a *moderate* degree of independence. Ralph A. Gates Elementary School (Ralph Gates) has the *lowest* degree of independence. This charter school is not only funded through the district, but also receives virtually the exact same services from the district as do all of its other schools. The school's teacher bargaining agreement is also completely aligned with the district. These considerations are important to keep in mind when making comparisons across the different charter schools.

Exhibit 5.2 shows the percentages of English learners, students eligible for free and reduced price lunch (proxy for poverty), African-American students, and Hispanic students across the six charter schools we visited. With the exception of HTH Middle Media Arts, the case study schools serve a higher percentage of minority students than the statewide average. Two schools have predominantly African-American student populations (E.C. Reems and KIPP Bayview). All of Vaughn Next Century Learning’s students are eligible for free and reduced price lunch.

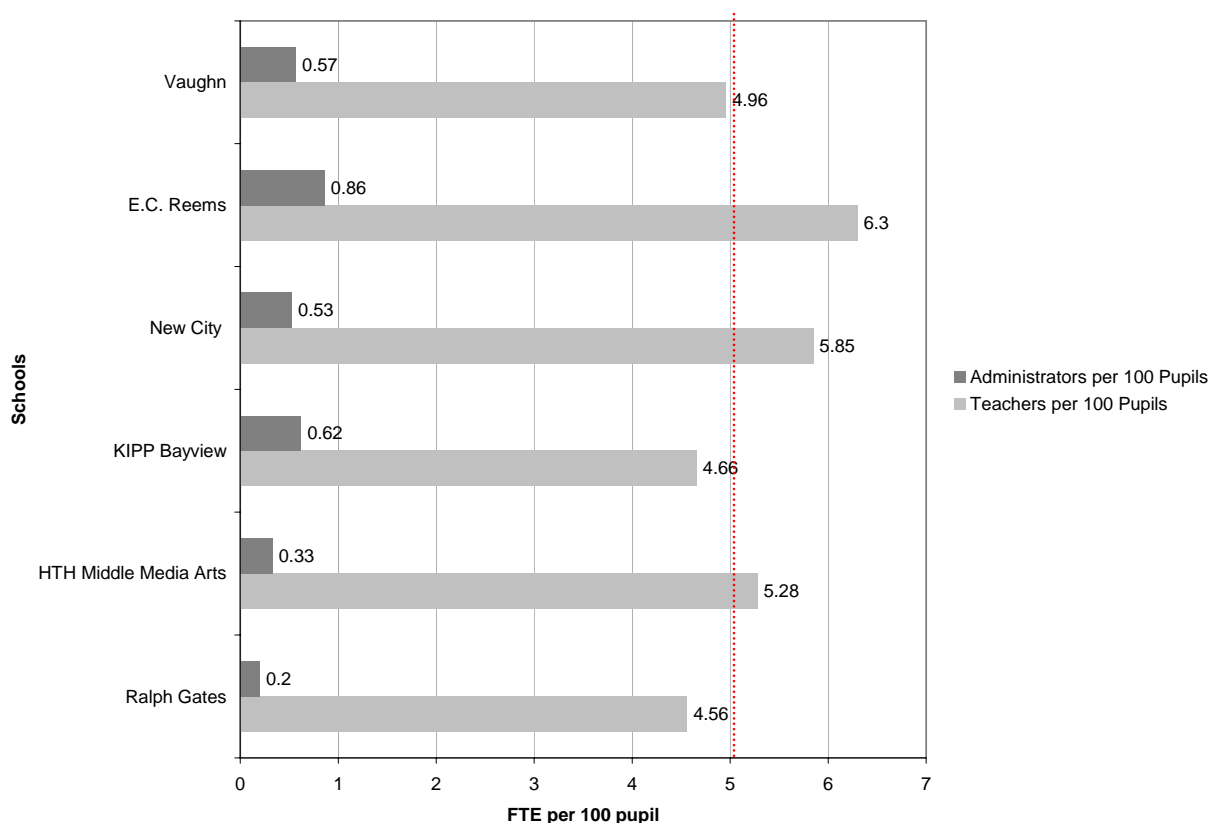
Exhibit 5.2. Demographic Characteristics across Visited Charter Schools



Source: California Department of Education, 2004-05. Because HTH Middle Media Arts was in its first year of operation, it was necessary to collect these data during of our site visit.

Exhibit 5.3 displays the number (FTEs) of administrators and teachers per 100 pupils (the dashed line represents the state average for teachers per 100 pupils in traditional public schools). E.C. Reems has the highest number of teachers and administrators per 100 students (6.3 and 0.86, respectively). Three of the site visit schools have fewer teachers than the statewide average of 5.06 per 100 pupils (dashed line). Ralph Gates Elementary is the only school that has fewer administrators per 100 pupils than the state average of 0.29. This may reflect the school’s low degree of independence and the fact that it receives administrative support from the district. Although district-level administrators add an estimated additional 0.2 FTE for Gates, which still places them near the bottom of the six sites on this measure. In addition, all of the schools except E.C. Reems have fewer administrators per 100 pupils than do charter schools with a high degree of independence as a whole (0.72, as shown in Exhibit 4.2.1).

Exhibit 5.3. Administrators and Teachers per 100 Pupils, across Visited Charter Schools

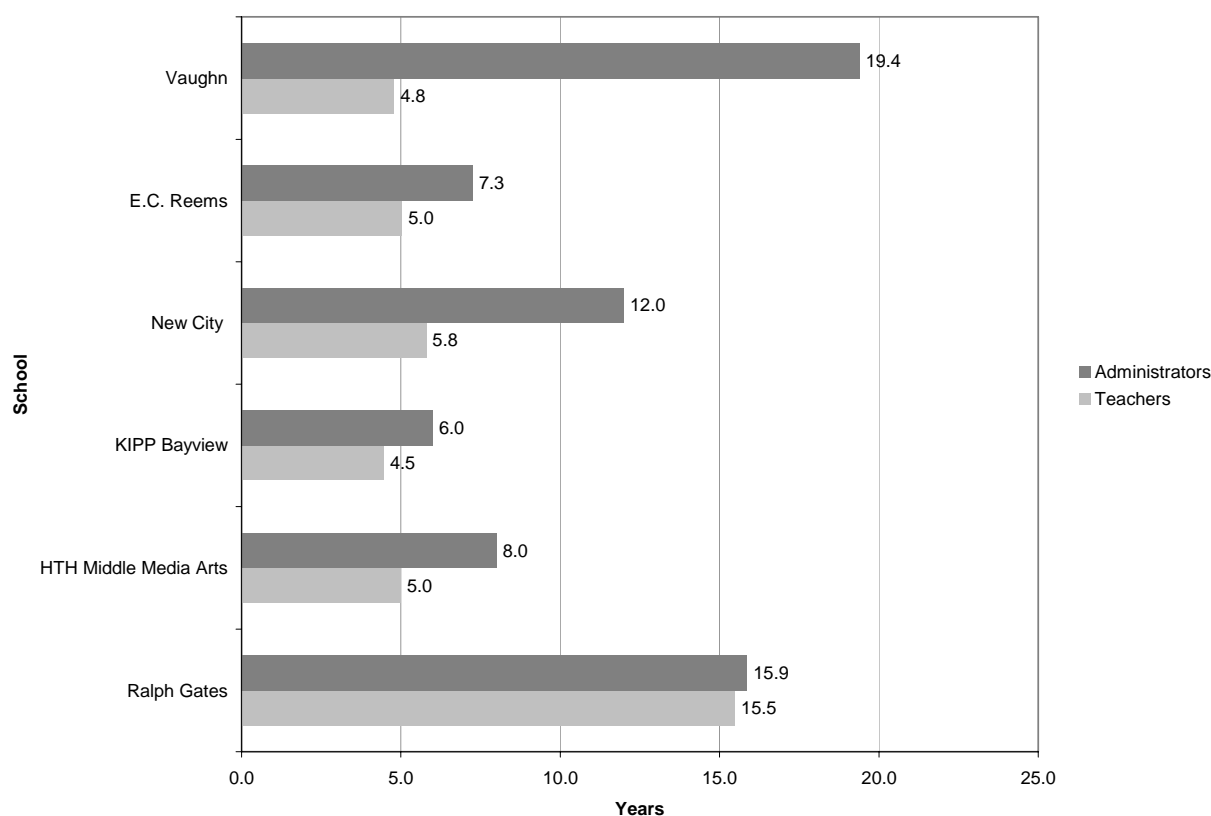


Source: California Department of Education, 2004-05. In the case of HTH Middle Media Arts, data was collected in our site visitation.

As shown in Exhibit 5.4, only administrators at Vaughn have a comparable level of education experience at 19.4 years as compared to the average across all regular public schools at 19.8 years. Administrators at all of the other schools shown below have between 3 and 12 fewer years of experience than the state average.

Regarding teacher experience, only Ralph Gates Elementary, at 15.5, shows more experience than the statewide average of 12.9 years. Across the other visited schools, teachers have approximately 7 fewer years of experience than the statewide average.

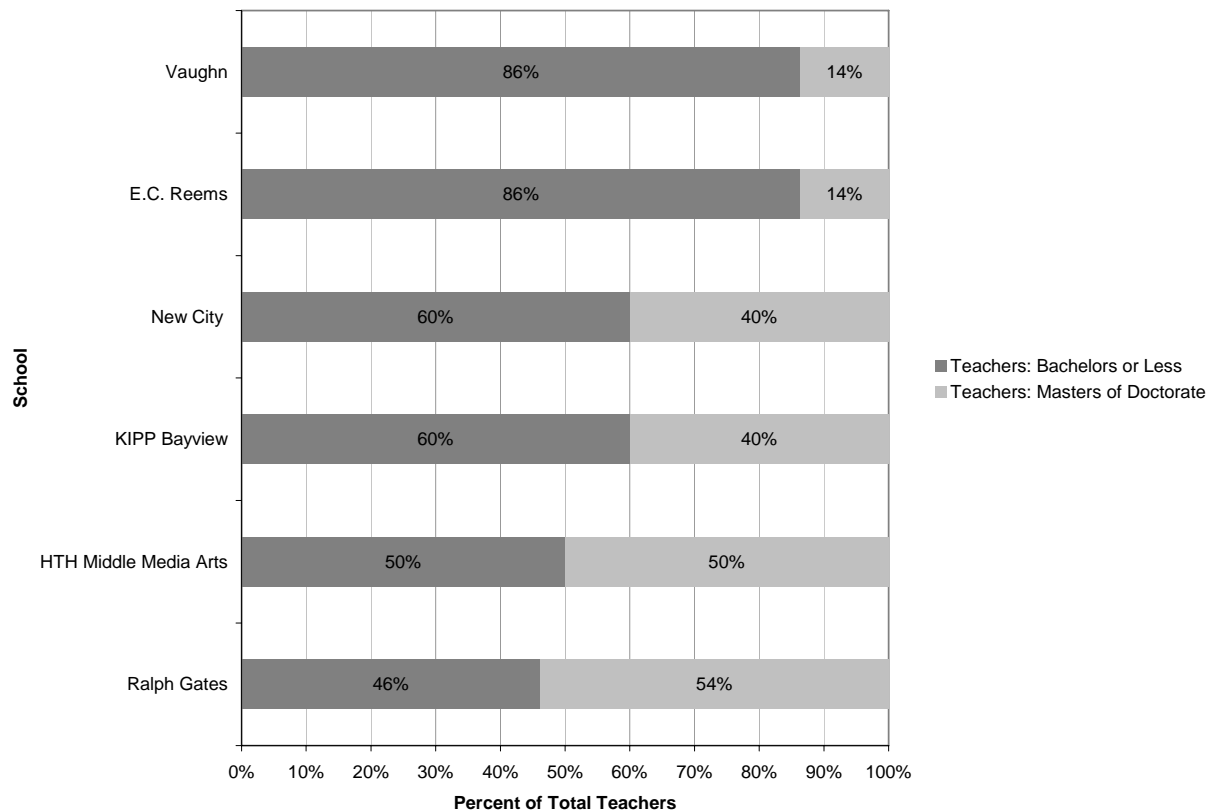
Exhibit 5.4. Administrator and Teacher Characteristics: Average Years of Experience, across Visited Charter Schools



Source: California Department of Education, 2004-05. In the case of HTH Middle Media Arts, data was collected in our site visitation.

Exhibit 5.5 shows the percentages of teachers with a bachelor’s degree or less and with a masters or doctorate degree. Vaughn and E.C. Reems have relatively few teachers with advanced degrees, while HTH Middle Media Arts and Ralph Gates have more. All of the schools except Vaughn and E.C. Reems have higher percentages of teachers with advanced degrees than the statewide average of 30.6 percent.

Exhibit 5.5. Teacher Characteristics: Degree Level, across Visited Charter Schools

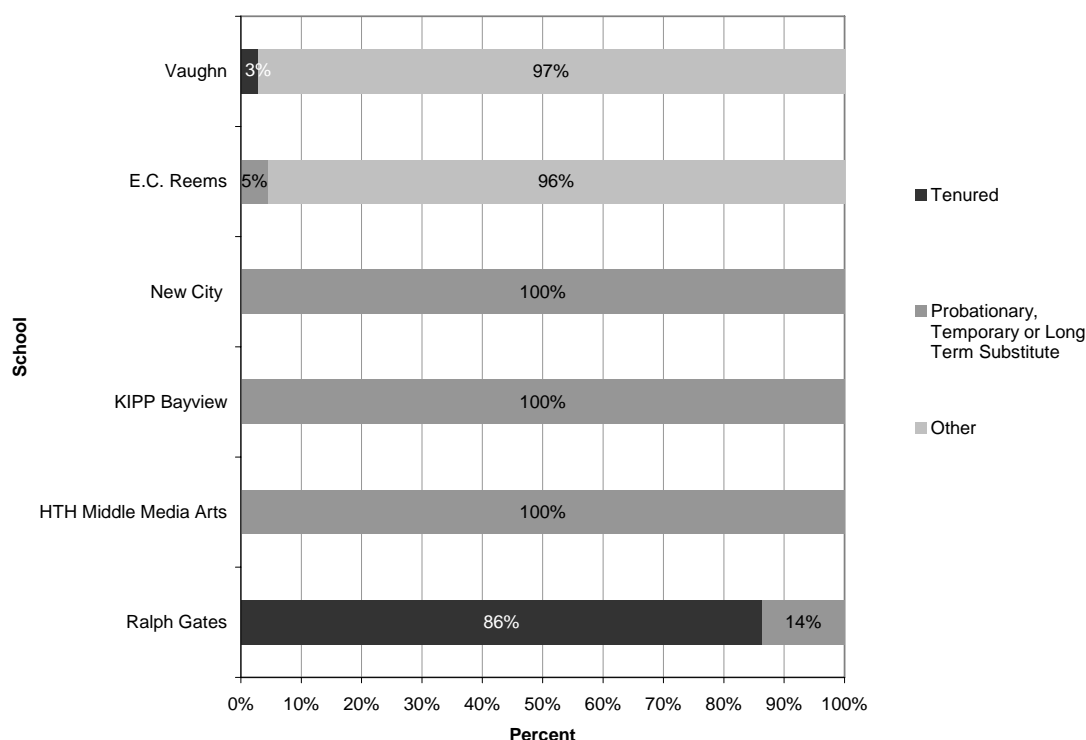


Source: California Department of Education, 2004-05.

Exhibit 5.6 displays the distribution of teachers by status, defined by CBEDS across four categories: tenured, probationary, temporary or long-term substitute, and other. Across these schools, there appears to be a great deal of variation across schools. Three of the schools (New City, KIPP, and HTH Middle Media Arts) have staff that are all designated as probationary, temporary or long-term substitutes. As mentioned, these schools have a high degree of independence; their teachers are not unionized, and only have 1-year contracts. Vaughn and E.C. Reems look quite different in that they are composed primarily of teachers without a formal status label as defined by CBEDS information. However, in fact, during our site visits to these schools we learned that teachers here are also in 1-year contracts and not unionized. Thus, although they appear different in the exhibit below, staff across these five more independent charters appear to be similar in regard to this variable.

The dependent charter, Gates, is actually quite different. Gates resembles regular public schools, where the average distribution of teachers across the categories is 69 percent tenured, 22 percent probationary, temporary or long-term substitute, and 9 percent other. As we learned from our site visit, all teachers at this school are part of the district union – a condition that teachers explicitly requested when the school converted to a charter.

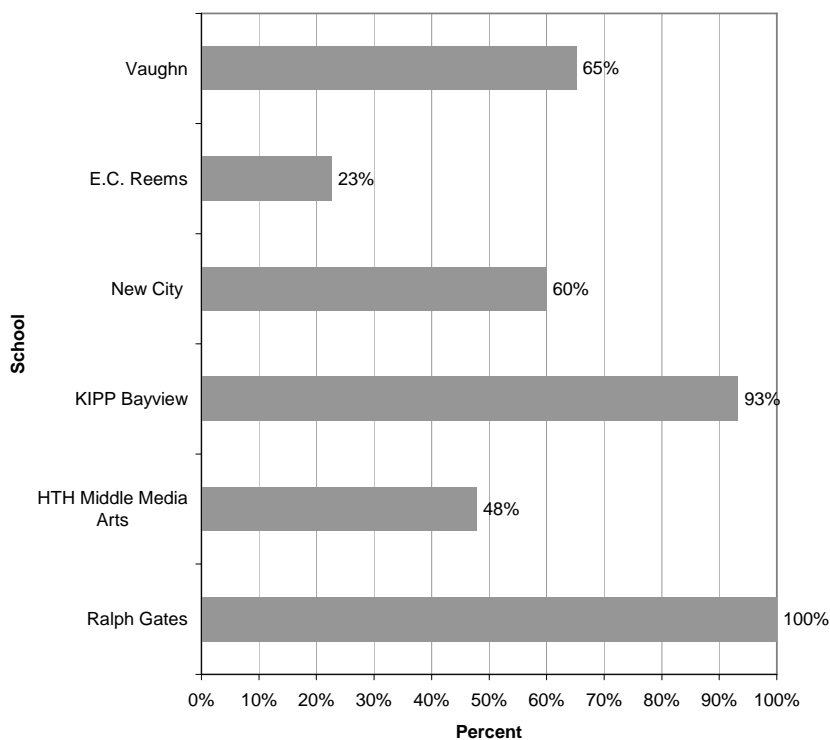
Exhibit 5.6. Teacher Characteristics: Status across Visited Charter Schools



Source: California Department of Education, 2004-05. In the case of HTH Middle Media Arts, data was collected in our site visitation.

Exhibit 5.7 shows that there is substantial variation in the percentage of fully credentialed teachers across the charter schools that were visited. The average percentage in regular public schools is 95.2 percent. Ralph Gates and KIPP, with 100 and 93 percent of their teachers with full credentials, respectively, are nearest to this average. In contrast, E.C. Reems is 72 percentage points below the average, and HTH Middle Media Arts is 47 percentage points below. As will be mentioned in more detail below, the California Commission on Teacher Credentialing has approved the High Tech High organization to provide its own credentialing program. Teachers at the school are working towards their certification while teaching at the school.

Exhibit 5.7. Teacher Characteristics: Credentials, across Visited Charter Schools



Source: California Department of Education, 2004-05. In the case of HTH Middle Media Arts, data was collected in our site visitation.

Summary

More than anything, these data seem to corroborate the difficulties associated with trying to identify outlier schools in regard to resource allocation, than revealing any major resource differences. While most of these schools felt and looked quite different than regular public schools, for the most part these differences are not well reflected in these data.

There are some differences. The number of teachers per 100 pupils was considerably above the state average for two of the schools, but the rest are not much different than other schools. All of these schools except one have a lower administrator per pupil ratio than the average high

independence charter, but administrators that are higher than the state average overall. Four charter schools have a higher-than-state-average percentage of teachers holding a master's or doctorate degree.

The most telling variables in regard to observed differences appear to be the last two. First, there is a great deal of variation among these schools in the percentage of teachers fully credentialed. While two of the visited schools are above the state average, while the others are fairly well below. It might be concluded from this that these schools were unable to attract credentialed teachers. While this might be the case in some of these schools, High Tech Middle Media Arts school for example, was clear that they were primarily looking for other things in their teachers. They said they were primarily seeking creativity, energy, the demonstrated ability to lead a class, and passion in regard to learning and in regard to some particular area of learning.

Perhaps the most striking difference, however, are in regard to tenure. As shown, all of the highly independent charter schools show almost no teachers holding tenure. This is dramatically different than what is seen across regular public schools across the state where nearly 70 percent of all teachers are tenured. As mentioned, teachers at all five of the high independence charters shown above were on year to year contracts. This of course gives the schools nearly complete control to hire and replace staff as they deem necessary and appropriate in meeting their educational objectives. None of these schools had teacher unions. These very differing circumstances around job security seemed to affect quite a bit of what was observed to be different at these sites, as described below.

SECTION II: DESCRIPTIVE SUMMARIES FOR EACH CASE STUDY

In this section we delve into the detailed qualitative information gathered through our site visits. We provide summary descriptions for each charter school we visited and describe some of the ways in which these schools use their greater degree of flexibility and independence. The overarching goal is to disentangle what unique attributes these schools have, and to look for substantial differences in the way they organize themselves and choose to provide educational services. The comprehensive summary descriptions are organized around the following key themes:

- **School characteristics:** demographic characteristics and API scores for the 2004-05 school year.
- **School governance:** type of organizational structure at the school.
- **Use of resources and unique characteristics:** including instructional model, instructional time, class and school size, personnel attributes (including teacher morale and turnover, salaries, and professional development). In addition, a facilities, special education, and parental involvement are also described.

High Tech Middle Media Arts

OVERVIEW

High Tech Middle Media Arts (HTMMA) in San Diego was started in fall 2005 to serve students in sixth through eighth grade. It is directly funded (i.e., the school receives its funds directly rather than through the district) and is part of the High Tech High non-profit charter management organization of seven schools (six of which are on the same San Diego campus). The school is built around the concept of a personalized, hands-on, project-based learning environment and features a focus on the media arts.

HTMMA enrolled 303 students in 2005-06 (its first year of operation). Demand for admission to the school is extremely high; the school received over 1,234 applications for the approximately 156 openings available for 2006-07. As a charter school, HTMMA is required to replicate the demographic distribution of the larger district from its pool of applicants. The school tries to address this by using a zip code-based lottery. Despite this, there were significant demographic differences between the school and the San Diego Unified School District (see the exhibit below) in the school's first year of operation. Individuals at the school expressed awareness of these differences and acknowledged that they needed to be addressed as the school develops.

The recently available 2006 API score is the first academic performance index available for this school given that 2005-06 was its first year of operation. Their level of performance was 865, placing the school above the API score target for the year 2013. Other schools in the High Tech High network score very high as well. The elementary school is above 900, and the other middle and high schools are all above 800.

Student Characteristics and API Results, 2005-06

	High Tech Middle Media Arts	San Diego Unified School District
White	47%	26%
Hispanic	23%	44%
African-American	13%	14%
English learner	10%	28%
Free and reduced price lunch	19%	54% ^(a)
API Score	865	728 ^(a)

Source: The school-level information was self-reported by HTMMA and corresponds to the school year 2005-06. The district-level information was calculated using the California Department of Education, CBEDS data for 2005-06.

^(a) This information corresponds to the school year 2004-05; more recent information was not available.

One of the ways HTMMA appears most different from a regular public school is in how classes are taught. Students are encouraged to actively pursue their personal interests through hands-on projects. Teachers are required to design projects for their students that are engaging and instructional, and that have real-world relevance. Students then post their work in digital portfolios and have many opportunities to exhibit their work in school-based workshops and exhibitions.

SCHOOL GOVERNANCE

HTMMA is a school-level nonprofit corporation with 501(c)(3) status that operates independently from San Diego Unified School District and is under the administration of High Tech High non-profit charter management organization (CMO). This non-profit organization began in 2000 as a single charter high school by a coalition of educators and business people. Today it has seven start-up charter schools (four high schools, two middle schools, and one elementary school) serving approximately 2,500 students with 200 employees. This is the first charter organization that has its own teacher credentialing program (see below for a description of this program). In addition, the California State Board of Education awarded High Tech High the first California Statewide Benefit Charter, authorizing it to open ten additional public charter schools throughout the state without having to get permission from local school boards.

As a CMO, High Tech High provides an array of support and leadership to its schools. This support includes payroll services, legal services, purchasing, and building maintenance, as well as providing the program and curriculum design principles. However, a High Tech High administrator claims that the “the operational side is always respectful and aware that they are subservient to the instructional side.”

This CMO cites their motivation for growth as building a large enough base of students to be able to sustain CMO operations. Today the CMO itself has 20 employees, and according to the High Tech High chief operating officer, 8 to 5 percent of the per school revenues are used to cover the operation costs of the organization (depending on the school level). High Tech High CMO staff say it will ultimately need about 11 to 14 schools to fully support its operations.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

Instructional model

The roots of the High Tech High instructional program and curriculum lie in the work of Larry Rosenstock and colleagues in the New Urban High School Project (NUHS), an initiative of the U.S. Department of Education’s Office of Vocational and Adult Education from the period 1996-99. The goal was to investigate and assist six inner-city high schools that were using internships and other forms of field work. High Tech High design principles, which are on this earlier initiative, are: 1) personalization, 2) adult world connection, and 3) common intellectual mission.

As described by High Tech High representatives, their design principles permeate every aspect of High Tech High schools: small school size, the openness of the facilities, students’ advisory system, the emphasis on project-based learning and student exhibitions, internships in the community, and the provision of planning time for teacher teams during the work day.

At HTMMA standards are de-emphasized. There are no textbooks, and teachers have considerable autonomy. Each student has an advisor who monitors their academic and personal development. This hands-on style requires not only significant effort in planning lessons, but also collaboration among teachers. Teachers reported that a typical day is from 7 to 5 and that working until 7 in the evening and coming in on weekends was not uncommon. Teachers also reported that they have the resources they need to plan and implement their project-based

lessons. They are given \$3,000 a year to spend on classroom supplies with their teaching partner as they see fit.

Instructional time

HTMMA requires their students to receive more instructional time than required by the state. Students receive 65,190 instructional minutes per year, compared to the state requirements for middle schools of 54,000 minutes.

Class and school size

Small school size is one of the principles said to guide High Tech High schools. HTMMA serves 303 students from sixth to eighth grade, which contrasts with the average size of a middle school in California of 940 students. However, average class size appears slightly higher than in the surrounding district (San Diego Unified). HTMMA averages 25 students to 27 students in English and Math classes in the district.

Personnel

Leadership

Teachers at HTMMA are involved with high-level decisions about the school's operation and with day-to-day administrative functions. The principal explains it this way: "The school is run by teachers. My job is to facilitate...and support them in all the ways I can." As an example, teachers develop the agenda for and run staff meetings on a rotating schedule. Each teacher is also part of a "study group" that decides how different aspects of the school should be run and reports back to the larger staff meetings. They also do professional development work with their peers. In addition to this leadership, the school's teachers handle some of the more routine school functions that would normally be handled by administrative staff—such as drawing up a fire escape plan and planning exhibition nights. This level of involvement in all aspects of managing and operating the school creates additional work for the teachers. It also means that the administrative and support staff at the school can be smaller.

Teacher and administrator characteristics

Teachers at this school have an average level of teaching experience of 5 years. Half of the teachers hold a master's degree, and one out of five non-teaching positions is held by someone with a master's degree.

Teacher morale and turnover

While this model creates extra work for the teachers, the staff we interviewed and observed generally seemed to embrace the challenge. Despite receiving pay similar to that of teachers in the surrounding school district while having administrative and teaching responsibilities, and generally working longer hours, the majority of the teachers we spoke with seemed to have very high morale. They expressed feelings of empowerment rather than being overburdened by the additional work. It should also be noted, however, that the staff tended to be young, energetic, and fairly new to teaching, raising possible questions in regard to long term sustainability.

Hiring and firing practices

The hiring process at HTMMA is different from what is generally described for a traditional public school in many ways resembling that of a private firm. Candidates show up early in the morning, and over the course of the day are interviewed by teachers, students and the principal, and teach a demonstration lesson. The primary decision makers in the hiring process are the teachers. However, they take the students' perspective into account. Staff members mentioned that one teacher was not hired because the students attending the demonstration lesson gave negative feedback, even though the teachers and principal said they generally supported the candidate.

All teachers are on one-year contracts, meaning that there is no tenure or any kind of job security extending beyond that year. The school releases teachers who are not performing or who simply do not fit in, but school personnel explained that the school was careful to pre-screen, so that this was not a common occurrence. The principal makes this decision, but it is said to be largely driven by the students' relationship with the teacher. According to the CMO's chief operating officer, the fact that the teachers are not organized is a critical component of the system—being able to quickly hire and fire teachers without needing outside input or having to navigate complex bureaucratic channels is a fundamental, defining aspect of HTMMA. At the same time he points out that teacher removal is fairly rare. Given their very thorough selection procedures staff generally seem to know what they are entering into and generally fit in well.

Professional development

The California Commission on Teacher Credentialing has approved the CMO to provide its own credentialing program in mathematics, science, English, history/social studies, Spanish, Mandarin, and art through its Teacher Intern Program. In partnership with the University of San Diego, the intern program provides an equivalent of a 120-hour pre-service program and 600 hours of training and practice over a two-year training period. Interns earn full-time salaries and benefits as teachers while working toward their credentials. Teachers reported that they receive useful in-house professional development, and that they are given \$500 a year to attend conferences or workshops.

Salaries

Based on the information collected in our site visit, teachers at this school are offered competitive salaries aligned with what teachers receive in the San Diego Unified School District. They do not receive incentives or bonuses based on performance.

Facilities

High Tech High facilities are developed and owned by a non-profit organization supporting the development of High Tech High schools. The first school opened in 2000 in a 38,500 square foot facility at a former naval training center in San Diego. This facility has been renovated and expanded to house five additional schools, creating a "village" of three high schools, two middle schools, and an elementary school. The original building was paid for through an anonymous donation. The new buildings are financed through a bond and the debt costs are shared among all schools.

Schools in this “village” look more like a high-tech workplace than a traditional school. Their design is aligned with their instructional model. Shared teacher offices that promote collaboration are adjacent to the classrooms (or “seminars” as they are called in the school) in which they teach. These classrooms have movable walls that allow changing the room configuration (e.g., to open it up to create one big room). These are spaces not generally found in traditional schools. On the other hand, the school lacks a gym or playing fields. The High Tech High chief operating officer mentioned that even though their facilities support their basic needs, they are not fully adequate in this sense.

Fundraising

Last school year they raised about \$200K across all High Tech High schools from parents. However by design they avoid supporting the operation of their existing schools through fundraising. The major role of fundraising is to support capital expenses. While fundraising is currently being used to also support the CMO, the High Tech High chief operating officer mentioned that as soon as they have about 11-14 schools, they will not need additional revenues to support these operations.

Special Education

HTMMA is among the 20 percent of California’s charter schools functioning as an LEA for special education purposes²⁹. The school has benefited from this by being able to choose its SELPA. The school switched to the Desert Mountain SELPA when it was unhappy with the value it was getting from its former SELPA, and officials report that they now receive a better level of service at lower cost.

Parental Involvement

HTMMA benefits from the fact that it has been actively selected by students and parents. While this likely results in more motivated families, the parents also seem to respond to the level of effort put in by the teachers and to the positive learning environment. The school nurtures its relationship with parents by having students’ advisors (teachers) visit the parents at their home, by making grades available for viewing online, and by being responsive to parents’ feedback. One parent said, “My number one love of this school is the energy, the enthusiasm, the passion, the accessibility, the integrity of the teachers.” Other parents in the focus group for this study were similarly vocal in their praise.

²⁹ Based on survey data provided by EdSource.

Vaughn Next Century Learning

OVERVIEW

Vaughn Next Century Learning has been in existence since 1950. In 1993 the school converted to a charter. Located in high-poverty, high-crime Pacoima in the San Fernando Valley, 15 years ago it was one of the worst schools in the Los Angeles Unified School District. Today, Vaughn has received the California Distinguished Schools Award and the National Blue Ribbon Schools Award.

Vaughn is a directly funded charter school (i.e., the school receives its funds directly rather than through the district), and is not part of a charter school management network. The principal's willingness to push the charter laws to their limit and make full use of all funding opportunities has allowed the school to provide services not only to the students, but to the whole community.

The school attempts to integrate into the community as much as possible, enrolling nearby students, offering a wide range of community support services, and enlisting community help when possible. As an example, the school has a health clinic on site that has a doctor and nurses on staff, and that offers medical services not only to students and their families, but also to students attending other LAUSD traditional schools. The school also has programs for incarcerated youth re-entry and gang prevention, and offers construction job training. Vaughn's principal also started a toddler and preschool program to better prepare children to attend the school.

Vaughn had 1,702 students in 2005-06 (including its pre-kindergarten students). The school currently serves pre-kindergarten through ninth grade, with the intention of adding an additional grade per year up to grade 12. The API base score in 2005 was 700, and has steadily increased from 443 in 1999. All of the school's students are eligible for free or reduced price lunch, and almost all of the students are Hispanic (see the table below for more information about student characteristics).

Student Characteristics and API Results, 2004-05

	Vaughn Next Century Learning	Los Angeles Unified School District
White	0.3%	9%
Hispanic	98%	73%
African-American	2%	12%
English learner	56%	43%
Free and reduced price lunch	100%	75%
API Score	700	649

Source: California Department of Education, CBEDS data of 2004-05 and 2005 API base files.

SCHOOL GOVERNANCE

Vaughn's principal is clearly a driving force behind the school. She led the school when it was a regular public school and opted to convert it to a charter when she became unhappy with the support she was receiving from the district. She states that she mortgaged her own house to start the school. There is no charter maintenance organization or other body that provides oversight or support, and the school is reportedly almost completely independent from the school district. Although the school is a large one, it is divided into smaller grade-level schools, each with its own administrative unit and decision making power. In addition, the principal employs nine administrators to help her run the school—all of whom have been teachers at the school and hold administrative credentials.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

Vaughn appears to be different from a typical public school in how it is operated. The funding that the school receives almost all goes directly to running the school, rather than being partially diverted to cover district or charter maintenance organization operating costs. The principal states that the school has “complete control” over 92 to 95 percent of its funds, compared to the only 2 to 3 percent she felt she directly controlled when she was a principal within the district. The principal reports being focused on using resources carefully and efficiently, and that she is aggressive about pursuing all available funding. She states that she is especially motivated to track down these funding opportunities (e.g., federal and state categorical funds) because the school gets the full amount of the funding, rather than receiving a pro-rated amount or pre-assigned staff as she would receive if the school were part of the district.

The principal also cited the benefits of being able to structure the school's administration in a way that was best for the school, rather than using a structure dictated by a district. She stated that if Vaughn were still a part of the district, it would likely have one assistant principal; instead, she has ten. Vaughn has also installed an electronic lunch program tracking system that the principal says takes only a few minutes to use, versus the system used by LAUSD which she asserts is much more costly to run.

Instructional model

Vaughn's instructional program is built on the six R's: Rigorous standards, Results-focused, Resource deployment, Resiliency, Relationships, and Responsibilities. The principal and teachers think that their success is a result of a combination of factors: their flexibility, standard-focused instruction, teacher collaboration, and performance-based salaries.

The school's teachers are given latitude in their lesson plans, although the overall approach across classrooms is not strikingly different from what is found across successful schools (e.g., standards-based instruction and teacher collaboration). One teacher appreciated the autonomy, stating, “I've written every single lesson. Those are my ideas. That gives me ownership over my classroom...In a school like this you feel more empowered.” One teacher reported initially needing 11 or 12 hours a day to do his job. He said that he still spends two extra hours at home preparing lessons. The school offers a wide array of instructional offerings, including four years of Chinese language instruction.

To bolster discipline, “demerit” points are issued for things such as misbehavior or missing homework, and too many demerit points will prevent students from being able to participate in reward activities and trips. Students we interviewed were mostly positive about the school, though there was some resentment about the high level of achievement and the behavior standards they felt the school expected of them.

Instructional time

Vaughn requires their students to receive more instructional time than what is required by the state. Students in grades 1 to 3 receive 5,600 more minutes of instruction a year. Grades 4 to 8 receive 6,000 more minutes, and 9th graders receive 7,120 more minutes a year.³⁰

Class and school size

The school is large, with 1,702 students. It has class sizes for kindergarten through third grade that are slightly lower than the statewide average. Kindergarten classes average 20.1 students, and grades 1 through 3 have 19.5 students. Vaughn’s grade 4 and 5 classes is at roughly two-thirds the state average. Vaughn has an average of 21.5 students per class in grades 4 and 5, compared 30.4 students statewide. The school’s middle school caseloads average 72.3 students, about half as many as the statewide average. Caseloads for elective classes have 143.8 students on average, which is also lower than the state average.

Personnel

Leadership

Much of the school’s initial leadership came from the founder and current principal. She still clearly plays an active role in all aspects of running the school from teacher hiring decisions to pursuing funding sources. In particular, she seems to play a strong role in finding ways to bring in more funding or to use existing resources more efficiently. She appears to be a role model to the teachers and she interacts closely with people, greeting and talking to students and parents in hallways.

At the same time, leadership of the school has been clearly diffused. In addition to the ten assistant principal positions mentioned above, Vaughn has three governance committees with full decision-making authority in the areas of curriculum & instruction, business & operations, and forming partnerships. These committees are equally comprised of teachers and parents, with all teachers serving on one of these three committees. The school is also broken down into smaller grade-level academies, each with its own administrator, budget, and decision-making power.

Teacher and administrator characteristics

Vaughn’s teachers have education levels that are very similar to the average for California’s regular public schools. However, the school’s teachers have less experience compared with traditional public schools, at an average of 4.8 years in education. Vaughn’s administrators’ levels of education and experience are similar to those for California overall.

³⁰ Instructional time information was obtained from EdSource survey data.

Teacher morale and turnover

There appears to be very little teacher turnover and relatively high morale. One teacher said she came to Vaughn because “it was the only school where I walked in the teachers’ lounge and they were smiling.” However, some interviewed teachers expressed concern about the lack of job security. In particular, some of the teachers who had taught at Vaughn for some time seemed as if they would have liked more recognition for the time they had put into the school.

Hiring and firing practices

Teachers at Vaughn are on year-to-year contracts, with no union and no job security or tenure. The school uses a system called PARS (peer assistance review system). Administrators and peers judge the teacher’s performance two times a year, and teachers score themselves as well. This performance review process is the basis for determining whether a teacher will receive a bonus or will even be asked to return the next year. Parents are given a say in the hiring process through committees.

Salaries

Based on teacher interviews, their perception is that their salaries are lower than they are within LAUSD. There is reportedly no salary increase for seniority, but there is a three-level bonus system based on the teacher’s PARS review. This bonus can be as high as \$14,000. Coupled with a longer school year, this means that a teacher who gets good reviews can make much more than they would at LAUSD. All school staff, including administrators, nurses, and counselors, participate in the performance-based pay system.

Facilities

The original typical-looking school building at Vaughn is still part of the school. The principal has managed to gradually acquire houses around the school, and has used these properties to expand. The buildings that have since been added have been designed with the help of architects who have contributed their time, and many of the newer buildings are attractive and modern. The school’s facilities are atypical in that they have a large preschool and toddler center and a health clinic on site. The principal has gone beyond the school facilities and has helped to rebuild and enhance the streets around the school.

Fundraising

Fundraising does not appear to be a major source of funding for Vaughn.

Special Education

Vaughn reports that while they receive some special education services through their SELPA (e.g., for deaf and blind students), they provide most special education services themselves.

Parental Involvement

Parents at Vaughn are expected to volunteer 30 hours a year. These hours can be at the school, in the community, or on a family activity. For example, parents can get credit for taking their child to the zoo or for helping out at lunch time. The school also trades goods for hours—if a parent cannot afford a uniform, the school will provide it but requires the parent to work more hours. As mentioned previously, parents also participate in committees that actively govern the school.

The New City School

OVERVIEW

The New City School, located in downtown Long Beach, opened in 2000 as a start-up charter school serving 80 students in kindergarten through grade 3. Today, the school has 191 students in kindergarten through eighth grade. The school's mission is for students to become self-motivated, competent, and lifelong learners. In addition, the school has a strong emphasis on bilingual education, with all students expected to be completely fluent in English and Spanish by the end of eighth grade. The school's instructional approach focuses on self-motivated exploration and discovery rather than lectures. There were 190 students enrolled in 2005-06, with a waiting list that was also roughly 200 according to the school's principal. The principal also stated that parents are asking the school to extend into the high school grades.

Student Characteristics and API Results, 2004-05

	New City School	Long Beach Unified School District
White	19%	17%
Hispanic	68%	50%
African-American	8%	18%
English learner	40%	26%
Free and reduced price lunch	68%	66%
API Score	684	713

Source: California Department of Education, CBEDS data of 2004-05 and 2005 API base files.

The school's leaders state that while they strive for the school to reflect the overall population of the community they serve (Long Beach), they may not fully achieve this due to the dual language focus of the school. While they use a lottery to determine who is accepted, it is within the general objective of accepting 50 percent Spanish speakers and 50 percent English speakers. They accomplish this by having the same number of names drawn from each group. Also, an attempt is made to accept younger students because it is easier to integrate them into the school's dual language acquisition model and overall school's mission in earlier grades.

SCHOOL GOVERNANCE

The New City School is largely independent from the Long Beach Unified School District, and is not part of a charter maintenance organization (CMO). School leaders mentioned that being outside of the district makes a major difference in how the school operates, and expressed an appreciation for the accompanying freedom and lack of bureaucracy.

While The New City School is not part of a CMO, the school's leadership is in the process of creating a plan to open two to five more schools. The hope is to create enough schools to generate sufficient students to support a New City high school.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

New City School appears to heavily focus its resources on instruction. Both of the school's co-directors also teach, although one of them is going to step down from teaching in 2006-07 to focus more on administration. The current administrative allocation for the school is approximately .5 full-time equivalents (FTE) for leadership and 1 FTE for administrative support. They say this limited administrative allocation allows greater focus on instruction through small class sizes through grade 8, the presence of teaching assistants in all classes, and weekly full-day field trips for all students.

Instructional model

They describe their instructional model as enhanced by the arts, technology, and the natural environment, with emphasis on students' autonomy and critical thinking. As mentioned previously, the school is bilingual, with all students expected to master both languages by the end of eighth grade. The instructional model is constructivist, meaning that the learning is student initiated and directed, rather than being dictated by a teacher. The stated goal is "intellectual and moral autonomy," which a co-director described as being achieved through a lack of reward/punishment and grading (providing intellectual autonomy) and an emphasis on reasoning about right and wrong (moral autonomy). Creativity and discovery are encouraged, and there is little emphasis on lectures, standards, and testing. Students are strongly encouraged to think for themselves and make their own decisions. Behavior issues appear to be addressed in a cooperative, discussion-based way. There is a very close relationship between teachers and students. Students address teachers by their first name, and the teachers visit the students' homes.

While New City started with almost no focus on testing, pressure to raise test scores caused some test preparation be added to the curriculum. In 2004-05, the school increased its API base score by over 100 points.

The school does not rely on standard textbooks. Students can choose from 14 electives, ranging from computer building to yoga and gardening, that are taught in the student's second language. The school is organized into three grade-range groups: kindergarten through grade 3, grades 3 through 5, and grades 6 through 8. School leaders explained that these groupings help motivate the younger students in each group to perform at their highest level.

Instructional time

New City offers more instructional time than required by the state during the course of a school year across all of its grades. There are 17,100 extra minutes of instruction for first and second grade, 25,200 for grade 3, and 21,600 for grades 4 through 7.³¹

Class and school size

Classes are no larger than 20 students, all the way through eighth grade. This facilitates the school's hands-on approach to learning. Teachers teach in teams, and there are instructional assistants in all classes and on the weekly field trips. The school has a total of 190 students.

³¹ These data come from EdSource survey data.

Personnel

Leadership

The co-directors are clearly the primary decision-makers, and are also the people who originally started the school. At the same time, the teachers are also expected to provide leadership. There is also a board composed of the co-directors, teachers, parents, and outside members of the community. Interviewed parents and students also said they had input into governance decisions for the school.

Teacher and administrator characteristics

New City's teachers' levels of education are roughly the same as the statewide average. However, as is the case in Vaughn and other charters we visited, the teachers have far less experience at an average of 5.8 years of experience working in education. The school's administrators have slightly less education and less experience than California as a whole.

Teacher morale and turnover

Teacher turnover is low and there is a community environment among teachers. Some teachers voiced concerns about the long hours spent at the school—it appeared that 10-to-12-hour days were not uncommon. However, there was some sense that there was a lot of work because of the start-up nature of the school, and that the school would run more efficiently over time.

Hiring and firing practices

New City has total control over who it hires. The teachers are not unionized and do not have tenure. One of the co-directors, who had been a union representative at a prior school, stated that he would be very disappointed if his teachers felt they needed union representation to be able to express their views at the school.

Teachers are hired “at will,” meaning that they can be let go or can quit with two weeks notice. However, the school appears to put a lot of effort into only hiring teachers who are credentialed, are bilingual, and are experienced with and supportive of the school's instructional approach (constructivism). The elaborate hiring process includes a demonstration lesson, and student acceptance of the teacher is stated to be an important part of the decision to hire or not. According to school representatives, they work closely with teachers who are not meeting their standards, and go through many steps before a teacher is asked to leave.

Professional development

The teachers receive two weeks of professional development in the summer. Some teachers thought this was most useful for newer teachers, while others thought everyone benefited in terms of morale and team-building.

Salaries

Teachers at New City are reported to start at the same salary that they would at LBUSD, based on experience and education, with future raises being performance-based. Teachers are rated on a four-point scale, and raises range from 1.75 percent to 5 percent, depending on the rating. One of the co-directors said that teachers end up making about the same as they would in the district, but that more is expected of them.

Facilities

The school's building was originally a clinic. Through a loan from the district, they were able to completely refurbish the space. One of the co-directors said that the freedom they had from education code regulations as a charter school had been very helpful in that they only had to deal with city regulations in converting this space for use as a school.

The facilities are well kept and are creatively decorated with student artwork. There is also an extensive outdoor garden that is mostly maintained by students; however, they are cramped. For example, the directors do not have proper offices. School officials mentioned that they attempted to acquire a larger facility through Proposition 39 multiple times, but each time the new space had shortcomings that they were unwilling to accept. They stressed the importance of being located in their current neighborhood in order to attract the Latino students in the local community and make it easy for them to attend the school, stating that inner-city families had less ability to provide their own transportation.

Fundraising

The school seems to put a fair amount of effort into fundraising. School representatives reported bringing in about \$25,000 fundraising a year, and noted that as the school is becoming better known its fundraising potential is increasing. Fundraising activities include dinners and online auctions of students' art.

Special Education

New City School receives special education services from their local SELPA. New City has five students with IEPs. The school reports that the district has suggested transferring those students elsewhere, but that the parents do not want this. One student with mental retardation who needed a one-on-one program was apparently recently placed in another school better able to accommodate his needs.

Parental Involvement

The school appears to make concerted efforts to include parents and the community in their children's education. Teachers make visits to students' homes, and parents are invited to participate in teacher candidate interviews and observe candidates' sample lessons. Also, students are not allowed to leave school at the end of the day without a parent or other designated individual picking them up. Child care is available until 5 pm.

KIPP Bayview Academy

OVERVIEW

The KIPP Bayview Academy opened in the summer of 2003 in San Francisco's Bayview-Hunter's Point community. The school is part of the KIPP (Knowledge Is Power Program) network of public schools. At the start of the 2006 school year, there were 52 KIPP schools in 16 states and Washington, DC. The school has a strong focus on preparing students for college and requires students and parents to sign commitment documents. It served grades 5 through 7 and had an enrollment of 210 students in 2005-06.

Bayview aggressively recruits African-American students from the surrounding area for its program, handing out fliers at grocery stores and encouraging current students to recruit their friends. The student population was 80 percent African-American in 2005-06, compared to 14 percent for the San Francisco Unified School District (see table below). The intention is to recruit students who are chronically underserved and put them on a track that will result in attending college. Classroom observations suggested a challenging student population. The principal stated that incoming students typically enter the school performing two to three years below their grade level.

Student Characteristics and API Results, 2004-05

	KIPP Bayview Academy	San Francisco Unified School District
White	1%	9%
Hispanic	3%	22%
African-American	80%	14%
English learner	3%	29%
Free and reduced price lunch	78%	53%
API Score	648	745

Source: California Department of Education, CBEDS data of 2004-05 and 2005 API base files.

SCHOOL GOVERNANCE

KIPP Bayview Academy is part of the KIPP network and has no relationship with the school district other than for special education. Founded by Mike Feinberg and Dave Levin in 1994 in Houston, Texas, KIPP outlines a core set of "operating principles" for its schools that it refers to as the "Five Pillars." These encompass high expectations for students, commitment from students and parents, longer school days, strong school principal leadership, and a focus on academic achievement through performance on standardized tests and "other objective measures."

The non-profit KIPP Foundation was established in 2000 to recruit, train and support educators as they open and operate locally run KIPP schools. The KIPP Foundation is not a full-fledged charter management organization. It provides assistance in getting new schools started; then the model calls for a great deal of autonomy and local control once the school is established. An

example of the assistance provided is KIPP's facilities team, which helps new school leaders find and develop appropriate school sites.

KIPP Bayview Academy's principal, like other KIPP principals, was trained by the Foundation for a year on how to successfully lead a KIPP school. Today, she reports that this school is largely autonomous. The Foundation continues to provide support through such activities as organizing (and subsidizing) teacher training retreats and an annual national professional development conference.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

Instructional model

One of the most noticeable aspects of the instructional model at KIPP Bayview is its emphasis on longer school days and students going to college. This goal seems to be integral to much of what the school does, and references to college and specific universities are woven into things such as classroom names.

One of the KIPP's core principles is commitment from students and their parents. KIPP Bayview and other KIPP schools require students, parents, and teachers to sign a learning pledge committing to the school's rigorous program.

Teachers are granted some freedom in their lesson plans and are allowed to use materials of their choosing. However, students are expected to do well on standardized tests and California's standards are expected to be covered.

Instructional time

One of the unique features of KIPP Bayview Academy is its long school day. Students are typically in the school from 7:45 a.m. until 5:00 p.m. They attend classes every other Saturday, and the school year is also longer. This works out to 23,910 minutes more instructional time in a school year than required by the state.³² This is an integral part of the KIPP model; "more time" is one of the organization's five core principles. The intention, according to KIPP, is to provide students "more time in the classroom to acquire the academic knowledge and skills that will prepare them for competitive high schools and colleges, as well as more opportunities to engage in diverse extracurricular experiences." KIPP Bayview requires parents to make a phone available to their children to call teachers for help with homework and teachers are required to be reachable by cell phone until 9:00 p.m.

Class and school size

With just over 200 students in three grades during the 2005-06 school year, the school is smaller than a regular public school, although class sizes are the same as for the state's regular public schools. The school will add a grade in the 2006-07 school year, becoming a fifth-to-eighth grade middle school. Faculty appear to know the students well and have strong relationships with

³² These data come from EdSource survey data.

them. The principal knows most of the students by name. We observed that all students and teachers meet every day in morning meetings to discuss news and issues.

Personnel

Leadership

The KIPP Bayview Academy principal is a strong leader and makes major instructional and operational decisions independent of the KIPP Foundation. The school also has a community outreach coordinator and a development director. Both help to provide the necessary resources to support the students and teachers at the school.

Teacher and administrator characteristics

Ninety-three percent of KIPP Bayview's teachers have a full teaching credential, which is higher than what is observed in other charter schools (76 percent) and similar to traditional public schools (95 percent). At KIPP Bayview, 40 percent of the teachers hold a masters or doctoral degree, which is higher than the percentage of teachers with masters or doctoral degrees in charters and traditional public schools (29 percent and 31 percent, respectively). Teachers have, on average, six years of experience in the field of education, which is similar to what is observed across all charter schools in the state, and lower than the average for traditional public schools (13 years).

Teacher morale and turnover

The teachers at the school were clearly expected to be very committed to the program and their jobs. Teachers reported that putting in days of 10 to 12 hours was common. In addition to this, all teachers are reachable by cell phone until 9:00 p.m. each night. We saw some signs of turnover. Some teachers mentioned plans to leave the school to pursue graduate studies or to start their own KIPP school. One teacher commented at the teacher focus group that the school and teaching staff were aware of the "sustainability" issue and that they were working to provide more support to teachers, especially new arrivals. The principal felt that teachers who participated in the professional development in the summer were more likely to stay at the school.

Hiring and firing practices

KIPP Bayview's principal has complete autonomy in hiring and firing teachers. One of KIPP's core principles is to give principals the authority to make staffing changes ("power to lead"). The teachers are not organized, there is no tenure, and the KIPP organization does not have to approve staffing decisions. The school's development director participates in hiring and recruitment efforts, and the school appears to put significant effort into recruiting highly qualified teachers.

Professional development

Teachers receive three weeks of professional development during the summer in addition to attending a week of professional development hosted by the KIPP Foundation. During the school year, each teacher attends a multi-day conference on his/her discipline, and attends the KIPP California retreat in October when all KIPP teachers in California meet to discuss teaching strategies and tactics. On-site professional development at KIPP Bayview centers on weekly

grade level meetings and grade level observations, as well as classroom management and use of internet applications. In addition, the principal conducts classroom observations, sharing the feedback with the observed teachers.

Salaries

All KIPP schools pay teachers 15 to 20 percent above the district salary schedule for working an extended day, week and year. The principal reported that teachers at KIPP Bayview make about 15 percent more than they would in the surrounding school district, and that there are performance-based bonuses up to 5 percent of the teachers' base salaries.

Facilities

The school rents its buildings from a church. San Francisco Unified School District officials offered KIPP Bayview a site through Proposition 39 in San Francisco's Noe Valley neighborhood, but the facility was located too far from the population they are trying to reach. There is a gymnasium on site and an outside area. The classrooms are fairly large and a science lab is being added. School representatives appreciated the fact that the current location is in an underserved area, but one that is relatively safe.

Fundraising

Fundraising appeared to play a significant role at KIPP Bayview. The school has a full-time development coordinator with an MBA and a consulting background whose primary responsibility is to seek out grants and foundation funding. School representatives reported that 20 percent of the school's budget is from fundraising efforts. Parents do not seem to be heavily involved with these efforts. The KIPP Foundation distributes grant money it receives to its schools in addition to the grants that KIPP Bayview pursues on its own. There is also the belief that the school needs fundraising to support its extended day and school year, and this is a need that is not considered temporary—the school has a staff member whose job is devoted to fundraising for the school.

Parental Involvement

The school requires parents to support their children. Parents must sign a "commitment to excellence" pledge at the beginning of the year, and according to the principal, parents must review and sign their student's agenda every night. In addition, parents are required to make a phone available should their child need to call a teacher for help with homework.

E. C. Reems Academy of Arts and Technology

OVERVIEW

E.C. Reems Academy of Arts and Technology began as a start-up charter school in Oakland in 1999 under the management of the Schools Future Research Foundation. However, due to severe personnel issues, the school closed that same year. The current principal arrived in 2000 and re-opened the school. The school is indirectly funded, meaning that its funding comes through the local district. In 2000, Reems stopped being part of the foundation.

Reems serves students in kindergarten through eighth grade. It enrolls 360 students, and the principal states that there is an approximately 120-student waiting list. Admission is determined by lottery, and most of the students are from the surrounding area—characterized by gangs and shootings. Most students appear to be at the school either because their parents sought a better alternative for their child or because they were failing or expelled from another school. The school's API score for 2005 was 634, a 145-point total increase over past two years.

Student Characteristics and API Results, 2004-05

	E. C. Reems	Oakland Unified School District
White	0%	6%
Hispanic	22%	34%
African-American	73%	41%
English learner	24%	29%
Free and reduced price lunch	67%	63%
API Score	634	632

Source: California Department of Education, CBEDS data of 2004-05 and 2005 API base files.

SCHOOL GOVERNANCE

Reems was originally part of a larger charter school organization called School Future Research Foundation. In 2002 the school severed ties with the network and became a free-standing non-profit organization that now receives its funding through the district. Aside from the fiscal arrangement and special education services, Reems does not have a strong relationship with the district. The district does, however, assume responsibility for attendance and student performance with the school providing monthly reports to the district.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

When the school principal re-opened the school, she found not only management and personnel issues, but also that student assessment scores were not a reflection of the level of student academic attainment. She felt that she needed to solve the student behavioral problems before tackling the academic performance issue. Through individual meetings with parents and students, the help of a full time counselor, and the institution of a behavioral program at the

school supported by psychotherapists, she was able to start improving the discipline and behavioral problems.

As mentioned previously, now that the school has been able to turn to academic performance, the API score has increased considerably. It was 634 in 2005, representing a 145-point two year gain. The principal added that she has been able to use her freedom to hire and fire teachers based on performance (because the school is not unionized), and she has been able to change and implement new curriculum packages and instructional models at the school. However, teachers we spoke with at Reems emphasized a lack of resources compared to the public schools they had worked at previously. Several teachers spoke of buying supplemental instructional materials with their own money. At the same time, administrators say they try to maximize the instructional orientation of the resources they have through a lean administration, outsourcing of many clerical and data entry tasks, and limited pupil support staff.

Instructional model

The emphasis at E. C. Reems is on standards. Teachers report having considerable independence and the latitude to be creative, but the instruction must be focused on the standards. Teachers reported that the school's "arts" name does not manifest itself in a strong focus. However, the principal mentioned that technology is integrated into the core curriculum. School respondents report using differentiated instruction in response to the varying background and learning needs of the students.

As part of the High Priority School Grant Program, Reems hired a consultant to help select the curriculum packages at the school. She chose Open Court, with supplemental materials for core subjects. Thanks to a donation she was able to open a computer room where students can learn practical applications like Microsoft Office. Students are in self-contained classrooms through eighth grade. A teacher mentioned that this helps to maintain order and discipline at the school by avoiding having students moving around the school for departmentalized classes. The school also has a sophisticated analytical tool in place to monitor performance with individual students tracked over time as they move through the grades. This helps the principal and teachers to address students' specific needs.

Instructional time

The instructional day at Reems is longer than at most regular public schools—from 8:00 a.m. to 4:00 p.m. The school year is also longer. This results in more instructional time for all grades than is required by the state, from 11,975 for grades 4 through 8 to 29,975 minutes for kindergarten.

Class and school size

The school is small at 349 students in 2005-06. The class sizes are also small, with classes of just under 20 students in kindergarten through fifth grade, and about 22 students in core classes for the middle-school grades.

Personnel

Leadership

The principal and vice principal are the primary decision makers at Reems. Lead teachers and the teacher representative play an important role in providing teacher input in the decision making process. Teachers do not appear to play a central role in the school's leadership.

Teacher morale and turnover

Some of the teachers we spoke with expressed concerns regarding resources, as described above, and also about the high turnover rate (reportedly 25 to 40 percent). Even though the major problems with personnel are no longer an issue, some teachers still expressed concerns about sustainability. Some did not have long-term plans to stay at Reems (some because they would like to move on to an administrative position in the district), and some mentioned an environment that did not facilitate collaboration. One teacher attributed attrition at the school to the fact that "New teachers don't get much support."

On the other hand, some teachers commented favorably on the degree of autonomy they had in the classroom and others attributed a sense of staff cohesion to good hiring decisions. The school leadership was generally optimistic about the school's future and proud of its achievements, especially in a community that has been long neglected.

Hiring and firing practices

The school principal reported having complete control over hiring and firing decisions. The district is not involved, and there is no charter maintenance organization or network to participate. There is no union and staff are hired on a year-to-year basis, signing a one-year contract—there is no tenure available. Teaching candidates are interviewed by the principal and vice principal and strong candidates are invited to give a demonstration lesson. There is a formal teacher evaluation process at Reems as well.

Salaries

Teachers at Reems reportedly initially make salaries similar to teachers in the district. In subsequent years, teachers were said to be paid slightly less, with benefits that are similar. The principal reported that even though the pay mechanism is not based on performance, some teachers have received bonuses.

Facilities

The building is older and in some cases some repairs appeared necessary. It is rented from a church that originally helped found the charter school, so the rent is below the market rate. Classes and outdoor spaces are small; the cafeteria is small enough that the school requires four lunch schedules. There is no library and assemblies are held next door at the church, which is not always available. The principal mentioned applying every year for a new facility under Proposition 39, but that so far she has not been successful.

Fundraising

Fundraising makes up a small part of the school's annual budget—\$55,000, or 2.2 percent. It is reportedly raised largely through the efforts of parents and the school's board.

Special Education

Reems receives its special education services through a SELPA, contracting with them for services. The school pays by total student population (currently reported to be about \$471 per student). Concerns were raised that this was not a favorable arrangement for the school.

Parental Involvement

Parents are required to provide 40 hours of volunteer service a year per family, although it was mentioned that this is not strictly enforced. The principal recognizes that the community in which the school is located has many social problems, and that this affects the potential for parental involvement.

Ralph A. Gates Elementary School

OVERVIEW

Ralph A. Gates Elementary School in Lake Forest (Orange County), California was converted from a regular public school to a charter school in fall 1999. It serves students in kindergarten through sixth grade and has both a regular academic program and an English/Spanish dual immersion program. Gates was converted to a charter when the school's leadership feared that they would not be able to continue the dual immersion program after the passage of Proposition 227. Despite the conversion, the school is still under Saddleback Valley Unified School District leadership and still receives its funding through the district.

The school enrolled 807 students in 2005. The students in the regular instructional program are largely from the neighboring area, which has more students who are English learners or eligible for free and reduced price lunch than the district as a whole. The students in the dual immersion program are drawn from a wider area due to parents seeking out the bilingual education opportunity and these students tend to be of higher socioeconomic status than the other students. There is a waiting list for native English speakers entering kindergarten because of the popularity of the immersion program, and admission is first come, first served.

Student Characteristics and API Results, 2004-05

	Gates Elementary	Saddleback Valley Unified School District
White	19%	66%
Hispanic	74%	21%
African-American	2%	2%
English learner	51%	9%
Free and reduced price lunch	59%	15%
API Score	718	826

Source: California Department of Education, CBEDS data of 2004-05 and 2005 API base files.

SCHOOL GOVERNANCE

Gates has a tight relationship with the school district. District representatives stated that "everything that they would provide to any of their schools is provided to this school." The district has a say in the hiring process and provides a long list of typical services, such as payroll, legal services, operations, and maintenance. The school's calendar is also the same as that of the district's other schools.

Gates receives its funding through the district, and the district dictates many aspects of how it is used. The school designs its budget, but the district reviews and monitors it. Instructional materials are paid for with charter funds, but are the same materials are found at the district's other schools.

USE OF RESOURCES AND UNIQUE CHARACTERISTICS

There is no significant difference between Gates and regular public schools. The charter school conversion was undertaken strictly to protect the school's immersion program, and aside from funding differences the school is a regular public school in all but name. The school's leadership does not attempt to take advantage of the specific areas of flexibility and freedom allowed to charter schools. Some of the parents we spoke with were not even aware that Gates is a charter school and some of the teachers were not clear about how charter schools can be potentially different from regular public schools.

Some of the teachers we spoke with perceived Gates as having more resources than other schools they had worked at. This may be because in addition to receiving all of the resources the district provides to regular public schools Gates receives the charter school block grant.

Instructional model

Gates Elementary's instructional model has two components. The regular program does not differ significantly from the instruction offered by regular public schools. Teachers from Gates attend district-wide in-services and the district distributes the same textbooks to Gates as to its other schools. The dual immersion program, while being unique, is not specific to charter schools. Students move on from the dual immersion program to a specific middle and high school. Upon graduating from the high school, they receive a diploma in Spanish from the Spanish embassy.

Instructional time

Gates has a typical school year and school day with no extra instructional minutes in the school year compared to what is required by the state.

Class and school size

Gates has 807 students. Its class sizes are very similar to the statewide averages for grades 1 through 5, with 18.8 students on average in grades 1 through 3 and 29.8 students in grades 4 and 5. Kindergarten classes have an average of 30.6 students.

Personnel

Leadership

The school's prior principal and its dual immersion teachers were very involved in the process of converting the school to a charter school. They designed the curriculum and helped write the charter. The teachers we spoke with seemed to be very committed to the dual immersion program. The teachers seem to look to the current principal for guidance.

Teacher and administrator characteristics

Teachers at Gates tend to be very experienced, with almost 18 years of experience in education on average. Teacher education levels are similar to statewide averages. Gates administrators are somewhat less experienced and slightly more educated than administrators across the state.

Teacher morale and turnover

There appears to be little teacher turnover. According to the district, when teachers leave it is because they are retiring or because of personal reasons. While morale overall appears to be high, there seems to be a divide between teachers in the dual immersion and regular programs. Some individuals we spoke with had the impression that the teachers in the dual immersion program were more committed to and invested in their work.

Hiring and firing practices

The school interviews teaching candidates from an initial list provided by the district. Teachers must be fluent in Spanish and have a BCLAD. The paperwork is handled by the district. After the school chooses finalists for a position, they are interviewed by the district's assistant superintendent for final approval. When necessary, the district is in charge of removing teachers. The teachers are unionized and 86.4 percent have tenure.

Professional development

The district provides some professional development opportunities, including a 10-month masters program through a local university. There is also school-specific professional development, although one teacher reported that the amount of this has been reduced in recent years.

Salaries

Salaries at this school are set by the district bargaining agreement and salary schedule.

Facilities

Gates Elementary's facilities are better than those found in some of the other charter schools we visited. This is likely because the school is converted from a regular public school and because facilities funding is provided by the school district—which is not the case for many charter schools. District representatives mentioned that the school's facilities had been modernized through community redevelopment funds provided by the district.

Fundraising

The school principal reports that Gates does significant fundraising. There are several events throughout the year, such as a book fair and jog-a-thon. The school has two active parent support groups—the PTA and ALL (advocates for language learners) that work together for fundraising activities. Parents reported that the school raises around \$40,000 a year through its fundraising activities, and that about \$7,000 of this goes to the school's art program—a decision that was made to address budget cuts that undermined the existing program.

Special Education

Gates Elementary is part of their local SELPA.

Parental Involvement

Some of the teachers at Gates spoke of a language barrier between the teachers and parents that got in the way of parents being involved in their students' education. However, parents participating in the focus group reported that they did have a say in who is hired at the school,

mentioning that they participated in interviews and gave feedback to the district when the new principal was being hired.

CHAPTER VI. SUMMARY AND POLICY DISCUSSION

SUMMARY OF FINDINGS

The first of three major questions set out for this paper is the extent to which charter schools are in fact operating beyond traditional governing rules and how this independence is related to academic success. To summarize our results, we found the information in current statewide data designed to characterize the degree of independence among types of charters were not very helpful. Accordingly, we attempted to devise our own composite measure of independence from extant data. Based on this typology, the degree to which charters exercise the freedom they have from traditional rules varies considerably.

Due to the lack of extant data that are very helpful in distinguishing among charter schools, after completing our site visits we concluded that we were only able to fully assess the degree to which a charter was operating beyond traditional governing rules at the schools we were able to visit. Only through the observations, interviews, and focus groups conducted during these visits were we able to more fully discern how they governed themselves, used resources, and operated in ways that are not apparent from current data. Although the number of visited sites was limited to six, we were able to observe a broad range of variation in regard to many practices that appeared different from one another and different from what we generally observe in traditional public schools.

At one extreme of variation, one charter we visited that was designated as a conversion charter school, the respondents at this school made it very clear that they were a charter “in name only.” They said they had become a charter for the sole purpose of avoiding state law in regard to the provision of bilingual education as a result of Proposition 227.

This contrasted sharply with Vaughn Next Century Learning, which is also a conversion charter. Vaughn was among the first charters in the state and clearly has been a pioneer in defining what it means to be a truly independent charter. From a neighborhood elementary school that was a part of the Los Angeles Unified School District, Vaughn has grown quite large and is currently extending an additional grade each year through high school. It has added an early childhood education center to become a fully independent facility serving a 100% poverty neighborhood in central Los Angeles from birth through high school.

New City in Long Beach is a start-up charter school. Although much newer in its development, like Vaughn, it is fully independent of the local district and is not part of a larger CMO. However, its goals of dual language acquisition for all students, heavy emphasis on art, and real world experiences and applications also make it quite different from Vaughn. Others of the schools we visited were quite integrated into a larger CMO network, such as High Tech Middle Media Arts school, or had a more distant relationship such as the KIPP Bayview Academy.

In short, in a freer regulatory environment, it seems reasonable that one would expect a much greater degree of variation in practice. Some of the charter schools we visited have ventured

much farther from what is customary, while others have clearly elected to stay very close to what they had always been and known.

While we were clearly struck by the differences we observed across the sites we visited, the degree to which this observed variation applies across all charter schools does not appear easily discerned from charter data. Our experiences in this study, however, suggest that charters are much more varied than regular public schools. Because of this, attempting to examine such things as charter performance or resource allocation practices in the aggregate and contrasting them against regular public schools may not be very helpful in informing the overall charter debate or for attempting to consider the implications for public schooling policy based on what is observed in the aggregate, or on average.

Because the universe of regular public schools for the most part is quite uniform, the assumption may be that charters are as well. As mentioned, extant data do not go a long way toward highlighting these distinctions. Hence, the difficulty of addressing the question of how these differences appear related to academic success. We have tried to analyze this question as best as we can in chapter 4, distinguishing among types of charters to the greatest extent that we believe the data allow. While overall, charters seem to be performing reasonably on par with other public schools, the highly independent charters appear to perform somewhat less well in math.

In addition, it seemed clear that even the most innovative sites were coming to realize that they needed to attend more to the state's official outcome measures. A good example is New City School which seemed to center its outcome goals on bilingualism, art, moral and educational responsibility, and community-based learning. To promote this last learning objective, they spend a full day of every week on site visits in the community. With an educational agenda this broad and ambitious, it may not be surprising that they had found relatively little time for traditional test preparation. However, over the past several years their awareness of the need to attend to these highly visible measures of how well they were doing was made clearer to them in the form of possible threats to their continuance, and their testing performance rose substantially in response.

On the other side of the outcome question, most of the charters we visited clearly had some selection bias in their favor. Students and families had to choose them and therefore those who end up in charters have bought into a given approach to learning and are presumably motivated to be there. Based on what would seem to be a considerable advantage over many schools, where students are simply assigned by virtue of where they live, you might expect a performance advantage that we do not see reflected in the outcome data for charter schools overall.

In summary, due to the limitations of available data, it is difficult to determine the extent to which most charter schools are in fact operating beyond traditional governing rules. We purposely chose six charters to visit that we thought would be quite different from one another as well as from traditional public schools. After visiting these six schools, we did in fact see a great deal of variation on such important attributes as how they were staffed, how staff was used, contract relations with staff, curriculum design, and the availability and use of space. The charter schools in which these variations were viewed were those that were virtually completely independent of district control. This took them out of district bargaining arrangements and

allowed them to pursue design features for their school independent of the top-down, more uniform perspectives generally provided through district oversight.

How this independence related to academic success is more difficult to assess. The independent schools among the sites visited tended to perform well compared to non charters with like populations. As described, however, even though charter law, and perhaps their own preferences, precluded them from choosing students outright, parents and students had to seek out the school and its expressed mission to end up there. In this way, there was clearly some selection bias involved in the interpretation of these test score differences. In addition, several of these schools had outcome goals that went well beyond traditional test score measures. Another way to consider their academic success was the relative demand for the services they were providing. In several of these schools demand to attend clearly exceeded the space available.

The second question to be addressed in this study is whether resource allocation practices observed in charter schools differ substantially from regular public schools and whether these differing practices appear to relate to academic success. Overall, charter schools tend to be smaller than traditional public schools, serve a lower percentage of students in poverty and English learners, and are more likely to enroll African-American students. In addition, teachers in charter schools tend to have less teaching experience and years of education, are less likely to have tenure and to be fully certified. However, the percentage of teachers that hold advanced degrees is similar in highly independent charters compared with traditional public schools. In addition, charter schools tend to have smaller class sizes in grades 4-5 when compared with traditional public schools.

Within charters, schools with a high degree of independence tend to distinguish themselves most clearly from traditional public schools, while charters with a low degree of independence tend to be similar to traditional public schools. For example, teachers in charter schools with a high level of independence have, in average, 6.6 fewer years of experience, whereas teachers in charters with lower levels of independence have 3.6 fewer years of experience compared to teachers in traditional public schools. One striking resource allocation measure, however, between charters and regular public schools that did appear in current data is the percentage of teachers holding tenure. This may be a variable worth further consideration in subsequent charter studies as a possible proxy measure for determining charter independence. For example, it is interesting that even among charters showing low independence based on the index derived for this study the percentage of teachers with tenure (39 percent) is so much lower than the average for regular public schools (60 percent) despite the realization that some percentage of these charters are generally not very different from non-charter publics. In the aggregate, due to data limitations discussed above, it is difficult to assess the extent to which these differing resource allocation practices relate to academic success.

The third major question is whether individual charter schools can be identified with especially unique resource allocation patterns, what are they doing that is different, and how these practices appear to affect student outcomes. Most of the charter schools we visited had unique resource allocation practices that are different from what we generally observe at non-charter or more traditional charter schools. At the same time, one of the visited charters was very clear in

their intent to be like any other school and appeared to employ very traditional resource allocations practices.

Even at the sites that appeared to be doing things quite different, however, most of what we observed was not well reflected in our analyses of extant state resource data. For example, several of the charter schools we visited appeared extremely lean on administration, e.g. New City and High Tech High, even though this was not necessarily reflected in the data. For example, New City School had no outside support from the district or from a CMO, and was doing everything in regard to running the school themselves. They were doing this with one part time administrator who also taught a class, another quasi-administrator with a full teaching load, and a clerk – none of whom had offices. However, partly due to their small size and perhaps due to the ways in which other schools count administrators they do not look very different from other schools in regard to their ratios of administrators to 100 students at the school site. One possible source of disparity between what we observed and what the data showed is that in resource allocation studies we have conducted in non-charters, it is not unusual to find staff labeled as teachers who do not directly serve students, e.g. who primarily conduct student assessments, serve as overall coordinators for special programs such as EL or special education, or serve in a quasi-administrative role. Conversely, at least in the majority of charters we visited, virtually all of the staff we observed with the job title of teacher provided a full day of instruction to students as well as some of the staff we observed who were said to be administrators.

Other innovative practices we observed that do not show up in traditional resource allocation data include a full day of every week engaged in learning activities in the community, a longer instructional year, or the fact that all of the school's students can stay at the school until after five and indeed can not leave until a designated party personally picks them up.

One important resource allocation difference that was referred to in all of the five highly independent schools we visited was the ability to easily hire and remove teachers. This importance resource difference seems to apply to some extent across the full universe of charter schools, and especially among highly independent charters. These practices were possible at these sites because there was no union contract to preclude them. The charter leaders we interviewed were very clear, however, that their staff could unionize if they chose to do so and acknowledged that this might happen.

POLICY DISCUSSION

The charter school movement has expanded rapidly since 1992. Today California has more charter schools than any other state; 1 out of every 20 public schools is a charter, and 1 out of 50 students go to a charter school in the state. But these schools are not without controversy. Opponents claim that these schools skim the best students, draining resources away from traditional public schools and promoting racial segregation. Supporters claim that in a less-regulated environment these schools promote innovation and foster competition between charters and traditional public schools, ultimately improving the overall quality of education for all.

This study attempts to move beyond specific questions as to whether charters are somehow inferior or superior to non-charter public schools and whether their addition helps or hurts public education overall. Rather, we attempt a finer grain assessment of charter school policies and resource allocation practices in California.

We know that the primary feature that distinguishes charters from non-charters is that they are exempted from a number of traditional governing rules and that in theory this affords them the freedom to experiment in regard to what it is possible to do within the public schooling sector. They are in a better position than non-charters to test the extent to which variants on common public education practice might somehow be more efficient, i.e. produce equal or superior outcomes for less or equal money. To attempt to fully address the question of whether charter status makes a difference in this regard, however, would require a comparative analyses of a broad sample or perhaps the full universe of charter versus non-charter schools.

The findings of this study suggest, however, that charter schools are much more heterogeneous than non-charters. While it can be argued that non-charter public schools are most striking regarding the high degree of similarity in the ways they are structured and organized, charters are much better characterized by the degree to which they differ from one another. Given these differences, attempts to compare charters and non-charters in the aggregate on such key policy questions as to whether they are more or less effective in producing student outcomes with more or less funds than non-charters seem unlikely to be helpful in understanding what is really going on among the universe of charter schools and the policy implications of alternative charter provisions.

Another argument for moving beyond the debate of whether charters as a group are somehow superior or inferior to non-charter schools is the strong indication that charters are here to stay. As the number of charter schools in California has been growing rapidly over the past several years, it seems increasingly important that better ways be developed for characterizing these schools in databases that lend themselves to analyses by charter characteristics that truly distinguish one type of charter from another.

While answers to questions in regard to the effectiveness of charters as a whole may continue to be elusive, we may better understand the conditions under which certain types of charters appear to be thriving or struggling. As charters also arguably represent the experimental component of public schooling in California it seems imperative that we learn as much as possible from these varying conditions in which public schooling is provided. All public schools in California might

profit from this enhanced potential to better understand the broad array of public schooling policies and practices that appear to make a difference in regard to student outcomes from those that do not.

The concerns listed above as to whether the expanding charter movement will enhance or hurt public education in California appear vitally important to the future of public education in the state. We are experimenting in an area that is very important to individual student's lives and in regard to a public service that is of fundamental importance to our future well being. Given that charters have the potential to, and sometimes do, vary in important ways from public education as we customarily know it, it seems likely that some of these charter experiments will provide important information regarding when decreased regulation could be a boon to the system overall and where there should be serious concerns.

As to future study in this area, we need much better ways to characterize and describe the state's population of charter schools in ways that lend themselves to cross analysis of which characteristics of charters are important to distinguish in fully understanding the implications of charter policies and practices. It seems important to move away from rather rudimentary attempts to compare charters in the aggregate to non-charters. This only seems to distract attention from the differences among charters and the potential importance of these differences in regard to affecting student outcomes. Exactly which of the characteristics of charter schools are most important and how they can be more precisely measured seems important.

As an example, better measures of the degree of independence from a governing school district seems quite important in distinguishing among charters and the degree to which they are employing resource allocation and instructional practices that differ substantially from non-charter schools. While much of the variation we observed in charter schools seemed to emanate from local policy or the school's relationship to the local school district, the nature of these relationships are clearly influenced by state policies that affect the degree to which charters can be formed and operate independent of local authorities.

Another striking characteristic of the independent charters we visited is the degree to which they appeared to be much more constrained in regard to space, both in terms of the amount of building space available compared to non-charter publics and in regard to grounds. If charters are to continue to be an important part of the California public schooling sector it would seem important to expand current policies that allow charters to procure and maintain the buildings and grounds deemed suitable and appropriate for all public school children in California.

In summary, given the likelihood that the charter sector will continue to grow, and given the importance of enhancing the efficiency of public education provision overall in the state, it seems imperative to learn as much as we can from the broad range of these charter experiments about the ways in which this growth can occur in as positive a way as possible and how state policies in regard to all public schools in California might best be altered. It has been noted that while California has one of the most highly regulated non-charter public school systems in the country, its charters are perhaps the least regulated.³³ Given this scenario in which we have one sector of public schools in which we are increasingly tightening the reins of governmental

³³ This was expressed through a personal communication with education professor, and former California State School Board President, Michael Kirst of Stanford University.

control and a growing sector for which we have largely let go of the reins, it seems vital that we fully take advantage of the opportunity this affords to learn more about which areas of regulation and oversight are important to retain and which should be relaxed to enhance the productivity of all of California public schools.

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