SAN FRANCISCO BAY AREA

KIPP SCHOOLS

A STUDY OF EARLY IMPLEMENTATION AND ACHIEVEMENT FINAL REPORT

Research conducted by SRI International

SRI International

San Francisco Bay Area
KIPP Schools

A Study of Early Implementation and Achievement

FINAL REPORT

Katrina R. Woodworth
Jane L. David
Roneeta Guha
Haiwen Wang
Alejandra Lopez-Torkos

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EXECUTIVE SUMMARY

The Knowledge Is Power Program (KIPP), begun in 1994, now comprises a national network of almost 50 middle schools and a small but growing number of high schools and elementary schools. Under the umbrella of the KIPP Foundation, KIPP schools operate independently in low-income communities. All are public schools, and almost all are charter schools.

KIPP has attracted considerable attention in the last few years. The media laud it for the higher than expected test scores achieved, for the dramatic increase in instructional time, and for its goal of preparing students for college. At the same time, KIPP is accused of creaming the most successful students from high-poverty public schools, for using harsh disciplinary practices, and for focusing on test preparation. Neither the praise nor the criticism has been closely scrutinized.

Impressed by the publicly available achievement data, The William and Flora Hewlett Foundation asked SRI International to study the achievement results and methods of operation of the five KIPP schools in the San Francisco Bay Area.

WHAT IS KIPP?

KIPP's mission is to equip students, primarily those from low-income and minority families, "with the knowledge, skills, and character traits needed to succeed in top quality high schools, colleges, and the competitive world beyond." Every KIPP school operates according to a set of principles, called the "Five Pillars," that define the KIPP approach. *Choice and Commitment* reflects the assumption that students, parents, and faculty choose KIPP and commit to its program. KIPP schools maintain *High Expectations* for academic achievement and a culture that includes a system of rewards and consequences for behavior. Key to the academic program is *More Time*—an extended school day of at least 9 hours, augmented by school on Saturday and in the summer. School leaders have the *Power to Lead*, with total control over their budgets and personnel. Finally, the KIPP Foundation expects KIPP schools to have a singular *Focus on Results*, demonstrated by student performance on standardized tests and by preparation of students for success in high school and college.

STUDY DESIGN AND METHODS

Our study was designed to describe the implementation and impact of KIPP in five Bay Area middle schools over 3 years, not to evaluate individual schools. Specifically the study goals were to:

- Assess KIPP *effectiveness* through rigorous analysis.
- Examine the role of *leadership* both at the Bay Area KIPP schools and at the KIPP Foundation level.
- Document how the KIPP *culture* is put in place and how it is adapted.
- Understand how *curriculum* and *instruction* are designed.

To understand implementation of the KIPP approach in the Bay Area, we relied on multiple sources of data over the course of the study, including extensive interviews with school leaders, teachers, and KIPP Foundation and KIPP Bay Area Schools staff; focus groups with students and parents; observations of a range of activities and events; and teacher and student surveys. We based our analyses of student achievement on three data sources:

1. Publicly available school-level California Standards Test (CST) data.

2. Student-level Stanford Achievement Test, 10th Edition (SAT10), data from the KIPP Foundation for all students enrolled in the five Bay Area KIPP schools.

3. Student-level CST data for two cohorts of students (KIPP and non-KIPP) in the host districts for three of the five schools. (The host districts for the other two schools were unable to provide student-level data.)

We used the student-level CST data to determine who among district students goes to the KIPP schools in the districts and to construct a comparison group, using propensity score matching, against which we could assess KIPP student achievement. The three schools are not necessarily representative of the five schools. Nor should the cohorts included in these analyses—among the first served by the Bay Area KIPP schools—be considered representative of subsequent cohorts.

THE BAY AREA KIPP MIDDLE SCHOOLS

The five KIPP middle schools, all of which are charter schools, serve grades 5 through 8. The first school opened in 2002 and the most recent opened in 2004. By 2006-07, together they served more than 1,300 students.

Consistent with the KIPP mission, the Bay Area KIPP schools serve predominantly poor and minority students.

In 2006-07, Bay Area KIPP students qualifying for the Free and Reduced-Price Meals Program (FRPM) ranged from a low of 63 percent at one school to a high of 81 percent at another. Although each school's student body consists almost entirely of students of color, the specific racial and ethnic composition varies: across the schools in 2006-07, African-American students ranged from 5 to 74 percent, with Latino students ranging from 7 to 73 percent.

Most Bay Area KIPP teachers graduated from highly selective colleges and took nontraditional routes into teaching.

The schools typically opened with three classroom teachers. By 2006-07, each school employed approximately 15 teachers. Teachers come to the Bay Area KIPP middle schools with strong academic backgrounds (more than half from highly selective colleges) and limited classroom experience (a median of 3 years). Seventy percent took nontraditional routes into the profession—that is, they began teaching before earning their credentials.

STUDENT ACHIEVEMENT

To estimate the impact of the five Bay Area KIPP schools on student achievement, we conducted several analyses using different sets of data to arrive at as complete a picture as possible. Our most rigorous analysis is based on three schools for which we had district-wide student-level data.

In most grades and cohorts, Bay Area KIPP students make above-average progress compared with national norms, and they outperform their host districts.

In 80 percent of cases, Normal Curve Equivalent (NCE) changes in the SAT10 mathematics scores are positive, indicating above-average progress for Bay Area KIPP students; the gains tend to be higher in

grades 5 and 6 than in grades 7 and 8. In general, SAT10 reading scores follow a similar pattern. In 2006-07, with one exception, higher percentages of Bay Area KIPP students reached proficiency on the CST in both English language arts (ELA) and mathematics across all grades compared with the host district; in many cases, these differences in percentages are substantial. The percentages of students scoring proficient on the CST varied by school, content area, grade level, and cohort and ranged from 15 to 99.

Bay Area KIPP schools have large and statistically significant effects on the academic achievement of fifth-grade students and new sixth-grade students.

At the end of fifth grade, KIPP students at three Bay Area schools outperformed their matched counterparts who attended other schools in the same district in ELA and mathematics on the CST, with statistically significant differences in estimated percentile rank between KIPP and non-KIPP students ranging from 5.6 to 33.0 points (effect sizes ranged from 0.16 to 0.86). Students who joined KIPP in the sixth grade also saw positive effects by the end of their first year, with KIPP students outperforming non-KIPP students by an estimated 8.9 to 33.9 percentile points (effect sizes ranged from 0.24 to 0.88).

Bay Area KIPP schools do not appear to attract higher scoring students.

Because students choose to attend KIPP, high levels of performance could simply mean that higher scoring students choose KIPP. On the basis of models developed to predict attendance at the three schools for which we could conduct more detailed analyses, however, we found the opposite to be true: Students with lower prior ELA and mathematics achievement on the CST were more likely to choose KIPP than higher performing students from the same neighborhood. Across all five schools, in 2006-07, average entering fifth-grade test scores ranged from the 9th to the 60th national percentile in reading and mathematics on the SAT10; the schools do not appear to have attracted higher scoring students over time.

Student attrition rates are high, and those who leave Bay Area KIPP schools start out lower performing and benefit less from their time at the schools than those who stay.

Student enrollment in the Bay Area KIPP schools declines after the sixth grade; of the students who entered fifth grade at the four Bay Area KIPP schools operating in 2003-04, 60 percent left before the end of eighth grade. At least two of KIPP's host districts also experienced substantial student attrition over the same period—22 percent and 50 percent, respectively. On average, those who leave KIPP before completing eighth grade have lower test scores on entering KIPP and demonstrate smaller fifth-grade effects than those who stay.

We could not estimate longitudinal impacts because of student attrition and in-grade retention. Because of both the number of students who left and the fact that those who left are systematically different from those who stayed, longitudinal comparisons would be biased.

SCHOOL LEADERSHIP AND SUPPORT

By design, KIPP school leaders have considerable autonomy. The KIPP Foundation seeks to ensure school leaders' success by putting prospective leaders through a rigorous screening process and an intensive training program, followed by ongoing support. School leaders are in turn held accountable to the KIPP Foundation, which has the right to remove the KIPP name from schools that fail to meet its quality standards.

Bay Area KIPP school leaders have substantial authority over their schools and cite teacher selection as their most critical function.

The Bay Area school leaders place great value on having the "power to lead" and are committed to being held accountable for results in exchange for autonomy. They unanimously view the authority to select and assign teachers as their most critical function. School leaders seek teachers who share their vision and commitment; they vary in the value they place on teachers' level of experience.

Teacher turnover poses an ongoing challenge for Bay Area KIPP school leaders.

Teacher turnover, a result of both ambitious young teachers moving on and the demanding nature of the job, poses challenges for Bay Area school leaders and may have implications for the sustainability of the model. The typical Bay Area KIPP teacher reported working 65 hours a week in 2006-07. Annual teacher turnover rates for Bay Area KIPP teachers ranged from 18 to 49 percent from 2003-04 to 2007-08. Of the classroom teachers who left from 2003-04 to 2007-08, 30 percent continue to work at a KIPP school but in another capacity.

Bay Area KIPP school leaders set up new roles and structures to support instructional improvement.

Although all the Bay Area school leaders establish structures to support teaching and learning, they differ in their instructional leadership and degree of oversight. In some cases, school leaders use systems and practices, including administrator and peer observations and regular student assessments, to actively support teachers and carefully monitor student learning. On average, 77 percent of Bay Area KIPP teachers agreed with the statement "my principal actively monitors the quality of teaching in this school." The range across the five schools, however, was 31 to 100 percent.

In California, low funding and high costs necessitate substantial fundraising.

The Bay Area KIPP schools' operating costs significantly exceed California's basic school funding level. Consequently, schools leaders must add substantial fundraising to their many responsibilities. With less than $6000 in state and local revenues, per-pupil funding for KIPP schools in California is nearly half the per-pupil funding available to KIPP schools in other high-cost states. Bay Area KIPP school leaders need to raise anywhere from $400,000 to $700,000 annually to close the gap between the state and local funds they receive and their true operating costs.

The KIPP Foundation provides leadership and support to school leaders, adapting as needs arise.

The KIPP Foundation provides schools with direct assistance, adapting its support in response to information gathered through multiple feedback loops. Recently, the KIPP Foundation determined that local entities are in a better position to provide support. In the Bay Area, the Foundation supported the development of KIPP Bay Area Schools, a nonprofit entity created to ease school leaders' administrative burden by assisting with teacher recruitment, fundraising, and back office functions.

SCHOOL CULTURE

KIPP schools are characterized by high expectations for student performance and behavior, including a focus on going to college and a structured discipline system that reinforces desired behaviors and values.

The Bay Area KIPP schools have a distinctive culture that is recognizable immediately, even in their first year of operation.

The KIPP culture embodies high expectations for students' academic performance and behavior, a structured discipline system, and a strong emphasis on character development. This culture is apparent in slogans and banners; in the use of chants, songs, and rituals; and in the behavior and language of students and adults. Contributing to the rapid establishment of the KIPP culture is the self-selection of school leaders and teachers committed to KIPP's ideals coupled with opportunities for faculty and students to be immersed in the ways of KIPP before the opening of school.

Each Bay Area KIPP school has established an explicit system of rewards and consequences for students that is adjusted over time.

Bay Area KIPP faculties create structured behavior management systems to explicitly teach students how to conduct themselves and to ensure that behavior does not interfere with teaching and learning. These behavior management systems are characterized by rewards for following rules, including points that translate into "paychecks," and consequences for failing to do so, including isolation from peers. As the schools have grown, Bay Area KIPP staff has made changes to the behavior management systems to respond to aspects that were not working well and to adapt to the different needs of older students.

Bay Area KIPP teachers attribute student success to the combination of high expectations and consistency in the behavior management system.

Bay Area KIPP teachers nearly unanimously rate "explicit and high expectations for student learning" and "consistent enforcement of school rules" as key to helping students succeed academically. Although all school leaders and teachers strive for consistency in managing student behavior, some struggle more than others to achieve this goal. Consistency is influenced by school leadership, staff stability, and students' responses to the behavior management system. Across the five Bay Area KIPP schools, an average of 70 percent of teachers reported that school rules are consistently enforced; the range was from 46 to 100 percent.

Bay Area KIPP students are aware of teachers' high expectations for their success, and most report positive caring relationships with their teachers and peers.

Almost all Bay Area KIPP students believe that their school will help get them to college. Similarly, virtually all Bay Area KIPP students reported that most or all of their teachers expect them to work hard and believe that all students can do well. Four out of five Bay Area KIPP students reported that there is an adult at the school they can talk to and at least one adult who cares about them.

Most Bay Area KIPP students reported that the school rules are consistently enforced; whether they believe the rules are fair varies by school.

Bay Area KIPP students reported that KIPP's "strict" environment differentiates KIPP from other middle schools in their community. Nearly 9 in 10 Bay Area KIPP students reported that the school rules are strictly enforced; however, an average of just 56 percent believe that the school rules are fair, ranging from a high of 84 percent at one school to a low of 37 percent at another. Although the KIPP schools are not immune from the undesirable student behaviors that traditional public schools face, students generally perceive their KIPP school as a safe place where most students get along with one another.

CURRICULUM AND INSTRUCTION

KIPP emphasizes academic achievement, embodied in its Focus on Results and High Expectations pillars, including the expectation that students will be on track for a college preparatory curriculum in high school. But it does not prescribe specific teaching practices or curriculum. The KIPP approach affects curriculum and instruction most directly by the additional time students spend in school—time that each school can allocate as it sees fit.

Students attend Bay Area KIPP schools for approximately 9.5 hours each day and have roughly 60 percent more instructional time than students in traditional public middle schools.

All five Bay Area KIPP schools spend at least 85 minutes daily on ELA and mathematics. How the remaining time is allocated varies across schools and grade levels; it regularly includes science, social studies, enrichment courses, study hall, and some form of physical activity. KIPP culture and homework policies contribute to maximizing classroom time spent on instruction.

Bay Area KIPP students also have extended instructional time and access to their teachers after school.

The Bay Area KIPP schools provide interventions for struggling students and evening telephone access to teachers for homework help. All five schools concentrate on bringing fifth-graders up to grade level; students who do not catch up may be required to repeat fifth grade. Instructional time also includes a 2- to 3-week summer school and Saturday school, which is typically held every other week and lasts 3 or more hours.

Bay Area KIPP teachers' conceptions of effective instruction differ; most create their own lessons.

Decisions about curriculum and instruction are in the hands of each school leader. In all five Bay Area KIPP schools, that autonomy, in turn, is delegated to teachers who make their own choices about teaching approaches, curriculum, and materials. As a result, teachers' instructional practices vary, although most describe their approach as "structured."

Most Bay Area KIPP teachers work backwards from the state standards and assessments and use data from frequent assessments to track student progress and adjust instruction.

The use of data is a priority in all schools, but data use is more systematized and supported in some than in others. To varying degrees, Bay Area KIPP school leaders encourage continuous improvement in curriculum and instruction through a variety of mechanisms including formal and informal observations by administrators and teachers, access to formal professional development, and time for teachers to work together. In some instances, these practices combine to create a culture of improvement that enhances teachers' sense of professionalism and professional accountability.

Bay Area KIPP teachers have access to and value a variety of learning opportunities.

Teachers report ample opportunities to attend conferences and trainings, both those sponsored by KIPP and others of their choosing. As the schools have expanded, teachers also have more opportunities for school-based learning and support, including observations, mentoring, and conversations with peers.

LESSONS FROM THE BAY AREA KIPP SCHOOLS

The five Bay Area KIPP schools have created identifiable cultures and posted strong achievement gains, especially in fifth and sixth grades. Although we cannot demonstrate a causal link between specific school features and student outcomes, through observations, interviews, and surveys, we identified features of the Bay Area KIPP schools that are likely contributors to student achievement. These features, which closely match KIPP's pillars, are:

- A culture of high expectations for student academic performance and behavior.
- Extensive time and support for student learning.
- A focus on tracking student progress and careful instructional planning.
- A philosophy of continuous improvement.

Together, these features result in school conditions that can support students as learners and teachers as professionals.

These findings, based on the early experiences of the Bay Area KIPP schools, offer useful lessons for other schools and school districts to consider. These schools are successful with many students whose demographics and prior achievement suggest they are at high risk for failure. Although the Bay Area KIPP schools demonstrate positive impacts, they do not provide, nor do they claim to provide, solutions to many of the challenges facing urban schools, including student mobility and teacher turnover. Unlike most urban schools, KIPP schools comprise students, teachers, and school leaders who have chosen to affiliate with KIPP. Still, their experiences point to important themes worthy of serious consideration and

topics for further study. We highlight three of these themes and propose a set of questions to pursue in future research.

Guidance through a system of principles, not a specific program or curriculum

KIPP is defined by a set of guiding principles—the five KIPP pillars—that embody a theory of action about the elements essential for academic and behavioral success for students from poor communities. These five principles operate in tandem; weaknesses in one undermine the others. In the Bay Area KIPP schools, the interdependence of the elements is evident: The extra time matters because it can be used well when students come to school having completed their homework and behave themselves. Students complete their homework and behave because they and their families have committed to follow the rules and because staff work hard to consistently enforce the rules. Staff work hard to enforce the rules and design their curriculum because they believe in KIPP's mission.

Thus, adopting one KIPP feature, such as simply extending the school day is unlikely to produce the same results as KIPP's longer school day without concomitant changes in culture and instructional planning. Strength in each of these elements enhances the other while the absence of any one threatens the whole. The challenge facing high-poverty districts and schools is how to implement these elements in concert with each other, and specifically how to engender student, parent, and faculty commitment in the absence of choice.

The role of voluntary association in creating shared beliefs and commitment

Family and faculty choice appears fundamental to Bay Area KIPP schools' success in rapidly creating a strong culture that supports teaching and learning. Teachers in particular sign on for long days and embrace KIPP's general approach to rewards and consequences for behavior. Even with teacher choice and tremendous effort, achieving consistency is a struggle. The variation across the five KIPP schools suggests that achieving a consistent approach to behavior is unlikely in schools where teachers and leaders have not opted in to the new approach.

Creating a system in which principals and teachers can choose schools that match their philosophical leanings poses an enormous challenge for districts. Moreover, even for KIPP schools whether the pool of potential school leaders and teachers is large enough to support continued turnover and expansion is an open question, particularly given the demands of their jobs.

Managing through selection and training, not compliance monitoring

The autonomy granted KIPP leaders and teachers occurs within a context defined by careful selection of personnel and intensive training in KIPP's principles. Rather than specifying programs and practices, KIPP hires school leaders who appear to be a good match with its approach and teaches them both the theory behind the principles and what they can look like in practice. As a consequence, many traditional district management functions are unnecessary. KIPP has no set of rules that invites compliance monitoring. Nor does it prescribe practices or programs and concern itself with tracking fidelity of implementation.

Ultimate accountability for results is also part of this equation, one that school leaders sign on to when they take the job. But it is not the external accountability that drives day-to-day operations; it is internal or professional accountability. The Bay Area KIPP schools reflect KIPP's motto of "no shortcuts" and "hard work." Lower than intended test scores lead to closer inspection of problems and discussion of individual students' needs rather than a search for a new program that promises a quick fix.

In addition to their role in hiring and training school leaders, the KIPP Foundation provides a range of supports to its network of schools. It does so in two key ways. One is by encouraging networking among the schools through formal gatherings and informal communication. The other is by maintaining feedback loops that keep the Foundation informed about issues that may require additional training, support, or

problem solving. Districts would benefit from developing similar ways of obtaining feedback and targeting assistance as needed.

Learning more from KIPP schools: questions that merit further investigation

Much is still to be learned from studying KIPP. This study was limited to the five KIPP schools in the San Francisco Bay Area during their start-up years. Our most rigorous analysis of achievement effects was based on an even smaller sample of three schools. We identify five questions that could shed further light on the operation and impact of KIPP schools and their implications for other schools and districts:

- How typical are the five Bay Area KIPP schools of the larger network of KIPP schools in terms of achievement outcomes and implementation?

- What are the causes and implications of student attrition, including residual effects on students who attend for 1 or 2 years?

- Are KIPP schools sustainable, given job demands, teacher turnover, and needs for additional funding?

- What structures and roles will KIPP regional entities take on as KIPP expands?

- Will KIPP be successful in its long-term goal of getting students into college?

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KIPP has attracted considerable attention, both positive and negative. This in itself suggests the value of learning more about its operations and impacts. Clearly, the Bay Area KIPP schools have achieved some measures of success on many fronts. Our findings indicate several areas that offer valuable lessons to other schools and to school districts. Although their experiences do not directly map onto those of other schools and districts, the Bay Area KIPP schools exemplify what they preach: High expectations and hard work pay off. There are no shortcuts.

INTRODUCTION

The Knowledge Is Power Program (KIPP), begun in 1994, now comprises a national network of almost 50 middle schools and a small but growing number of high schools and elementary schools. Under the umbrella of the KIPP Foundation, KIPP schools operate independently in low-income communities. All are public schools, and almost all are charter schools.

KIPP founders set high goals: to prepare poor and minority students to succeed in a college preparatory curriculum in high school and go on to college. They chose to focus on the middle school grades, a time when test scores tend to dip nationwide.[1]

KIPP has attracted considerable attention in the last few years. The media laud it for the higher than expected test scores achieved given the student populations served, for the dramatic increase in instructional time, and for its goal of preparing students for college. At the same time, KIPP is accused of creaming the most successful students from high-poverty public schools, for using harsh disciplinary practices, and for focusing on test preparation. Neither the praise nor the criticism has been closely scrutinized.[2]

Impressed by the publicly available achievement data, The William and Flora Hewlett Foundation asked SRI International to study the achievement results and methods of operation of the five KIPP schools in the San Francisco Bay Area. In fall 2004, we began a 3-year study to document what KIPP looks like in the five schools. We sought to determine how and the extent to which KIPP's "pillars" (or principles) are implemented, their impacts on students, and the lessons KIPP schools have to offer for other public school systems.

This final report covers the 3 school years from fall 2004 through spring 2007. In 2006, we issued an interim report focused on the early implementation of the KIPP approach in the Bay Area. The interim report presented descriptive information about KIPP, including examples of discipline systems and commitments made by students, parents, and teachers, which we do not repeat here.[3] Instead, this report includes much more extensive test score analysis and draws on surveys of students and teachers in all five schools.

WHAT IS KIPP?

KIPP's mission is to equip students, primarily those from low-income and minority families, "with the knowledge, skills, and character traits needed to succeed in top quality high schools, colleges, and the competitive world beyond."[4] Each school has a principal, called a school leader, recruited and trained by the KIPP Foundation, which was established to replicate the KIPP approach and support outstanding teachers to become school leaders who open KIPP schools in underresourced communities. Since 2006,

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[1] Middle school is the time when students in the United States generally begin to experience declining performance compared with their peers in other wealthy nations (Juvonen, Le, Kaganoff, Augustine, & Constant, 2004).

[2] Exceptions include small-scale studies conducted since we launched this study in 2004 (e.g., see Gallagher & Ross, 2005; Mac Iver & Farley-Ripple, 2007). Moreover, the KIPP Foundation recently awarded a contract for a rigorous national evaluation of the effect of KIPP schools on student achievement.

[3] SRI's interim report is available online at http://policyweb.sri.com/cep/.

[4] KIPP Foundation, 2008.

Bay Area school leaders have received additional support from KIPP Bay Area Schools, a regional entity established to provide direct support to schools.

Every KIPP school operates according to a set of principles, called the "Five Pillars," that define the KIPP approach. *Choice and Commitment* reflects the assumption that students, parents, and faculty choose KIPP and commit to its program. KIPP schools maintain *High Expectations* for academic achievement and a culture that includes a system of rewards and consequences for behavior. Key to the academic program is *More Time*—an extended school day of at least 9 hours, augmented by school on Saturday and in the summer. School leaders have the *Power to Lead*, with total control over their budgets and personnel. Finally, the KIPP Foundation expects KIPP schools to have a singular *Focus on Results*, demonstrated by student performance on standardized tests and by preparation of students for success in high school and college.[5]

STUDY DESIGN AND METHODS

Our study was designed to describe the implementation and impact of KIPP in five Bay Area middle schools over 3 years. Two key questions guided our research: (1) To what extent are KIPP's five pillars in place? and (2) What is KIPP's impact on student achievement? We also set out to judge the extent to which the findings have implications for other public schools and school systems. Specifically the study goals were to:

- Assess KIPP *effectiveness* through rigorous analysis.

- Examine the role of *leadership* both at the Bay Area KIPP schools and at the KIPP Foundation level, with particular focus on instructional leadership and the leaders' role in staffing the schools and fundraising in California.

- Document how the KIPP *culture* is put in place and how it is adapted as more grades are added to existing schools.

- Understand how *curriculum* and *instruction* are designed to ensure that students are prepared for high school and college.

Each of these goals maps to one or more of the five KIPP pillars: Assessing effectiveness reflects Focus on Results. Understanding the role of leadership focuses on Power to Lead. Putting the KIPP culture in place mirrors High Expectations and Choice and Commitment. Curriculum and instruction look to High Expectations and More Time, as well as Focus on Results.

We relied on multiple sources of data over the course of the study, including extensive interviews, focus groups, observations of a range of activities and events, teacher and student surveys, and review of student test scores. In writing this report, we relied primarily on data collected since the publication of our interim report in March 2006.

Interviews. From spring 2006 through summer 2007, we conducted 65 interviews with teachers and leaders. These include interviews with eight leaders at the KIPP Foundation and the Executive Director of KIPP Bay Area Schools, and two interviews with each of the leaders of the five Bay Area schools (one in summer 2006 and one in summer 2007). We interviewed additional school administrators or assistant principals—APs (e.g., deans of instruction, chief operating officers) at each school, for a total of 11.[6] (These included interviews with APs who were preparing to take on the school leader role.) We also interviewed six to eight teachers from each school (for a total of 35); the teachers were selected to represent a range of content areas, grade levels, and years of experience at the school.

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[5] See Appendix A for a fuller description of the Five Pillars.
[6] At each of the Bay Area KIPP schools, staff members play various roles and have different titles, including dean of instruction, dean of students, dean of culture, dean of academics, chief operating officer, and AP. To protect the identities of individuals, we use the term "AP" throughout this report to subsume all these titles.

We conducted the interviews using semistructured protocols, recording and then transcribing the interviews. The transcribed interviews were then coded by broad categories (e.g., instructional leadership, behavior management, curriculum) and analyzed both for common themes and for variation across the five sites. To illustrate findings, we have selected quotations from the interviews that represent the perspectives of multiple informants. Although we present minority views, quotations that represent outlier perspectives are not included.

Surveys. In spring 2007, we administered surveys to teachers and students. We sent an online survey to the universe of 77 teachers working at Bay Area KIPP schools at that time; 66 teachers completed the survey, for a response rate of 86 percent. (The response rates ranged from 71 to 100 percent across the five schools.) Members of our research team visited each school to administer the student survey to the universe of 866 students enrolled in grades 6, 7, and 8. A total of 714 students completed the survey, for a response rate of 82 percent. (The response rates ranged from 65 to 89 percent across the five schools.) Students did not complete the survey for a number of reasons, including lack of parental consent, lack of student assent, and absence from school on the day the surveys were administered.

In developing specific survey items, we drew on existing survey instruments that aligned with our research goals.[7] To take advantage of findings from prior studies that could provide a frame of reference for interpreting our results, we matched our survey items with existing survey instruments when possible. However, because we tailored the survey to the KIPP context, most survey items were unique to this study.

To analyze the survey responses, we generated frequencies, means, and measures of variance for each item in the aggregate and for each school. In presenting data in this report, aggregate frequencies (for categorical variables) are presented as an average across the five schools; that is, each school's total frequency is weighted equally in our aggregate numbers. With this approach, schools with larger staffs or more students do not overwhelm smaller schools in our aggregate reporting. For continuous variables (on the teacher survey), we opted to report medians for the full sample of teachers. Finally, in examining the results of the teacher survey, it is important to keep in mind that the five schools, and their faculties, are small. Percentages therefore should be interpreted cautiously, especially for breakdowns by individual schools.

Observations. Throughout the study, we conducted observations of a range of activities and events, including 10 full-day time-use observations during the school day, as well as observations of summer school, school leader training, and school-based professional development. This report primarily draws on our observations made in summer 2006, including half-day observations of summer school and school-based professional development at three schools. One researcher conducted each observation, taking continuous detailed notes to document the nature of the activity and the actions of participants. The focus of the observations was two-fold: (1) to better understand the strategies used to immerse new teachers and students in the KIPP culture, and (2) to become familiar with the content of school-based professional development, as well as with the ways in which KIPP educators worked together around instructional issues.

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[7] For the teacher survey, we drew on the National Center for Education Statistic's *Schools and Staffing Survey* (2004a); the Consortium on Chicago School Research's (CCSR's) *Survey of Chicago Public Schools, Elementary School Teacher Edition* (2005a); and teacher surveys for the Bay Area School Reform Collaborative (BASRC) developed by Stanford's Center for Research on the Context of Teaching (2002). For the student survey, we drew on CCSR's Survey of Chicago Public Schools, Elementary Student Edition (2005b; 2005c) and the U.S. Census Bureau's School Crime Supplement to the National Crime Victimization Survey (2005). Because student surveys at the high school level are more prevalent, we also examined publicly available reports that included survey data from high school students (e.g., Rhodes et al., 2005; Rubenstein, Reisner, Coon, & Fabiano, 2005; Shear et al., 2005).

Student Achievement Data. We based our analyses of student achievement both on a nationally normed test, the Stanford Achievement Test, 10th Edition (SAT10), and on the California Standards Test (CST). We obtained SAT10 data from the KIPP Foundation for all students who attended a Bay Area KIPP school from fall 2003 through spring 2007. We accessed publicly available CST data from the California Department of Education's (CDE's) Web site. Finally, we worked closely with two districts, which are hosts to three of the five KIPP schools, to obtain student-level CST data for *all* students (KIPP and non-KIPP) who were enrolled in district schools as fifth graders in fall 2003 and fall 2004.[8] We used the student-level CST data to determine who among district students goes to the KIPP schools in the districts and to construct a comparison group, using propensity score matching, against which we could assess KIPP student achievement. More details on our student achievement analyses appear in Chapter 2.

For all analyses, our goal was to document KIPP implementation and report on student achievement across the five schools, noting similarities and differences. We did not evaluate individual schools, and we have made every effort to protect the identity of the schools and individual respondents (e.g., gender-specific pronouns are used randomly). We name schools only when reporting publicly available data (i.e., student achievement and student and teacher demographic data that are available through CDE). In all other cases, we either avoid labeling individual schools or we use aliases (e.g., School A, School B).

THE BAY AREA KIPP MIDDLE SCHOOLS

Five KIPP middle schools operate in the San Francisco Bay Area. The first school opened in 2002 and the most recent opened in 2004. In 2006-07, each school was staffed by a school leader, one or more additional administrators, and between 13 and 20 teachers. Together, they served more than 1,300 students in grades 5 through 8.

School Characteristics. All five Bay Area KIPP schools operate as charter schools chartered through their local school district.[9] Since this study began in 2004, the Bay Area KIPP schools have grown from start-up schools, serving one to three grades, to full-sized middle schools serving grades 5 through 8. When each school opened, it served approximately 80 students; by 2006-07, enrollment at each had grown to between 239 and 328 students (see Exhibit 1-1). In 2007-08, three of the five schools continued to be run by their founding school leaders. A fourth school switched leaders during its first year in 2002-03 but has had the same leader since then. The leader of the fifth school left to launch a KIPP high school, and the AP assumed the principal's position.

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[8] The other two host districts were unable to provide us with student-level data.
[9] Summit Academy operated under a charter from the state when it opened in 2003-04. It has been operating under a charter from San Lorenzo Unified School District since 2006.

Exhibit 1-1
Snapshot of Bay Area KIPP Schools, 2006-07

	Bayview Academy	Bridge College Preparatory Academy	Heartwood Academy	San Francisco Bay Academy	Summit Academy
Established	2003	2002[a]	2004	2003	2003
District/charter authorizer	San Francisco Unified	Oakland Unified	Alum Rock Union Elementary	San Francisco Unified	San Lorenzo Unified
Grades served	5 to 8	5 to 8	5 to 7	5 to 8	5 to 8
Total enrollment[b]	241	248	239	257	328
Number of teachers[c]	20	14	13	14	16

[a] KIPP Bridge College Preparatory Academy operated under the name KIPP Oak Academy in 2002-03. The school changed principals, locations, and name before the 2003-04 school year.
[b] California Department of Education, 2008a.
[c] SRI database of Bay Area KIPP teachers, confirmed by principals in spring 2007. Note that the precise number of teachers working at the Bay Area KIPP schools fluctuated over the course of the year as a result of teacher turnover and changes in assignments.

Although the five schools share the KIPP mission and operate according to KIPP's Five Pillars, each school has a unique identity shaped by the community in which it operates (see Exhibit 1-2).

Exhibit 1-2
The Communities the Bay Area KIPP Schools Serve

The oldest Bay Area KIPP school, Bridge College Preparatory Academy, is in west Oakland—a community that is majority African-American, with Asian and Latino minorities.[a] The school loses students as some African-American families from the neighborhood move to communities further east with more affordable housing. At the same time, Bridge College Preparatory Academy is attracting many middle class African-American families who are transferring their children from parochial schools. As a result, although the school recruits in west Oakland only, students now come from throughout the city. The school is thus experiencing a wider socioeconomic range among its students as it continues to draw both from the poorer families that remain in west Oakland and from middle class families that reside throughout the city.

San Francisco has two KIPP schools, Bayview Academy and San Francisco Bay Academy (SF Bay Academy). Bayview Academy is in the Bayview-Hunters Point neighborhood in southeast San Francisco. The neighborhood faces many challenges, including high poverty, drugs, crime, and gang violence.[b] Historically a majority African-American community, Bayview-Hunters Point is changing quickly as African-American families move out in search of more affordable housing, better schools, and safer neighborhoods in the East Bay and Central Valley.[c] They are being replaced by Asian and Latino families who find the house prices relatively affordable compared with other neighborhoods in the city.[c] As African-American families move out of the city, Bayview Academy struggles to recruit students and is increasingly conducting outreach to the Chinese community that resides in the southeastern part of the city.

The other KIPP school in San Francisco is SF Bay Academy, located centrally in the city's Western Addition neighborhood. As is the case in Bayview Academy's neighborhood, crime and violence are pervasive in the neighborhood surrounding SF Bay Academy.[d] Although the school draws its students from across the city, most are from the local neighborhood, as well as a predominantly Latino neighborhood in the southern part of the city.[d] The school provides bus transportation for the students who reside in this southern neighborhood. The school's student demographic has shifted: the percentage of Latino students has increased (from 17 percent in 2004-05 to 39 percent in 2006-07), and the percentage of African-American students has declined (from 57 percent in 2004-05 to 40 percent in 2006-07).[e]

Summit Academy is in the East Bay community of San Lorenzo in a working class neighborhood. The school is the most racially and ethnically diverse of the five Bay Area KIPP schools. More than half the students are Latino or African-American—a figure that has remained steady since the school opened. Recently, the school has experienced a large influx of Asian students (from 11 percent in 2005-06 to 31 percent in 2006-07) along with a decline in the proportion of white students (from 19 percent in 2005-06 to 10 percent in 2006-07). Like the KIPP schools in San Francisco and Oakland, Summit Academy loses students as families move out of the area in search of more affordable housing further east and in the Central Valley.

The newest Bay Area KIPP middle school is Heartwood Academy in the Alum Rock neighborhood in east San Jose. The majority of the population in Alum Rock is Latino, followed by Asian—primarily Vietnamese and Filipino. It is a largely immigrant community—more than one-third of residents in Alum Rock are foreign born. The school shares a campus with a K-5 elementary school, from which it draws approximately 20 percent of its students.[f] The rest of the students come from throughout Alum Rock and greater east San Jose.

[a]Demographic data come from the U.S. Census Bureau (2000) and are based on the zip code in which each KIPP school is located. We used zip codes as proxies for neighborhoods to provide consistent data across the five schools.
[b]Lelchuk, 2006.
[c]Katz, 2006; McNamara, 2006.
[d]KIPP San Francisco Bay Academy, 2006.
[e]Student demographic data were obtained from the California Department of Education (2008a).
[f]The school name is Learning in an Urban Community with High Achievement (L.U.C.H.A.), a small school of choice in the Alum Rock school district, established by the ACE (Achievement, Choice, Equity) Public School Network.

Student Characteristics. Consistent with the KIPP mission, the Bay Area KIPP schools serve predominantly poor and minority students (see Exhibit 1-3). In 2006-07, across the five Bay Area KIPP schools, the percentage of students qualifying for the Free and Reduced-Price Meals Program (FRPM) ranged from 63 to 81 percent. Although each Bay Area KIPP school's student body consists almost entirely of students of color, the specific racial and ethnic composition of the student body varies from school to school. Across the schools, the percentage of African-American students ranged from 5 to 74 percent, and the percentage of Latino students ranged from 7 to 73 percent. Two of the Bay Area KIPP schools serve a significant population of Asian students: in 2006-07, 18 percent of Heartwood Academy's students and 31 percent of Summit Academy's students were Asian. All five schools served larger percentages of nonwhite students than their host districts.

Exhibit 1-3
KIPP School Student Demographics, 2006-07

	Percent FRPM[a]	Percent African-American	Percent Latino	Percent White	Percent Asian	Percent English Learners	Percent Special Education[b]	Percent Female	Total Enrollment
San Francisco Unified	*57*	*12*	*21*	*9*	*41*	*28*	*11*	*48*	*56,183*
Bayview Academy	80	61	7	1	8	3	11	54	241
SF Bay Academy	81	40	39	3	4	14	10	52	257
Oakland Unified	*70*	*38*	*35*	*6*	*14*	*28*	*10*	*49*	*47,012*
Bridge College Preparatory Academy	63	74	15	2	2	5	6	53	248
Alum Rock Union Elementary	*89*	*2*	*77*	*3*	*10*	*60*	*10*	*48*	*13,562*
Heartwood Academy	81	5	73	2	18	26	5	54	239
San Lorenzo Unified	*45*	*16*	*46*	*17*	*11*	*31*	*10*	*48*	*11,858*
Summit Academy	63	14	40	10	31	33	7	48	328

[a] FRPM rates are not an accurate reflection of family poverty for high school students because those students are less likely to sign up than are other, younger students; accordingly, the rates for unified districts (Oakland, San Francisco, and San Leandro) are probably underestimates.
[b] Percent Special Education is based on special education enrollment divided by total enrollment; because of missing state data, Summit Academy's percent special education comes from KIPP Bay Area Schools.
Source: California Department of Education, 2008a, 2008b.

In 2006-07, four of the five Bay Area KIPP schools served lower percentages of special education students than their host districts, and four of the five KIPP schools served smaller proportions of English learners than the districts in which they are located. Three schools, Bayview Academy, SF Bay Academy, and Bridge College Preparatory Academy, had a lower percentage of English learners than their districts because the schools served relatively high percentages of African-American students and relatively low percentages of Asian students (who may be English learners) compared with their host districts. At Heartwood Academy, although the school population is nearly all Latino and Asian, the students were classified as English learners at much lower rates than for the district as a whole (26 percent at Heartwood Academy compared with 60 percent in the district overall). In 2004-05, 56 percent of fifth graders at Heartwood Academy were classified as English learners, but Heartwood has since redesignated many of these students as English-proficient. Finally, four of the five Bay Area KIPP schools enrolled more girls than boys, despite being located in districts that served more boys than girls.

In our discussion of the academic achievement of Bay Area KIPP students (Chapter 2), we present additional data on the characteristics of the students who enroll in KIPP, including entering achievement levels; and, for three schools, prior achievement of KIPP students compared with their counterparts who do not attend KIPP.

Teacher Characteristics. Teachers come to the Bay Area KIPP middle schools with strong academic backgrounds and limited classroom experience. Among teachers working at Bay Area KIPP schools in 2006-07, more than half (56 percent) attended the nation's most selective or highly selective colleges.[10] Our teacher survey indicated that they tend to be young—the median age in 2006-07 was 27.5—with a median of 3 years of teaching experience before joining KIPP. Fewer than 1 in 10 Bay Area KIPP teachers (9 percent) had no teaching experience before joining KIPP.

The Bay Area KIPP teachers tend to take nontraditional routes into the profession; in fact, 70 percent, with percents ranging from a low of 50 to a high of 80 across the five schools, reported beginning teaching before earning their teaching credentials. Approximately one-third participated in the Teach for America (TFA) program, in which corps members obtain a credential while they teach; across the five schools, the percentage of TFA alumna ranged from 15 to 45 percent. At the time of our survey, nearly one-fourth of Bay Area KIPP teachers reported that they did not hold a teaching credential. Teaching without a preliminary or professional clear credential is not unusual in California, especially among new teachers. In 2006-07, 5 percent of the total teacher workforce and 23 percent of first- and second-year teachers held neither a preliminary nor a professional clear credential.[11]

Like teachers across the state and in the districts that are home to the Bay Area KIPP schools, in 2006-07, most Bay Area KIPP teachers were female (72 percent for both the Bay Area KIPP schools and the state as a whole).[12] Likewise, more than half of the Bay Area KIPP teachers (54 percent) were white; statewide, nearly three-fourths (72 percent) were white. Although only 13 percent of Bay Area KIPP teachers in 2006-07 were African-American, this was more than double the statewide 5 percent. Eight percent of KIPP teachers were Latino compared with 16 percent for the state overall.

ORGANIZATION OF THE REPORT

Chapter 2 presents the results of a series of analyses of two sets of student test scores (the SAT10 and the CST), including an assessment of the impact of KIPP student achievement. Chapter 3 describes what school leaders do, including the key functions of hiring and retaining teachers, providing instructional leadership and support, and fundraising. Chapter 4 describes the KIPP school culture, including how the schools establish high expectations and develop behavior management systems during their start-up years. Chapter 5 examines the schools' curriculum and instruction and how it is determined in the absence of any KIPP specifications. Finally, Chapter 6 presents our conclusions and draws lessons for other public schools and school systems from the KIPP experience.

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[10] Based on Barron's rankings of college selectivity, where "most selective" and "highly selective" are the top two of seven categories. Although we were unable to find comparable data for California, relatively recent studies from Illinois (DeAngelis & Presley, 2007) and New York (Lankford, Loeb, & Wycoff, 2002) show that teachers in these states were much less likely than the Bay Area KIPP teachers to have attended such selective universities. For example, in Illinois, in 2006, only 9.6 percent of elementary and middle school teachers attended highly selective colleges. In New York, in 2000, only 8.8 percent of teachers at the typical (or median) school attended highly selective colleges.
[11] Wechsler et al., 2007.
[12] California Department of Education, 2008c.

STUDENT ACHIEVEMENT

KIPP has a growing national reputation for achieving academic success for its predominantly poor and minority student population. KIPP's own Report Card displays gains for many KIPP schools, based on changes in percentile rank on a nationally normed standardized test.[13] At least two studies of KIPP have gone further; they compare the achievement of KIPP students with similar students and find significantly better outcomes for KIPP students.[14] KIPP's ultimate goal is to have students attend college. Because few KIPP students have reached college age, however, it is too soon to tell if KIPP is meeting this goal.[15]

A critical question is whether or not student achievement gains can be attributed to KIPP: Do KIPP students perform better than they would have had they not attended KIPP? In the absence of rigorously constructed comparison groups, analyses comparing the performance of KIPP and non-KIPP students cannot rule out prior differences between the two groups. That KIPP students' families choose to enroll their children in KIPP schools further complicates most simple comparisons because of self-selection biases.

To estimate the impact of the five Bay Area KIPP schools on student achievement, we conducted several analyses using different sets of data to arrive at as complete a picture as possible. We have organized our findings around three overarching questions:

- *What are the entering test scores of all students who enter KIPP schools and of those students who remain in the program*? We want to determine whether the test scores of students who enroll in KIPP schools differ from those of their peers who do not attend KIPP schools (to assess the degree of validity, if any, of the creaming phenomenon), and whether the scores of those who remain in KIPP differ from those students who leave before completing eighth grade. As part of this investigation, we also ask how many, and at what point, students leave KIPP schools.

- *How do KIPP's achievement results compare with (1) national norms, and (2) state and district results*? We also want to assess whether KIPP seventh and eighth graders appear to be on track for college as judged against California's standards. We have relied on KIPP students' scores on Stanford Achievement Test, 10th Edition (SAT10), and on publicly available California Standards Test (CST) results for these comparisons.

- *Are KIPP achievement gains attributable to KIPP?* To address this question, for a subset of three KIPP schools, we have relied on student-level demographic and CST data to construct comparison groups by using propensity score matching. Comparing the performance of KIPP and comparable non-KIPP students enables us to estimate what the average test scores of KIPP students would have been had they attended their local district schools instead of KIPP schools. We characterize the analysis as a case study because only two of the four local districts, host to three of the five KIPP schools, were able to provide us with individual student data, and because we included only two cohorts of students. The three schools are not necessarily representative of

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[13] KIPP Foundation, 2006.

[14] Mac Iver and Farley-Ripple (2007) examined student outcomes for Baltimore's KIPP Ujima Village Academy compared with students attending KIPP feeder schools, and Gallagher and Ross (2005) evaluated student performance at the KIPP DIAMOND Academy in Memphis compared with matched control group students.

[15] Only two KIPP schools, those started by KIPP's founders, have existed long enough to have alumni who have reached college age.

the five Bay Area KIPP schools, given that each serves a unique student population and that the implementation of the KIPP approach varies at each of the schools (as described in the remainder of this report). Nor should the two cohorts included in these analyses—among the first served by the Bay Area schools—be considered representative of subsequent cohorts.

In brief, we find that in most grades and cohorts, KIPP students make above-average progress compared with national norms, but with considerable variation across schools, grade levels, cohorts, and subjects. The largest gains tend to be in fifth and sixth grades and in mathematics. Our most rigorous analysis, comparing KIPP students with matched comparison students, provides convincing evidence that KIPP has large and statistically significant effects on the academic achievement of fifth-grade students and *new* sixth-grade students. At the same time, we find that attrition rates are high and that those who leave KIPP start out lower performing and benefit less from their time at the schools than those who stay.

WHAT ARE THE ENTERING SCORES OF STUDENTS WHO ATTEND BAY AREA KIPP SCHOOLS AND OF THOSE WHO STAY?

The demographic data presented in Chapter 1 demonstrate that KIPP is serving predominantly low-income and minority students. Here, we look at the incoming test scores of students to get a sense of average performance levels of entering students across schools, and whether those levels change across years. We explore the prior achievement of students who attend KIPP in comparison with students in the same host district and neighborhood who do not choose KIPP. Finally, we examine the incoming performance of students who leave KIPP before completing eighth grade compared with the performance of those who stay.

Average entering fifth-grade test scores range from the 9th to the 60th national percentile across the five KIPP schools.

Each Bay Area KIPP school administers the SAT10 in the fall of fifth grade. The performance of incoming fifth graders in 2006-07 (Cohort 2006) varied substantially across the five schools (see Exhibit 2-1), suggesting that the schools are serving quite different student populations. With one exception, the average scores are well below the 50th national percentile ranking (i.e., below the scores of 50 percent of all test-takers nationally).

Exhibit 2-1
Grade 5 Fall National Percentile Ranks of the
Average Normal Curve Equivalent (NCE) Scores, Cohort 2006, by School
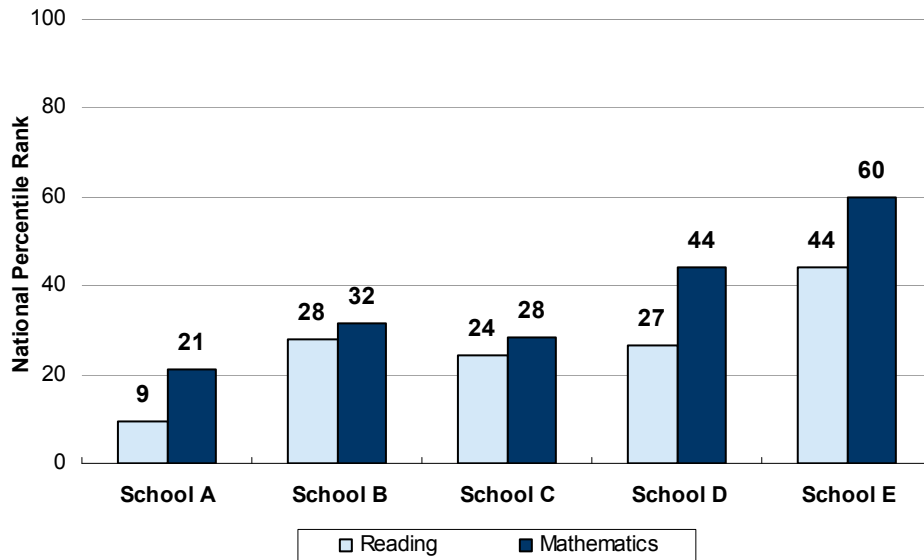
Note: School D tested students in early August, before they attended summer school,
whereas the other four schools tested students in early September, after they attended
summer school and the initial week or 2 of school.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Bay Area KIPP schools do not appear to have attracted higher scoring students over time, and the three schools for which we have comparison data have attracted lower scoring and more minority students relative to the neighborhood population.

KIPP school leaders express concern that as KIPP establishes a reputation, their schools might begin attracting higher scoring students; others question whether KIPP already attracts relatively high performing students from low-income communities (sometimes referred to as creaming). Over the years, the SAT10 scores of incoming fifth graders have fluctuated, with no clear pattern (see Exhibit B-1 in Appendix B). Because KIPP schools take all who apply (or, if the number of applicants exceed the places available, choose students by lottery), attracting higher scoring students is cause for concern. However, our analysis of the prior achievement of students attending three of the Bay Area KIPP schools suggests that this is not the case. Students enrolled in the three KIPP schools for which we have comparative district data had lower fourth-grade CST scores than the average non-KIPP student in those districts (see Exhibit 2-2).

Exhibit 2-2
Fourth Grade English Language Arts (ELA) and Mathematics Scores for Students Who Enrolled in KIPP Schools in Fifth Grade Compared with Non-KIPP Students in the Same District
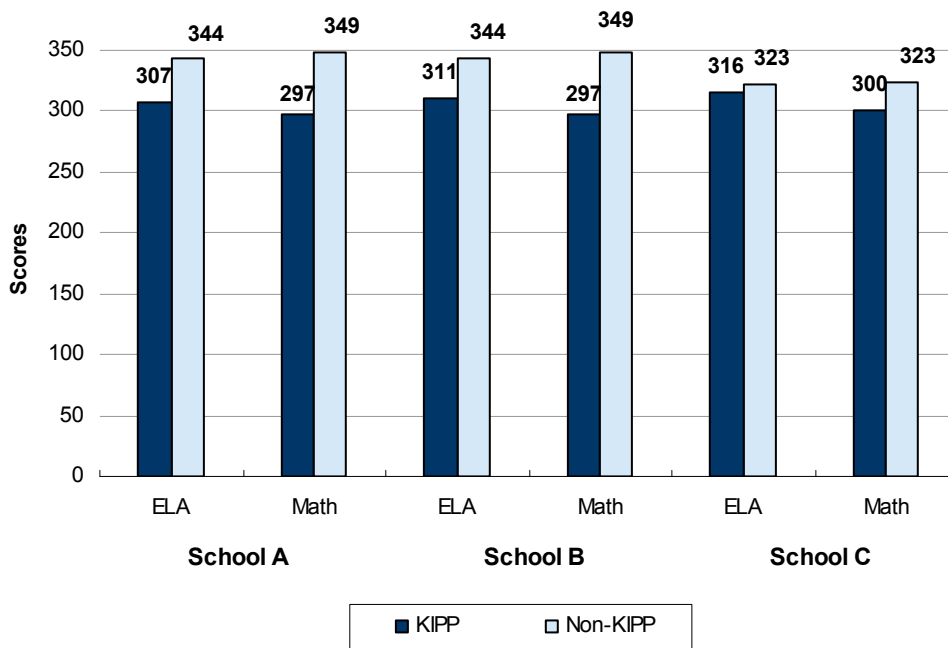
Note: All differences are statistically significant with p<.05.
See Exhibit B-2 for information on the demographic characteristics of KIPP and non-KIPP students and for information on sample sizes.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

To further assess whether KIPP schools attract relatively high achieving students, we used student demographic and CST data to estimate the factors that predict a student's attendance in a specific KIPP school. We did this separately for each of the three schools for which we had comparative data, and we limited comparisons to students who lived in the same neighborhood (as defined by zip code). In general, students with lower prior achievement in ELA or mathematics were more likely to attend each of three KIPP schools, compared with other same-grade students in the same neighborhood. In addition, even when controlling for prior achievement and other demographic characteristics, African-American students were more likely than their non-African-American peers in the same neighborhood to attend each of the three KIPP schools. (Exhibit B-3 presents the logistic regression results for each of the three KIPP schools.)

Student enrollment in Bay Area KIPP schools declines after the sixth grade.

We examined student enrollment and attrition trends as a first step toward assessing whether the test scores of students who remain in KIPP differ from those who leave before completing the eighth grade. The first cohorts of Bay Area KIPP students (Cohorts 2003 and 2004) reached the seventh and eighth grades in 2006-07. In three of the four schools with a cohort that began in 2003-04, eighth-grade enrollment was less than one-half of fifth-grade enrollment. Together, the four schools began with a combined total of 312 fifth graders in 2003-04, and ended with 173 eighth graders in 2006-07 (see Exhibit 2-3). The number of eighth graders includes new students who entered KIPP after fifth grade. Subsequent cohorts are also experiencing declining enrollment—in most cases to a lesser extent. Although the Bay Area KIPP schools have continued to enroll substantial numbers of new students in the sixth grade, they have been less likely to do so in the seventh and eighth grades. This practice, combined with relatively high rates of student attrition and in-grade retention, explains the declining enrollment.

Exhibit 2-3
Bay Area KIPP Student Enrollment, 2003-04 to 2006-07

		Grade 5	Grade 6	Grade 7	Grade 8
Bayview Academy	**Cohort 2003**	81	85	55	40
	Cohort 2004	76	88	58	
	Cohort 2005	69	79		
	Cohort 2006	64			
Bridge College Preparatory Academy	**Cohort 2002**	87	60	50	36
	Cohort 2003	82	78	47	39
	Cohort 2004	76	75	54	
	Cohort 2005	63	73		
	Cohort 2006	82			
Heartwood Academy	**Cohort 2004**	78	79	69	
	Cohort 2005	79	88		
	Cohort 2006	82			
SF Bay Academy	**Cohort 2003**	73	78	56	33
	Cohort 2004	49	75	55	
	Cohort 2005	50	84		
	Cohort 2006	85			
Summit Academy	**Cohort 2003**	76	78	80	61
	Cohort 2004	71	80	86	
	Cohort 2005	81	89		
	Cohort 2006	92			

Source: California Department of Education, 2008a.

Exhibit 2-4 shows the percentages of students who leave KIPP at each grade for each cohort of students who started KIPP in fifth grade.[16] Of the students who entered fifth grade in 2003-04 (Cohort 2003), 24 percent left KIPP during or immediately following fifth grade. Similarly, 18 and 12 percent of students who entered in fifth grade left during or immediately following sixth and seventh grade, respectively, and 6 percent left during eighth grade. Overall, 60 percent of students who had enrolled in fifth grade left KIPP before the end of eighth grade. To put these attrition rates in context, we examined the rates at which students in the same cohorts left two of the host school districts. In one district, 22 percent of students who were enrolled in fifth grade left the district before completing eighth grade; in the other district, 50 percent left. These district-level attrition rates do not take into account student mobility among schools in the same district.

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[16] Note that the numbers in Exhibits 2-2 and 2-3 are slightly different because they come from different sources.

Because new students enter after the fifth grade, mostly in sixth grade, this exit rate does not necessarily result in eighth-grade enrollment that is 40 percent of fifth-grade enrollment. In fact, as described above, the eighth-grade class in 2006-07 slightly exceeded half (55 percent) the size of the fifth-grade class across four schools. In later cohorts, a smaller percentage of students left during fifth grade, whereas similar percentages of students left during sixth and seventh grades. The total percentages for later cohorts are smaller mainly because students had not yet reached the higher grades.

Exhibit 2-4
Percentage of Students Leaving KIPP Through 2006-07, by Grade and Cohort

	Number of Students in Grade 5 Cohort	Percent of Students who Left KIPP During or Immediately After			Percent of Students who Left KIPP During Grade 8	Total Percent of Students who Left KIPP
		Grade 5	Grade 6	Grade 7		
Cohort 2003	314	24	18	12	6	60
Cohort 2004	362	15	18	12	NA	46
Cohort 2005	351	8	19	NA	NA	27
Cohort 2006	379	11	NA	NA	NA	11

Notes: (1) Leaving rates for students who were retained are based on their actual grade at the time of departure from KIPP. (2) NA indicates not applicable, indicating that students had not yet reached the grade by 2006-07.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Students' rates of departure appear to vary somewhat by school. For the cohort of students who entered fifth grade in 2004 (the first cohort served by all five schools), leavers ranged from 33 to 54 percent by seventh grade, with an average of 46 percent (see Exhibit B-4 in Appendix B).

In 2006, KIPP Foundation staff asked each Bay Area school leader to confirm that students missing test data had actually left the school and, if they had left, to provide a reason for their departure. The school leaders reported on the 306 students who had left their schools before completing the 2005-06 school year. In the aggregate, they reported that more than 4 in 10 (42 percent) left because their family moved; nearly 3 in 10 (29 percent) left because KIPP was "not the right fit" for them or their family; and 20 percent left for unspecified reasons. Small numbers left "due to special needs" (3.6 percent) or to avoid grade retention (3.9 percent). Across the five KIPP schools, three students (1 percent) were expelled for disciplinary reasons.

Although an in-depth analysis of why students (or their families) chose to leave the Bay Area KIPP schools—and how stayers and leavers experienced KIPP—was beyond the scope of this study, we did ask school leaders why students left their schools. Whereas most leaders noted that the schools lose many students to family moves, they also elaborated on the issue of fit. As one school leader explained:

> I think for a cohort of students and families, it was harder than they thought it was going to be. Our expectations were more than they had anticipated. [For example,] [w]hen we said we were going to give 2 hours of homework [a day], they didn't really believe that it was going to be that much.

We asked if students left when told they would have to repeat fifth grade, and school leaders noted that only a handful of students fit this category.

The Bay Area KIPP schools retain students who are far below grade level and who teachers and leaders believe would benefit from repeating a grade. School leaders reported that they prefer to retain students in fifth grade rather than sixth, although policies and practices vary. As one school leader said, "We have a very, very good track record with retaining in fifth grade. We have a much less good track record with

retaining in sixth grade." A good track record, he explained, means the student stays and does well. Examination of the retention pattern for the first cohort of students served by all five schools (those students who began fifth grade in 2004) reveals that 9 percent of all fifth graders repeated that grade (see Exhibit B-5). In comparison, 3 percent of students in the same cohort were retained in sixth grade.[17] Across the five schools, 8 to 13 percent of students were retained in fifth grade, whereas the percent retained in sixth grade ranged from 0 to 6 (see Exhibit B-6). These retention rates are higher than those in non-KIPP schools in the two host districts for which we have data, where approximately 1 percent of fifth grade students were retained during the same years.[18]

On average, those who leave KIPP before completing eighth grade have lower test scores on entering KIPP than those who stay.

To assess whether students who stay at KIPP and students who leave KIPP before completing eighth grade differ in terms of student achievement on entering KIPP, we compared the entering fifth-grade scores of those who left KIPP early with those who remained. We found that students who remained at KIPP had higher incoming scores in both reading and mathematics than did their peers who entered KIPP in fifth grade but exited before completing the program (see Exhibit 2-5).

Exhibit 2-5
Average Grade 5 Fall NCE Scores for Students Who Left KIPP Before Completing the Program, Compared with Students Who Remained in KIPP

		Reading Total	SD	N	Mathematics Total	SD	N
Cohort 2003	Students who left KIPP before completing eighth grade	30.8	17.4	180	33.1	16.5	189
	Students who remained in KIPP	39.3	16.6	120	42.1	17	125
Cohort 2004	Students who left KIPP before completing seventh grade	31.8	17.8	159	38.0	17	165
	Students who remained in KIPP	40.0	18.6	193	46.8	18.5	196
Cohort 2005	Students who left KIPP before completing sixth grade	28.9	16.5	93	33.1	14.6	95
	Students who remained in KIPP	34.1	17.1	254	40.6	16.9	254
Cohort 2006	Students who left KIPP before completing fifth grade	30.2	20.2	43	34.6	17.1	45
	Students who remained in KIPP	37.2	17.6	327	44.4	17.9	332

Note: All differences are statistically significant with $p<.05$.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

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[17] SRI analysis of SAT10 data provided by the KIPP Foundation.
[18] SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

We also considered the question from another perspective: Are students with lower scores more likely to exit KIPP? We used fall fifth-grade SAT10 scores to predict those exiting KIPP and found that the probability of a student's leaving KIPP before completing eighth grade is higher for those with lower entering scores. Exhibit 2-6 presents sample probability calculations for entering Reading Total NCE scores of 20, 35, and 50 for students who entered KIPP in fall 2003, the only cohort of students that had reached eighth grade at the time of the study. These analyses show, for example, that a student who enters KIPP with an NCE score of 20 in reading has a 70 percent chance of exiting KIPP before the end of eighth grade, whereas a student who enters KIPP with an NCE score of 50 in reading has a 50 percent chance of exiting. Using the Mathematics Total score as the predictor yielded similar statistically significant results, although mathematics scores are slightly less predictive of leaving KIPP than are reading scores. (Exhibits B-7 and B-8 in Appendix B include the results of both logistic regression models. Exhibit B-9 presents information about how we calculated probabilities and odds ratios.) These findings are correlational and not causal. That is, they do not suggest that students leave KIPP *because* they are lower performing, nor do they suggest that KIPP counsels out lower performing students. As discussed earlier, an in-depth analysis of why students leave KIPP is beyond the scope of this study.

Exhibit 2-6
Reading Total NCE Score at the Start of Grade 5 as a
Predictor of Exiting KIPP Before Completing the Eighth Grade, Cohort 2003
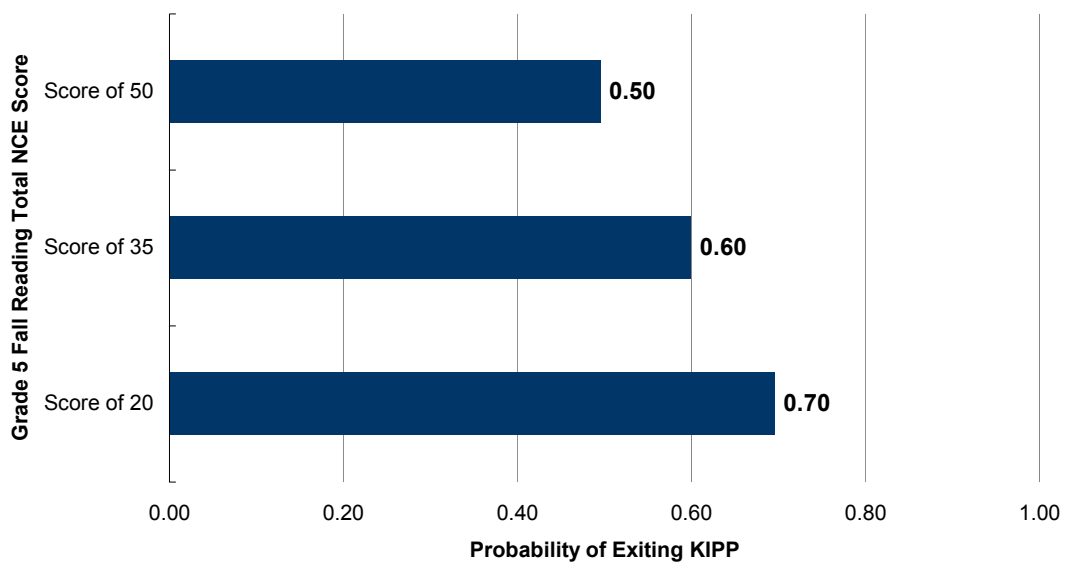
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Finally, we assessed the impact of this attrition on the composition of the KIPP student population in comparison with the host districts. For the three schools for which we have comparative district data, we examined the fourth-grade CST scores for students *who remained at KIPP* and for students who never enrolled in a KIPP school. We found that, in most cases, the average fourth-grade scores of students who remained at KIPP were lower than district averages (see Exhibit B-10), indicating that even after accounting for attrition, these three schools were not attracting high-performing students relative to their host districts.

In the remainder of this chapter, we examine student achievement at KIPP schools over time, as compared with national norms, state and district proficiency levels, and matched comparison groups. In interpreting these longitudinal comparisons, it will be important to keep in mind the magnitude and nature of the attrition described in this section.

HOW DO KIPP'S ACHIEVEMENT RESULTS COMPARE WITH NATIONAL NORMS?

The KIPP Foundation requests that all KIPP schools administer a norm-referenced test to incoming students and at least once each year thereafter. All five Bay Area KIPP middle schools administer the SAT10 as this test, and, although they follow somewhat different testing patterns, most test incoming fifth graders in the fall and all students in the spring.

Bay Area KIPP students make above-average progress compared with national norms; however, gains vary widely across grades, cohorts, subjects, and schools.

To assess progress of Bay Area KIPP students against national norms, we looked at changes in their NCE scores. Because NCE scores are norm-referenced for each grade, no change in NCE score from one test administration to the next indicates average progress; thus, any positive changes indicate above-average progress. Exhibit 2-7 presents average NCE changes for SAT10 Mathematics Total scores for each school, cohort, and grade level. In the great majority of cases (80 percent), NCE changes are positive, indicating that KIPP students make above-average progress compared with national norms.[19] Gains tend to be higher in grades 5 and 6 than in grades 7 and 8. In fact, from fall to spring of fifth grade, NCE changes are positive across all Bay Area KIPP schools and cohorts; at two of the schools (Schools A and E), scores increase by more than one standard deviation.[20] By eighth grade, in the four schools in which students reached eighth grade by 2006-07, the NCE change scores are negligible in two schools and show small decreases in the other two schools by roughly a quarter of a standard deviation. In general, Reading Total scores follow a similar pattern, although gains are slightly smaller with the exception of grade 8 (see Exhibit 2-8).

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[19] Note that test administration dates vary by school and cohort. As the notes below Exhibit 2-6 explain, the interval over which change is measured can be roughly 8 to 12 months (including the summer months), to as much as 20 months in the case of School C.

[20] NCE scores follow a normal curve distribution, with a mean of 50 and a standard deviation of 21.06. Following the normal curve distribution, 68 percent of the test-taker population have scores ranging from 29 to 71 (within one standard deviation of the mean), and 95 percent of the test-takers have scores ranging from 8 to 92 (within two standard deviations of the mean).

Exhibit 2-7
Average SAT10 Mathematics Total NCE Changes Across Each Grade, by School and Cohort

		Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring		Grade 7 Spring-Grade 8 Spring	
School A	Cohort 2003	7.1[a]	**	25.2[b]	**	−1.0		−3.8	**
	Cohort 2004	13.3	**	2.9		5.8	**		
	Cohort 2005	8.4	**	9.1	**				
	Cohort 2006	16.0	**						
School B	Cohort 2003	8.2	**	5.9	**	13.4	**	−1.3	
	Cohort 2004	10.6	**	10.9	**	3.7	*		
	Cohort 2005	27.5	**	−1.1					
	Cohort 2006	25.6	**						
School C	Cohort 2003	11.5[a]	**	NA		8.3[c]	**	−5.5	**
	Cohort 2004	NA		14.2[d]	**	−4.6	**		
	Cohort 2005	5.4	**	4.4	*				
	Cohort 2006	4.4	**						
School D	Cohort 2003	10.8	**	5.4	**	−0.1		−0.9	
	Cohort 2004	10.2	**	4.3	**	0.0			
	Cohort 2005	10.4	**	3.2	*				
	Cohort 2006	12.0	**						
School E	Cohort 2004	24.4	**	3.1	**	0.9			
	Cohort 2005	29.6	**	1.6					
	Cohort 2006	25.1	**						

Notes: NA = not available.
[a] Grade 5 fall-Grade 6 fall.
[b] Grade 6 fall-Grade 6 spring.
[c] Grade 6 fall-Grade 7 spring.
[d] Grade 5 fall-Grade 6 spring.
* Statistically significant with p<.05; ** statistically significant with p<.01
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit 2-8
Average SAT10 Reading Total NCE Changes Across Each Grade, by School and Cohort

		Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring		Grade 7 Spring-Grade 8 Spring
School A	Cohort 2003	4.4[a]	**	15.7[b]	**	-0.4		0.2
	Cohort 2004	7.5	**	3.4		1.8		
	Cohort 2005	7.1	**	-4.3	**			
	Cohort 2006	8.7	**					
School B	Cohort 2003	5.6	**	2.3		11.3	**	0.6
	Cohort 2004	4.9	**	5.2	*	2.2		
	Cohort 2005	20.6	**	-1.6				
	Cohort 2006	13.5	**					
School C	Cohort 2003	5.2[a]	**	NA		3.2[c]	*	-0.5
	Cohort 2004	NA		7.3[d]	**	-3.9	*	
	Cohort 2005	6.0	**	-5.2	*			
	Cohort 2006	5.7	**					
School D	Cohort 2003	4.4	**	3.1	*	-3.1	*	1.6
	Cohort 2004	3.0	*	3.3	*	1.5		
	Cohort 2005	8.4	**	1.4				
	Cohort 2006	11.0	**					
School E	Cohort 2004	15.7	**	5.7	**	-4.9	**	
	Cohort 2005	19.3	**	-1.9				
	Cohort 2006	9.1	**					

Notes: NA = not available.
[a] Grade 5 Fall-Grade 6 Fall
[b] Grade 6 Fall-Grade 6 Spring
[c] Grade 6 Fall-Grade 7 Spring
[d] Grade 5 Fall-Grade 6 Spring
* Statistically significant with p<.05; ** statistically significant with p<.01
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

HOW DO KIPP STUDENTS PERFORM ON STATE TESTS?

Starting in the second grade, all California public school students must take the CST, which is designed to measure the extent to which students have mastered the state standards. Scores are reported on a five-point scale—far below basic, below basic, basic, proficient, and advanced. A score of proficient or above signals that a student has mastered grade-level standards. Performance on the CST informs parents about their children's progress and the public about their schools. CST results also largely determine a school's status in regards to both the state (California's Academic Performance Index) and federal (No Child Left Behind Act) accountability systems.

Most Bay Area KIPP schools outperform their district averages in terms of the percent of students scoring proficient or above on the CST.

In 2006-07, with the exception of one school, higher percentages of Bay Area KIPP students reached proficiency on the CST in both ELA and mathematics across all grades compared with the host districts (see Exhibit 2-9). In many cases, the differences in percentages are substantial. For example, SF Bay Academy's results exceed those of San Francisco Unified by as much as 31 percentage points in fifth-grade mathematics; Summit Academy outperforms its district by as much as 45 percentage points in eighth-grade mathematics; and Heartwood Academy exceeds its district by as much as 66 percentage points in seventh-grade mathematics. The Heartwood Academy results compare seventh graders' performance on the CST Algebra I with performance on the CST General Mathematics for the district as a whole, making the difference all the more remarkable.[21]

Exhibit 2-9
Percentage of Students Scoring Proficient or Above on the CST, Spring 2007

	ELA				Mathematics			
	Grade 5	Grade 6	Grade 7	Grade 8	Grade 5	Grade 6	Grade 7	Grade 8[a]
CALIFORNIA	44	42	46	41	49	42	39	38
San Francisco Unified	49	46	54	49	54	47	54	58
Bayview Academy	21	20	62	57	40	15	53	29
SF Bay Academy	53	62	77	70	85	63	73	73
Oakland Unified	35	25	29	24	41	23	23	22
Bridge College Preparatory Academy	37	34	59	44	52	32	51	32
Alum Rock	32	28	34	29	41	29	29	42[b]
Heartwood Academy	67	59	99	NA	96	85	95[c]	NA[d]
San Lorenzo Unified	42	28	36	31	44	27	29	34[b]
Summit Academy	54	46	61	58	70	54	67	79

[a]In all cases, CST percentages for eighth-grade mathematics are based on the CST Algebra 1. At Summit Academy, 5 (of 61) eighth graders took the CST General Mathematics (grades 6 and 7 standards) instead of the CST Algebra I. At Bridge College Preparatory Academy, 1 (of 39) eighth graders took the CST General Mathematics instead of the CST Algebra I.
[b]In these districts, a slight majority of eighth graders (56 percent for Alum Rock, 54 percent for San Lorenzo) took the CST General Mathematics instead of the CST Algebra I, but the CST Algebra I scores are reported here.
[c]This percentage is for the seventh graders taking the CST Algebra 1. At Heartwood Academy, 5 (of 64) seventh graders took the CST General Mathematics instead of the CST Algebra 1.
[d]NA = not applicable, given that Heartwood Academy did not include eighth grade in 2006-07.
Source: California Department of Education, 2008d.

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[21] In California, algebra 1 is considered an eighth-grade course, although occasionally students take algebra before eighth grade. The CST Algebra 1 is the end-of-course test.

The percent of students scoring proficient on the CST varies by school, content area, grade level, and cohort, and ranges from 15 to 99.

The percent of KIPP students reaching proficiency on the CST varies widely both across schools within a grade and across years for the same grade within each school. (Exhibits 2-10 and 2-11 present the CST results for the KIPP schools for all school years.) For example, 15 percent of Bayview Academy's Cohort 2005 sixth graders were proficient in mathematics compared with 49 percent of Cohort 2003 sixth graders. At SF Bay Academy, 22 percent of Cohort 2003 fifth graders reached proficiency in mathematics compared with 85 percent of Cohort 2006 fifth graders. Making inferences about changes in the percentage of students reaching proficiency as a cohort of students progresses through the grades is complicated because of student mobility (student attrition and the arrival of new students) and because the CST is a criterion-referenced test, aligned to the standards for each grade level; therefore, proficiency levels are not directly comparable across grades.

Exhibit 2-10
Percentage of Students Scoring Proficient or Above on the CST ELA,
Spring 2004 to Spring 2007

		Grade 5	Grade 6	Grade 7	Grade 8
Bayview Academy	**Cohort 2003**	20	41	73	57
	Cohort 2004	26	44	62	
	Cohort 2005	18	20		
	Cohort 2006	21			
Bridge College Preparatory Academy	**Cohort 2002**	16	25	63	50
	Cohort 2003	43	48	53	44
	Cohort 2004	42	41	59	
	Cohort 2005	27	34		
	Cohort 2006	37			
Heartwood Academy	Cohort 2004	69	85	99	
	Cohort 2005	60	59		
	Cohort 2006	67			
SF Bay Academy	**Cohort 2003**	26	33	61	70
	Cohort 2004	33	61	77	
	Cohort 2005	41	62		
	Cohort 2006	53			
Summit Academy	**Cohort 2003**	51	54	72	58
	Cohort 2004	44	44	61	
	Cohort 2005	46	46		
	Cohort 2006	54			

Source: California Department of Education, 2008d.

Exhibit 2-11
Percentage of Students Scoring Proficient or Above on the CST Mathematics,
Spring 2004 to Spring 2007

		Grade 5	Grade 6	Grade 7	Grade 8[a]
Bayview Academy	**Cohort 2003**	29	49	65	29
	Cohort 2004	27	34	53	
	Cohort 2005	20	15		
	Cohort 2006	40			
Bridge College Preparatory Academy	**Cohort 2002**	26	20	74	47
	Cohort 2003	44	47	63	32
	Cohort 2004	60	43	51	
	Cohort 2005	41	32		
	Cohort 2006	52			
Heartwood Academy	**Cohort 2004**	93	98	95	
	Cohort 2005	94	85		
	Cohort 2006	96			
SF Bay Academy	**Cohort 2003**	22	31	78	73
	Cohort 2004	41	56	73	
	Cohort 2005	62	63		
	Cohort 2006	85			
Summit Academy	**Cohort 2003**	61	73	78	79
	Cohort 2004	56	56	67	
	Cohort 2005	65	54		
	Cohort 2006	70			

[a] In all cases, CST percentages for eighth-grade mathematics are based on the CST Algebra 1; at Heartwood Academy, CST percentages for the seventh grade are based on the CST Algebra 1. See Exhibit 2-9 for more information on algebra 1 participation.
Source: California Department of Education, 2008d.

Although KIPP students, on average, outperform their counterparts in the districts in which their schools are located, not all students reach proficiency by the end of eighth grade. If proficiency by the end of eighth grade is an indicator of academic success and readiness for college preparatory courses in high school, not all KIPP students are on that path. For example, in three of the five cohorts that completed eighth grade by 2006-07, fewer than half of the students reached proficiency in mathematics. Seventh grade scores are higher: all 10 cohorts show more than half the students reaching proficiency in both ELA and mathematics. Heartwood Academy has the highest proficiency percentages for seventh graders—all the more remarkable because the mathematics scores are for algebra 1, a year earlier than most students first take that examination.

Mirroring the CST data presented above, in 2007, the Bay Area KIPP schools' Academic Performance Index (API) scores ranged from 741 to 914. The API is California's statewide measure of the academic performance and growth of schools. The scale ranges from a low of 200 to a high of 1000; the target for

all schools is 800. For more information on each school's API score, how it has changed over time, and scores for race/ethnicity subgroups, see Exhibit B-13 in Appendix B.

ARE STUDENT ACHIEVEMENT GAINS ATTRIBUTABLE TO KIPP?

Given the publicly available CST data and the SAT10 data provided by the KIPP Foundation, we find that Bay Area KIPP schools outperform their local districts and that their students make above-average gains compared with national norms. However, to attribute those gains specifically to KIPP requires identifying non-KIPP students who are similar to KIPP students in regard to as many factors as possible that might influence achievement. The best way to create such a comparison group would be to randomly assign students to KIPP and non-KIPP schools. However, random assignment was not feasible for this study; instead, we approximated the result through propensity score matching. Propensity score matching entails identifying the factors (e.g., prior achievement, race/ethnicity, and residential location) that predict whether a student will attend KIPP and then matching KIPP students with non-KIPP students who are similar on those factors. The result is a matched comparison group of students with as similar a set of characteristics as is possible, given available data. The average test scores of the comparison group (who attended non-KIPP schools) can be used as an estimate of what the average test scores of the KIPP students would have been had they attended non-KIPP schools. As long as all key factors predicting KIPP enrollment and test scores are included in the matching, this approach produces as unbiased an estimate of the impact of KIPP as is possible, short of random assignment.

Our data include student-level CST and demographic data for KIPP and non-KIPP students from three Bay Area KIPP schools and the two districts where these schools are located. We followed two cohorts of students—fifth graders in the 2003-04 school year (Cohort 2003) and fifth graders in the 2004-05 school year (Cohort 2004)—into the 2006-07 school year.

The matching process incorporated student demographic variables, including race/ethnicity, free- and reduced-price meal (FRPM) status, gender, special education and English learner status, age, and prior CST scores at fourth grade, together with a cohort indicator and the home address zip code. Because a zip code provides neighborhood location and proximity of the home to school, matching KIPP students to other same-grade students in the same zip code minimizes bias due to unobserved factors associated with residential location, such as family income, parental preferences for schooling, and transportation burden. Prior research suggests that the use of local comparison groups in propensity score matching improves results so that they more closely approximate random assignment results.[22] (Exhibits B-14, B-15, and B-16 present the details of our matching process.)

At the end of fifth grade, KIPP students outperformed their matched counterparts who attended other schools in the same district.

Through propensity score matching, we constructed, for each of the two fifth-grade cohorts in each of the three KIPP schools, a non-KIPP comparison group made up of similar students from the same neighborhood who did not attend KIPP. In the aggregate, the comparison group reflects the prior achievement and demographic characteristics of the KIPP students (see Exhibits B-15 and B-16). For students at the end of fifth grade, we compared the performance of the two groups—KIPP and non-KIPP. For 10 of 12 comparisons, the effect sizes for KIPP students are positive and statistically significant (see Exhibit 2-12).[23] For fifth-grade mathematics achievement, the effects of attending KIPP are positive and statistically significant for all three schools across both cohorts, with effect sizes ranging from 0.19 to 0.86. These effect sizes correspond to adjusted differences in estimated percentile rank between KIPP and

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[22] Michalopoulos, Bloom, & Hill, 2004.
[23] Effect sizes are a measure of the magnitude of the difference between two groups—in this case, KIPP students and non-KIPP students. The effect size is the difference between two means, expressed in standard deviation units of the state population, at a given grade and in a given year.

non-KIPP students ranging from 6.8 to 33.0 points. For fifth-grade ELA achievement, four of the six effect sizes are statistically significant, ranging from 0.16 to 0.54, across schools and cohorts. These effect sizes correspond to adjusted differences ranging from 5.6 to 21.0 percentile points. In a field where 0.20 is generally considered to be a policy-relevant effect, these represent modest to substantial effect sizes.[24] The KIPP effects are larger in mathematics than in ELA across all schools and cohorts. With only one exception, Cohort 2004 effects are larger than Cohort 2003 effects both in ELA and in mathematics.

Exhibit 2-12
Effect Sizes for Fifth-Grade ELA and Mathematics Scores by School by Cohort
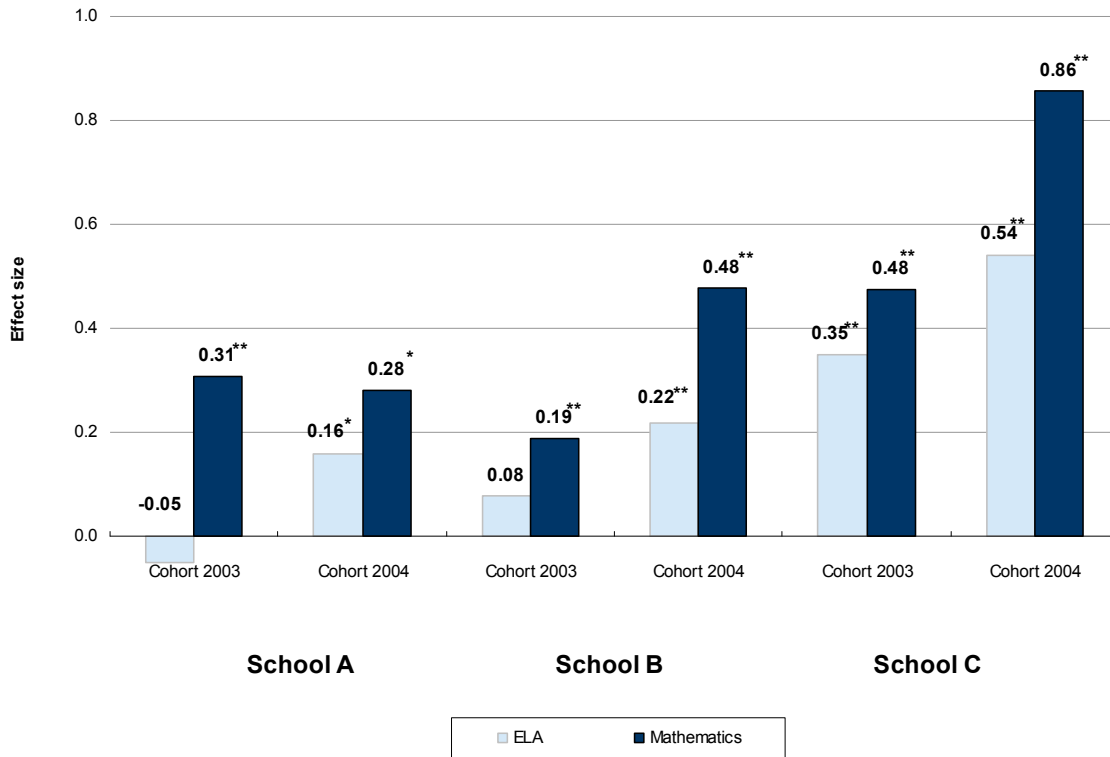
* Statistically significant with p<.05; ** statistically significant with p<.01.
See Exhibit B-17 for additional statistical information, including sample sizes and effect estimates in scale scores and percentile points.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Although the matching process takes into account all the expected influences on test scores that are measurable, it cannot account for bias that results from unobservable characteristics (e.g., family or student motivation). In an effort to account for the impact of unobserved characteristics on students' growth trajectories, we conducted an additional analysis to increase the rigor of the matching process. We matched KIPP and non-KIPP students on both third- and fourth-grade test scores to control for students'

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[24] A recent MDRC paper provides context for interpreting effect size (Hill, Bloom, Black, & Lipsey, 2007). First, the authors report that the average annual gain on nationally normed tests in the middle school years ranges from 0.23 to 0.41, suggesting that an effect size even half as large may signal an important intervention. They also summarize the effects of middle school interventions on student achievement. In their examination of 36 effect size estimates drawn from random assignment studies, the mean effect size is 0.51. In their "meta-analysis of meta-analyses," including 27 effect size estimates from both experimental and quasiexperimental designs, they report a mean effect size at the middle school level of 0.27.

achievement trajectory before entering fifth grade. The results were comparable to the analysis in which only fourth-grade scores were considered (see Exhibit B-18).[25]

Concern about unobserved bias is valid; however, the magnitude of the effect sizes is compelling. It seems unlikely that unobservable family characteristics associated with choosing KIPP could explain differences of this size. In fact, KIPP's impact on student achievement is particularly noteworthy in light of other recent research involving rigorous analyses of student achievement in start-up and charter schools. For example, in a study of start-up charter schools in Texas, researchers found that in their first 2 years charter schools had a negative effect on student achievement.[26] A similar study of North Carolina charter schools found that students attending charter schools made smaller achievement gains than did their peers in traditional public schools.[27] Finally, a study of charter schools in New York City found modest average effects (0.09 standard deviations in mathematics and 0.04 in reading).[28]

Students who joined KIPP in the sixth grade also saw positive effects by the end of their first year.

We compared the sixth-grade test scores of students new to KIPP in sixth grade and matched them with those for non-KIPP students, adjusting for prior fourth- and fifth-grade scores (see Exhibit B-20 for more information). Exhibit 2-13 presents the effects. The results indicate positive and statistically significant KIPP effects in sixth-grade ELA and mathematics achievement in all three schools, with effect sizes ranging from 0.24 to 0.88. Like the effects on fifth-grade KIPP students, the effect sizes for sixth graders new to KIPP are substantial—KIPP students outperformed non-KIPP students by an estimated 8.9 to 33.9 percentile points.

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[25] Another potential issue is that the students included in the matching process are those for whom we were able to obtain both fourth- and fifth-grade CST scores. In all, 135 students were excluded from the analyses, primarily because they did not have fourth-grade test scores. Because we do not have prior achievement data for most of this group of excluded students, we are unable to assess achievement differences between them and the students who are included. However, an examination of the demographic characteristics of included and excluded students reveals that the students included in the analysis were more likely to be in special education and to be receiving FRPM, and were on average slightly younger and more likely to be African-American. For 32 students, we do have prior CST scores; these students were generally (23 cases) excluded because they did not have a fifth-grade CST score at a KIPP school (i.e., they left mid-year). Nine students were excluded because we were unable to match them with a student in their neighborhood. On average, these 32 students had lower fourth-grade CST scores than the sample of students who were included in the analysis; the differences are not statistically significant. (See Exhibit B-19 for information on the characteristics of students included and excluded in these analyses.)

[26] Hanushek, Kain, Rivkin, & Branch, 2005.

[27] Bifulco & Ladd, 2006.

[28] Hoxby & Murarka, 2007.

Exhibit 2-13
KIPP Effects and Effect Sizes for Students Who Joined KIPP in the Sixth Grade
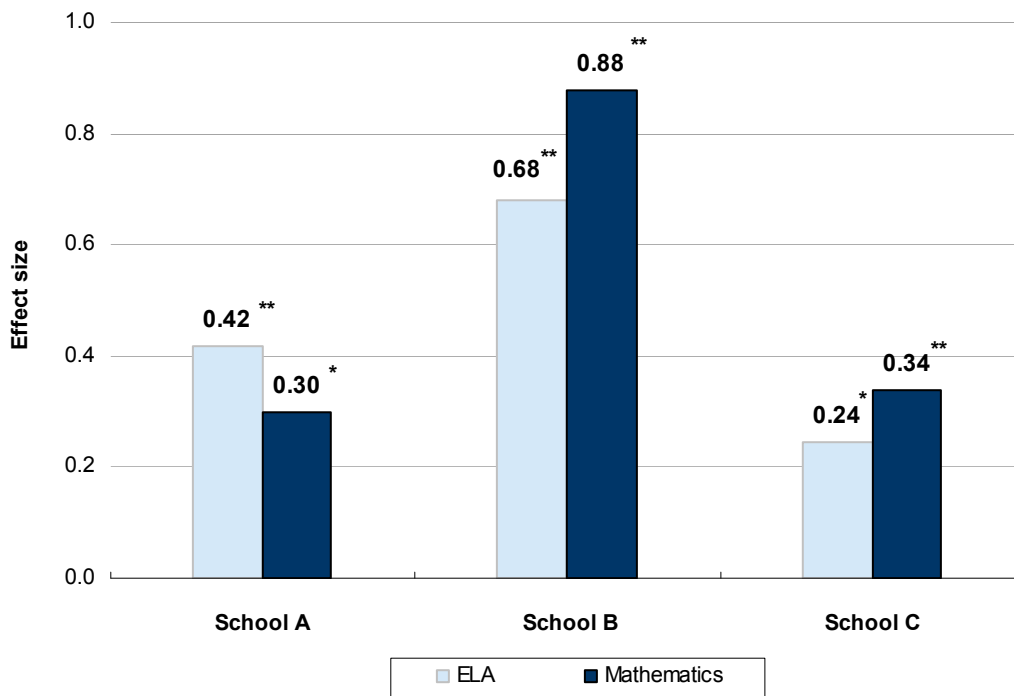
* Statistically significant with p<.05; ** statistically significant with p<.01.
See Exhibit B-22 for additional statistical information, including sample sizes and effect estimates in scale scores and percentile points.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Student attrition and in-grade retention in KIPP schools prohibit longitudinal analyses.

Ideally, we would have liked to assess the effects of KIPP as students progress through the grades. However, because of student attrition and in-grade retention (discussed earlier in this chapter), the students who persist through eighth grade on schedule are a small subset of those who began in fifth grade, causing a substantial decrease in the size of the sample experiencing KIPP. Moreover, the students who remain are systematically different from those who are unobservable in subsequent grades because they left or were retained.

Those who complete fifth grade at KIPP fall into one of three groups by the time they are projected to reach eighth grade: (1) they attend eighth grade at a KIPP school; (2) they attend seventh grade at a KIPP school (i.e., they have been retained, but stay at KIPP); or (3) they leave the KIPP school. To assess whether those who stay at KIPP and reach eighth grade on time differ systematically from students in the other two groups, we compared the effect of KIPP on their fifth-grade achievement.[29]

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[29] For this analysis, we combine students who left KIPP with students who were retained but persisted at KIPP because we are not able to observe grade-level outcome measures for students in either groups (because they are no longer at KIPP or because they did not progress on grade level with their peers). Students who left KIPP account for the large majority of this group.

Exhibit 2-14 presents the estimated fifth grade KIPP effects on students who later exit or are retained at KIPP compared with students who stay at KIPP on grade level. The results indicate that, adjusting for prior achievement, KIPP students who stay and progress with their cohort benefit significantly more from being at KIPP in the fifth grade than those who leave or are retained, *compared with their respective comparison groups*. The effect sizes for the leaver/retained group are 0.11 and 0.33 in ELA and mathematics, respectively, and the effect sizes for on-grade-level stayers are 0.38 in ELA and 0.62 in mathematics. The effects of KIPP on both groups are statistically significant.

Exhibit 2-14
Fifth Grade KIPP Effects on Stayers vs. Leavers/Retained Students
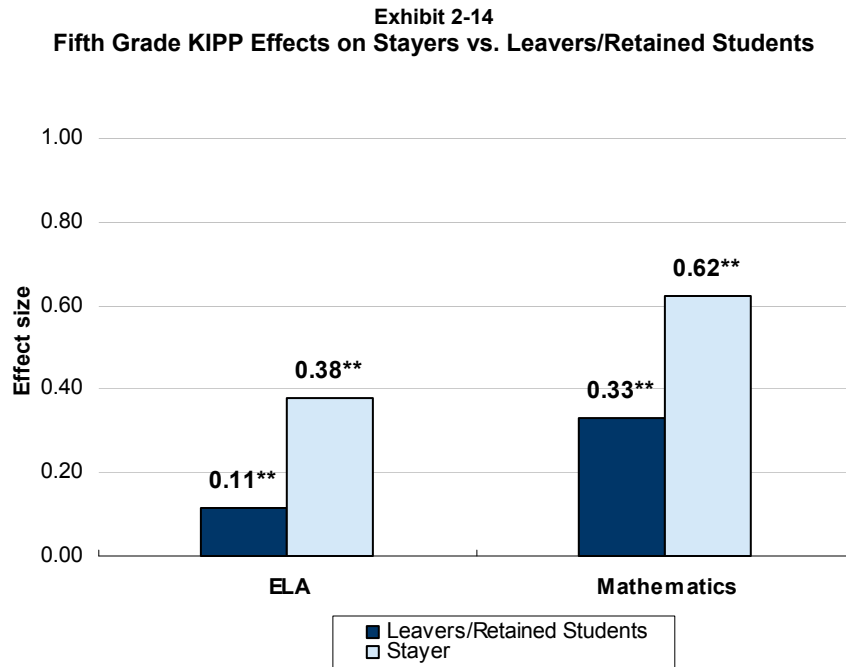
Note: For both ELA and mathematics, the differences between the two groups are also statistically significant.
** All effect sizes are statistically significant at the p<.01 level.
See Exhibit B-23 for additional statistical information, including effect estimates in scale scores and sample sizes.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Drawing conclusions comparing students who stay at KIPP on grade level with the non-KIPP comparison group depends on the assumption that the stayer student group is a representative subsample of the original fifth-grade sample of KIPP students for whom we constructed a comparison group. Because students who continue on grade level at KIPP are those who benefit more from KIPP than those who leave or are retained at KIPP, even after adjusting for prior achievement, this assumption is not valid.[30] As a result, any estimate of KIPP's long-term effect on students who continue on schedule through eighth grade would be biased and not generalizable to KIPP students overall.[31]

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[30] Little and Rubin (1987) note that, when making inferences, it is appropriate to ignore missing data if the missing data are "missing at random" and the observed data are "observed at random."

[31] We explored the possibility of conducting an "intent-to-treat" analysis in which we would follow students who began at KIPP and later left to determine any intent-to-treat or partial treatment effects. We were unable to take this approach because of the limitations of relying on districts' administrative data. Of the 179 students included in our propensity score matching analyses who left KIPP before completing eighth grade or were retained (see Exhibit B-23), 114 also left their respective host district and, as a result, we were not able to access longitudinal data for them. Moreover, those who left the district were a nonrandom subgroup of the original matched group, given that they experienced smaller KIPP effects than those who stayed in the district. (The differences were statistically significant in mathematics, but not in ELA; see Exhibit B-24.)

SUMMARY

We have examined the achievement of students on enrolling in the Bay Area KIPP schools, and we have compared KIPP student achievement with national norms, with California state and district results, and with carefully matched comparison students who did not attend KIPP. Results vary by grade, cohort, school, subject, and analytic approach. Still, several overall patterns are apparent and consistent: First, our analysis of three schools comparing KIPP students with matched non-KIPP students provides no evidence that KIPP attracts relatively higher performing students. Second, student attrition is substantial, and students who leave start out lower performing and benefit less from KIPP than those who stay. Third, KIPP has a significant impact on students in the fifth and sixth grades. This finding, which holds up under our most rigorous analysis, sets KIPP apart from other start-up and charter schools that have been the subjects of recent study. Finally, because of the bias introduced by systematic differences in the fifth-grade effect of KIPP between students who stay at KIPP, on grade level, and those who leave or are retained, we were unable to estimate the effect of KIPP enrollment on achievement in the later grades.

SCHOOL LEADERSHIP AND SUPPORT

KIPP school leaders have the "power to lead," which translates into considerable autonomy in directing their schools. From opening a new school to operating a fully staffed middle school, school leaders have responsibility for a broad range of functions. These functions include arranging for facilities, transportation, and food service, as well as recruiting students and staff, creating the KIPP culture, and serving as instructional leaders. KIPP school leaders are responsible for their budgets and for raising funds both for their operations and eventually in securing scholarships for their graduates to attend private high schools.

The KIPP Foundation seeks to ensure school leaders' success by putting prospective leaders through a rigorous screening process and an intensive training program.[32] As a result of the selection and training process, KIPP school leaders share many qualities and beliefs and make use of a common set of principles, tools, and strategies. At the same time, giving each leader the autonomy to make independent decisions guarantees a certain amount of variation in how the KIPP approach is implemented across the schools in the network. Ultimately, the KIPP Foundation holds schools accountable by maintaining the right to remove the KIPP name from schools that fail to meet its quality standards.

To understand the school leaders' role, specifically how the leaders take advantage of their autonomy, we examine how they approach several key functions and the challenges they encounter in the process. In particular, we address teacher recruitment and retention, instructional leadership and support, and fundraising in the California fiscal context. We conclude with a discussion of the kinds of support provided to school leaders both through the KIPP Foundation and KIPP Bay Area Schools, a new regional intermediary organization, established to provide support to local KIPP schools.

Overall, we find that school leaders exercise their autonomy in different ways—from the criteria they use in selecting teachers, to the ways in which they support and oversee teaching and learning. As a result, to a large extent, each KIPP school's identity is shaped by its leader. The leaders view teacher selection as their most critical function and, given high teacher turnover, spend considerable time on the task. Leaders vary in their approaches to instructional leadership; in some cases, they employ systems and practices, including administrator and peer observations and regular student assessments, to actively support teachers and carefully monitor student learning. Because of the fiscal context in California, fundraising is a major task for Bay Area school leaders, one of several for which they receive help from the KIPP Foundation and KIPP Bay Area Schools.

SCHOOL LEADERS' ROLES AND AUTHORITY

KIPP school leaders are empowered to run their schools, free from most types of interference. The KIPP Foundation influences schools by choosing each school leader, by providing leaders with intensive training, by offering ongoing support and professional development, and by holding the ultimate authority to remove the KIPP name from a school.

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[32] We describe KIPP's screening process and the KIPP School Leadership Program in our previous report on early implementation of the KIPP approach in Bay Area schools (David et al., 2006).

KIPP school leaders are independent entrepreneurs with substantial authority over their schools.

When the KIPP network was established, the founders determined that they would identify potential school leaders through a highly selective screening process and then train them in the KIPP approach. They sought to find successful educators with the entrepreneurial spirit necessary to do all that is required to start a school from scratch. Because they were looking for entrepreneurs, they knew that they could not be too prescriptive regarding how to implement the KIPP approach.

As a result of these early decisions, school leaders do not work for the KIPP Foundation. Instead, each school leader reports to his or her own nonprofit board. Leaders are, however, accountable to the KIPP Foundation because they use the KIPP name. KIPP school leaders are held accountable through a license agreement setting forth the legal relationship between the schools and the KIPP Foundation. From the KIPP Foundation's perspective, the license agreement serves to ensure quality control by requiring schools to operate by the Five Pillars (see Appendix A). If a school fails to meet KIPP's quality standards, including fiscal responsibility, the KIPP Foundation maintains the right to sever its relationship with the school. One senior staff member characterized the terms of the relationship as follows: "You have to deliver results, or we take the name." In a handful of cases, the KIPP Foundation has in fact ended its relationship with schools.

Within the limits prescribed by the license agreement, school leaders reported having considerable autonomy with respect to their relationship with KIPP. As one school leader said:

> Our curriculum is up to us, who we hire is up to us, how we spend money is up to us, the culture in the building feels really different at different schools, I'd say that's up to us. There's not much that's nonnegotiable.

School-based staff identified the nonnegotiables in relation to the Five Pillars. In particular, they pointed to extended time—KIPP schools must have an extended day, extended week, and extended year—and achieving results. As an assistant principal (AP) explained, "What's not negotiable is that you have to have results. You've got to show improvement." Some, but not all, mentioned the need to maintain a disciplined, structured environment.

KIPP Foundation staff members described how the relationship with school leaders plays out from their perspective. One said, "We're not an EMO [education management organization]. So we can suggest, I can cajole, at times I can beg, but it's not always easy given the relationship we have with schools to insist." Another explained: "I'll give advice and they will, at times, turn me down." Giving school leaders this autonomy, as reflected in the Power to Lead pillar, lies at the core of what the KIPP leaders believe is the key to their success. A KIPP Foundation staff member put it this way:

> It's holding them accountable, but holding them accountable for what matters to children as opposed to a bureaucracy. So, no I can't say, 'You must use X delivery system,' but I can say, 'Your reading scores have dropped 25 points, what are you doing about it?' That's a different kind of discussion.

To ensure that this accountability is coupled with sufficient support, the KIPP Foundation provides school leaders with ongoing assistance in a number of areas in addition to their initial intensive training. (For more information on the type of support the KIPP Foundation provides, see the "Support for School Leaders" section of this chapter below.)

School leaders place great value on having the "power to lead" and are committed to being held accountable for results in exchange for autonomy. We turn now to a discussion of how they use this autonomy to recruit, hire, and retain teachers; provide instructional leadership and support; and raise the private funds needed to operate the KIPP approach in the California fiscal context.

RECRUITING, HIRING, AND RETAINING TEACHERS

In addition to the school leader, teachers and other support staff are key to shaping the identity of the school and determining its impact on students' lives. As a result, school leaders put substantial effort into recruiting, hiring, and retaining their staff.

School leaders cite selecting teachers as their most critical function.

Although the school leaders value the autonomy they have in many areas, they are unanimous in their view that the authority to select and assign teachers is, as one school leader put it, "the most important freedom." KIPP school leaders are free to hire and fire teachers because KIPP schools operate outside of their districts' collective bargaining agreements. This freedom to hire and fire allows them to assemble a team that shares their vision. As one school leader said, "People come to our school and say that they can't tell our new teachers from our existing teachers, they fit right in… I think a lot of that happens in whom I hire."

Hiring the right teachers involves substantial effort on the part of school leaders. As one school leader said, "Teacher recruitment is the hardest thing that I do. Finding those excellent teachers is really difficult." Of course, non-KIPP principals also face the challenge of attracting and retaining qualified teachers, especially those who lead schools serving high-poverty, minority communities.[33]

Once they have recruited candidates, KIPP school leaders put each prospective teacher through a rigorous screening process that begins with a paper screen, followed by a phone screen. As one school leader explained, every year she screens 60 to 70 applicants over the phone, and doing so takes substantial time. In almost all cases, school leaders hire new teachers only after observing them teach. One AP described how she scrutinizes prospective teachers' lesson planning, organizational skills, and ability to connect with their student population:

> It is looking at how thoroughly they plan their lesson. Do they have all the elements of a lesson? It's also looking at their organization; you have to be really organized to be here. We have a lot of [prospective] teachers come in and just teach activity-based lessons, not about what are the students going to be able to do and know at the end of the lesson… That's what I look for—do they have an end in mind and are they scaffolding their teaching as they go along during the lesson to be able to get there? Do they have a pulse on their class? We have to see them teach one way or another, through a video or sample lesson. Because, if you don't see them in the classroom, it could be a disaster. Unless you see them teach, and with our kids, because we're a different population than maybe the kids they've taught before. It's a tough neighborhood and the kids have lots of issues and are you ready for that? Have they had a lot of leadership experience, and do they move quickly? Because this is a fast-paced place, are they up for that?

School leaders explained that part of their objective with the screening process is to convey the challenges inherent in teaching at a KIPP school. As one school leader said: "We have a very exhaustive interviewing process… and if you think that the interview process is hard, wait until you're in the classroom." The goal is to ensure that the job is a good fit for the teacher—and to decrease the likelihood that the teacher will quit or be let go because it is not.

School leaders seek teachers who share their vision and commitment; they vary in the value they place on experience.

Finding teachers who share their vision is essential to all of the Bay Area KIPP school leaders. As one explained, "I look for culture above everything else." In particular, she assesses, "How well are you aligning with the school's values? Just our belief that all children can and will learn—how aligned are

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[33] Wechsler et al., 2007.

you to that?" Another school leader described the impact of hiring teachers who share her vision and values: "I choose the teachers in my building, so there's a certain belief system built in."

Although all the school leaders try to avoid hiring completely novice teachers, some do hire teachers with no experience whereas others do not. As one school leader said, "I definitely look for teachers who have a couple or more years of experience first, but that's not totally fixed." Meanwhile, another explained, "We don't gamble on new people. We don't have the capacity to bring on someone new." School leaders found themselves walking a fine line in terms of the level of experience they expect of new hires. As one noted, "The people who most want to do this are people who are young and have energy."

Although teachers' youth may be an asset in terms of energy and availability to put in the required hours, teachers' limited experience may exacerbate the already high demands of the job. As a school leader explained, "The first year you teach at a KIPP school is really, for many people, very tough, and I think if you had a lot of years of experience, it just wouldn't be as hard for you." A teacher who was new to the profession agreed, "The learning curve is tremendous… being a first-year teacher at KIPP, because of the expectations for you as a teacher here, it's like going to college and being expected to be a Ph.D. student your first year." A more experienced teacher indicated that her inexperienced colleagues need to work harder to compensate for their lack of experience:

> On the one hand, you've got these teachers who are really gung-ho and they're young and they want to get in there and spend all their time to knock it out of the park. At the same time, they don't have the background and resources and knowledge that more experienced teachers do.

One school leader acknowledged that many of the teachers who had left the school over the years were new to the profession and may have left because they were not prepared for the demands of the job.

Teacher turnover poses an ongoing challenge for school leaders.

Since 2003-04, the five Bay Area KIPP school leaders have hired a total of 121 teachers.[34] Of these, 43 remained in the classroom at the start of the 2007-08 school year. Among teachers who left the classroom, at four of the schools they spent a median of 1 year in the classroom before leaving; at one school, the typical teacher spent 2 years in the classroom before leaving. These findings are consistent with the results of our teacher survey data, which indicate that the median tenure among teachers at Bay Area KIPP schools in the spring of 2007 was 2 years. (Because the schools are so new, the upper limit in terms of employment longevity in Bay Area KIPP classrooms was 3 to 5 years, depending on the school's founding date.)

Assessing teacher turnover over the course of this study has been complicated by each school's annual expansion. Nonetheless, year-to-year turnover provides the most straightforward snapshot of teacher mobility. For example, among the 84 teachers who taught in the five Bay Area KIPP schools in 2006-07, nearly half (49 percent) left the classroom before the start of the 2007-08 school year.[35] Teacher turnover varies by school. From the 2006-07 to 2007-08 school year, teacher turnover rates ranged from 31 percent at two schools to 65 percent at one school.

Teacher turnover rates at the Bay Area KIPP schools have varied over time as well, ranging from a low of 18 percent from 2003-04 to 2004-05 when each school had a small staff comprised primarily of founding teachers to a high of 49 percent from 2006-07 to 2007-08. Exhibit 3-1 shows the percentage of teachers who have left the classroom at a Bay Area KIPP school for the 4 school years from 2003-04 through 2007-08.

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[34] SRI database of Bay Area KIPP teachers, confirmed by school leaders in summer 2007.
[35] Note that some of the 84 teachers taught for less than the full 2006-07 school year; at any given time, the schools employ many fewer teachers. For example, at the time we administered our teacher survey in spring 2007, 77 teachers were on the staff rosters.

Exhibit 3-1
Annual Teacher Turnover Rates in Bay Area KIPP Schools,
from 2003-04 to 2004-05 through 2006-07 to 2007-08
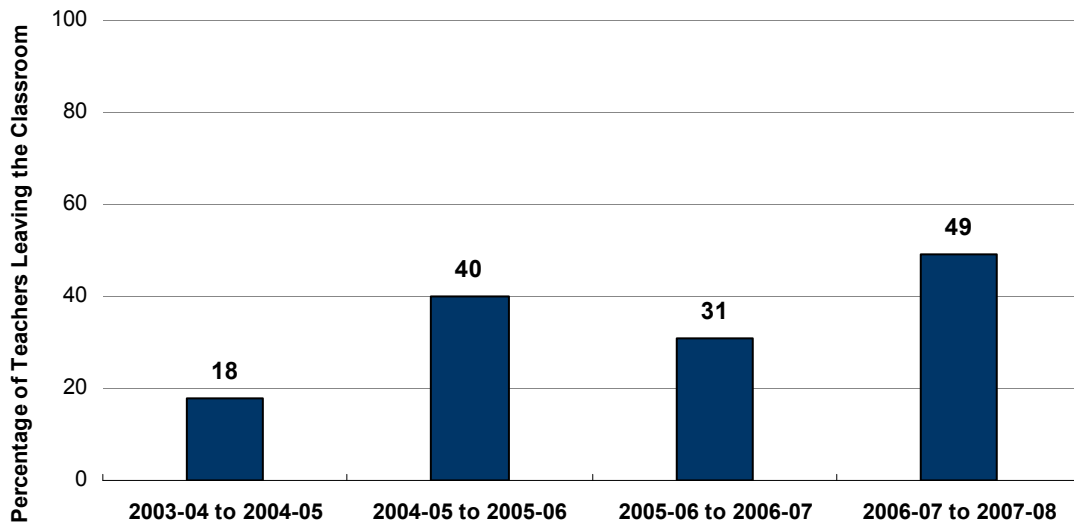
Source: SRI database of Bay Area KIPP teachers, confirmed by school leaders in summer 2007.

High teacher turnover is not uncommon in urban schools serving poor and minority students. Studies of teacher turnover place the annual turnover rate in high-poverty schools at about 20 percent.[36] Interestingly, according to these same studies, small private schools have the highest annual teacher attrition rates (22 percent)—arguably, KIPP schools have much in common with small private schools.[37] Moreover, some studies have found that younger teachers and those who have attended highly selective colleges tend to leave teaching jobs at higher rates than others.[38] The fact that KIPP teachers share these characteristics could contribute to higher rates of turnover at KIPP schools.

For example, in many cases, teachers leave the KIPP classroom because they are talented, ambitious young people looking for the next challenge, such as a leadership position—often at a KIPP school. In fact, of the 78 teachers who left the classroom of a Bay Area KIPP school between 2003-04 and 2006-07, nearly 30 percent (23 teachers) continue to work at a KIPP school but in another capacity.[39] Interestingly, 80 percent of founding teachers—those helping to open the school in its first year—have remained with KIPP, although only 3 remain in the classroom. In 2007-08, of 15 founding teachers, 3 were leading or preparing to lead a KIPP school, and 6 were playing full-time leadership roles at a Bay Area KIPP school. Other teachers leave the KIPP classroom for personal reasons, including attending graduate school, relocating with a partner or spouse, and finding a better balance between work and their personal lives. We do not have information that allows us to quantify the various reasons teachers leave the KIPP classroom.

Administrators and teachers alike reported that the impact of teacher turnover and the associated need to hire and support more new teachers limit the ability of the staff to develop programs over time and take away from school leaders' ability to provide support and leadership for existing teachers. This problem is

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[36] Ingersoll, 2003; Marvel, Lyter, Peltola, Strizek, & Morton, 2007.
[37] Ingersoll, 2003.
[38] DeAngelis & Presley, 2007; Marvel et al, 2007.
[39] For example, former Bay Area KIPP teachers work as full- and part-time administrators or specialists at the school at which they began as a teacher or at another KIPP school. In some cases, teachers left the classroom at one Bay Area KIPP school only to accept a teaching position at another Bay Area KIPP school.

especially severe when school leaders cannot fill vacancies—often the result of mid-year departures—and must take on teaching responsibilities themselves.

In the schools that have experienced relatively high staff turnover, staff noted that the turnover limits their school's ability to build on their program. As one teacher explained, "Turnover is so high that teachers are constantly coming in and reinventing the wheel." An AP, from a different school, talked about teachers' increased ability to make a difference at the school if they return for a second year:

> Something effective for people in our system is that they come back another year. The first year is like a practice... If you are able to return, you have so much more of an understanding, and… [the] wherewithal, to help, to possibly change or influence system.

Similarly, a school leader who had had high turnover in the past talked about what a difference having fewer new staff in the coming year will make in terms of advancing the instructional program:

> We only had two people leave, so it'll be a much different year this year…. [W]e had to do much less around how do we want the curriculum alignment to be, what do we want differentiation to look like in the classroom, how do we want to work on cross-subject area information. Now, we've got all that, it's just moving forward.

Demanding workloads can interfere with the ability of school leaders to support, develop, and retain their teachers.

The demands of teaching at a KIPP school take a toll on teachers and can interfere with school leaders' ability to realize their vision. The heavy workload is due in part to the long hours that KIPP teachers and staff work, compounded by the energy and passion that KIPP teachers choose to put into their work. The challenge of demanding workloads is not unique to KIPP schools, of course. Recent studies of small, start-up high schools have noted that teachers reported feeling overwhelmed by their daily work demands.[40] The finding that these pressures do not diminish over time led the authors of one study to suggest that "unwieldy workloads may be endemic to the staffing structures of many small high schools."[41]

Two of the Bay Area KIPP school leaders expressed concern about how the demands on teachers—and administrators—may interfere with their ability to provide the support necessary to sustain and develop their program. One school leader questioned how long they can keep up their current pace. As he put it: "The big question is the sustainability question... We are really tired." Another questioned whether the staff is able to further develop their program for students, given the heavy workload. She explained, "There's sustainability for myself on just a day-to-day basis and sustainability for the staff… knowing that there's so much more we can do for kids, what's the bandwidth that we can tolerate?"

Veteran teachers in every school, including founders, expressed similar sentiments. In particular, these deeply committed teachers regret that they need to choose between teaching at KIPP and finding balance in their lives. Ultimately, they reflected on the challenge of retaining teachers within the context of the KIPP structure (as implemented in the Bay Area schools). As one veteran teacher explained:

> That's the biggest KIPP challenge: how do you keep teachers coming back here year after year? A lot of the workload I have I put on myself... When do I stop worrying about them and take care of me? It's hard to find that balance. That's going to be the most challenging thing, retaining teachers and keeping them rested and healthy.

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[40] Shear et al, 2005; Stevens & Kahne, 2006.
[41] Shear et al, 2005, pg. 4.

Two veteran teachers, from different schools, made similar observations:

> The consequence is I can't do this job very much longer. It is too much. I don't see any solution with our structure and our nonnegotiables. No one has really presented any way to solve that problem.

> The time is really challenging. I am coming up against a wall of how much I can give. It is getting to be too much. This is not a place I plan to leave anytime soon. I just need to find a way to balance my life. I definitely plan to see it through as far as possible. It is dear to me. I just need to figure out how to make it work.

Teachers' ability to thrive in the KIPP environment varies. As one teacher who ended up leaving after 1 year at a Bay Area KIPP school explained, she admired the sacrifice she observed at KIPP, but did not feel she was in a position to make that sacrifice for a second year:

> It's really amazing to see what people are willing to do. That's something I've seen here: what teaching is like when you do it right and what that requires is a lot, especially when you are taking students who are in families that are struggling to get by. You're taking on the place of the family, giving up your own family. I respect and admire that in others, and I don't know that I can do that again.

The issue of teacher workload is important to understand for the development and sustainability of the Bay Area KIPP schools. This issue is instructive as well for educators and policymakers who are considering replicating aspects of the KIPP approach. An examination of the Bay Area KIPP teachers' workload suggests that the nonteaching time KIPP teachers put in may contribute most to their stress. Although KIPP schools are in session from approximately 7:30 AM to 5:00 PM daily, Bay Area KIPP teachers do not report spending more time *teaching* than a national sample of urban middle school teachers. Across the five Bay Area KIPP schools, the median number of hours spent teaching to a class of students was 25 per week, ranging from 20.5 to 30 across the five schools (see Exhibit 3-2). Comparable national figures, generated through the National Center for Education Statistics (NCES) Schools and Staffing Survey, show that the average hours spent *teaching* among urban middle school teachers nationwide is 27 hours. In contrast, the median number of hours Bay Area KIPP teachers spent on all school-related activities was 65 per week, ranging from 60 to 67, whereas the average hours spent working on those activities among urban middle school teachers nationally was 52 hours per week.

Exhibit 3-2
Bay Area KIPP Teachers' and a Representative National Sample of Urban Middle School Teachers' Reports on the Hours They Spent per Week on *All* School-Related Activities and on Teaching
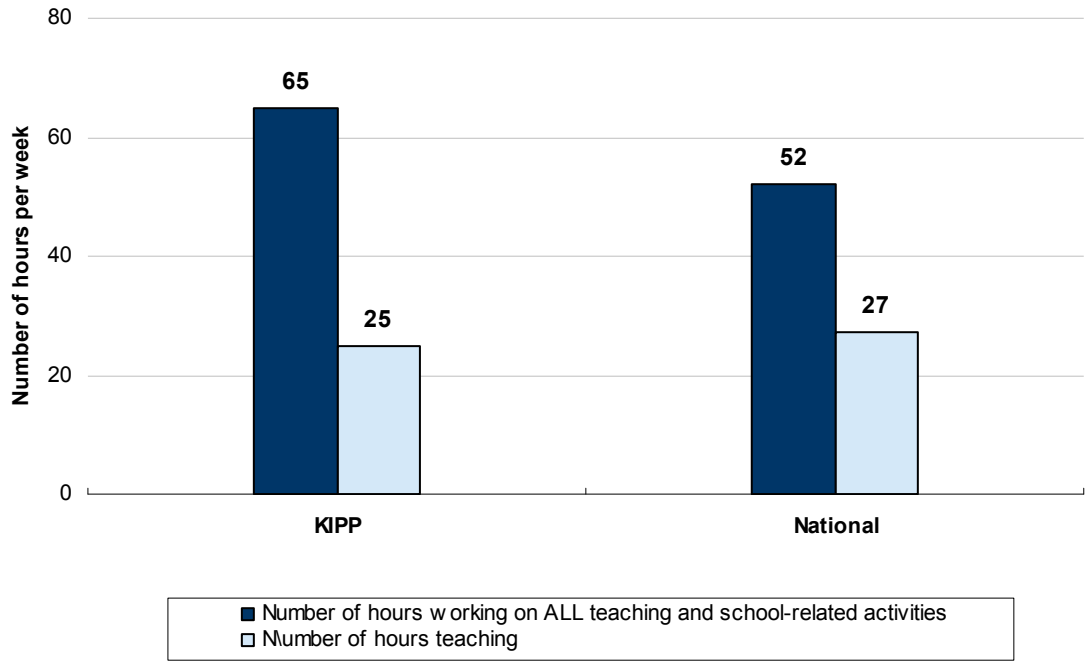
Note: We report the median hours for KIPP teachers, whereas the national data are presented as mean hours.
Source: SRI Teacher Survey, 2007; National Center for Education Statistics, 2004b.

In addition to delivering instruction to a class of students, teachers spend time on other school-related activities, including instructional planning, tutoring or working with a small group of students, and meetings (e.g., staff meetings, meetings with parents). Some of the Bay Area KIPP schools appear to have systems in place that reduce teachers' nonteaching workloads. For example, the Bay Area KIPP school in which the median hours spent on all school-related activities was lowest (60 hours) is also the school in which the median hours teaching was highest (30 hours), suggesting that teachers' nonteaching responsibilities may be less at this school than at some of the others.

Because of the challenges associated with hiring and retaining teachers, a primary goal of KIPP Bay Area Schools is to support schools with teacher recruitment. (See the last section of this chapter for more information on KIPP Bay Area Schools' role.) This increased support seeks to free school leaders from some of the work of teacher recruitment so they can dedicate more time to supporting existing staff and providing leadership around teaching and learning.

INSTRUCTIONAL LEADERSHIP AND SUPPORT

As their schools mature, the Bay Area KIPP school leaders have shifted their focus from start-up responsibilities—establishing the school culture and systems for growth—to a greater emphasis on instructional improvement. All have created new positions and structures aimed at supporting teachers. Other strategies vary substantially across the five schools.

School leaders set up new roles and structures to support instructional improvement.

As the schools grow, additional staff are hired. Depending on their own skill sets and the needs of their school, school leaders hire staff to fill different types of roles. In 2006-07, four of the five schools had an AP—an administrator other than the school leader who was relieved of teaching responsibilities to focus on supporting instructional improvement. The AP's role and the specific division of labor between the APs and the school leaders vary across the schools. In most cases, both the AP and the school leader provide instructional support, and the AP's role is defined to augment the school leader's. In many cases, APs have responsibilities that go beyond supporting curriculum and instruction (e.g., some are also responsible for discipline and communicating with parents). At several schools, APs have taken over teaching assignments when teachers left mid-year. Depending on how long APs remain in the classroom, however, this practice can undermine their ability to support their colleagues.

After the first couple years, school leaders also established new structures, including grade-level and department chairs, to take on some of the leadership and management responsibilities. The development of these new structures has marked a shift in the school leader's role. As one school leader explained:

> The first year my role was really different… I basically headed the team of the five of us... Over
> the last 2 years I think my role has definitely changed in that it's been more of a principal role
> where there are grade-level team leaders who lead their grade level.

She added that having grade-level team leaders "puts a lot of different people in leadership positions, so the responsibilities split across the school as opposed to being just in the hands of a couple people." Grade team leaders at other schools also described the role as a liaison between the school administrators and the teachers at their grade level. In addition to providing instructional support, the functions taken on by grade team leaders include communicating with parents, helping to establish a consistent culture and behavior management system across grade-level teachers, and discussing and monitoring the performance and conduct of individual students. Although department chairs are also a source of support for teachers, the role of the department chair tends to be less prominent than the role of the grade level leader.

Each Bay Area KIPP school has also added staff to support special education students. Each school has a full-time learning specialist to support special needs students and other students who are struggling. To assess how well supported teachers feel as a result of the added staff, we asked teachers whether they are given the support they need to teach students with special needs. One school is the clear outlier with *all* teachers agreeing or strongly agreeing that they received the support they need. The other four schools ranged from 39 to 54 percent in agreement with that statement. In interviews, teachers had only positive comments about special education support. One teacher said:

> She [the resource specialist] is in my room every day. She always comes in when we do
> independent practice. She has her certain students, her IEP [Individualized Education Program]
> kids that she knows… to go to and how to help them. She's there right on time, right when we
> need her.

Despite the resources available to them, when asked how she would spend extra funds, one school leader said she would hire a second special education teacher.

Supporting and monitoring instruction operate differently from school to school.

All of the Bay Area KIPP school leaders see it as their job to support and oversee teaching and learning. To varying degrees, most school leaders support and monitor teaching by spending a substantial amount of time in classrooms, tracking students' academic progress through benchmark assessments, and actively supporting teachers' efforts to intentionally plan for instruction. Some school leaders struggle to find the time to get into classrooms and to give feedback on lesson plans, often because they are "putting out fires" or teaching themselves.

Exhibit 3-3 illustrates the variation in teachers' perceptions of their school leaders' efforts to oversee teaching and learning. At one school, 100 percent of teachers either agreed or strongly agreed with the statements: "my principal carefully tracks student academic progress," "my principal actively monitors the quality of teaching in this school," and "my principal knows what's going on in my classroom"; 92 percent of teachers either agreed or strongly agreed with the statement "my principal regularly observes my classes." At three of the schools, a majority of teachers (typically a large majority) agreed with the statements: "my principal carefully tracks student academic progress," "my principal actively monitors the quality of teaching in this school," and "my principal knows what's going on in my classroom." At the fifth school, less than half of the faculty agreed with any of these statements, and as few as 8 percent of teachers agreed that their principal regularly observes their classes.

Exhibit 3-3
Teacher Reports on Their Principals' Role in Teaching and Learning
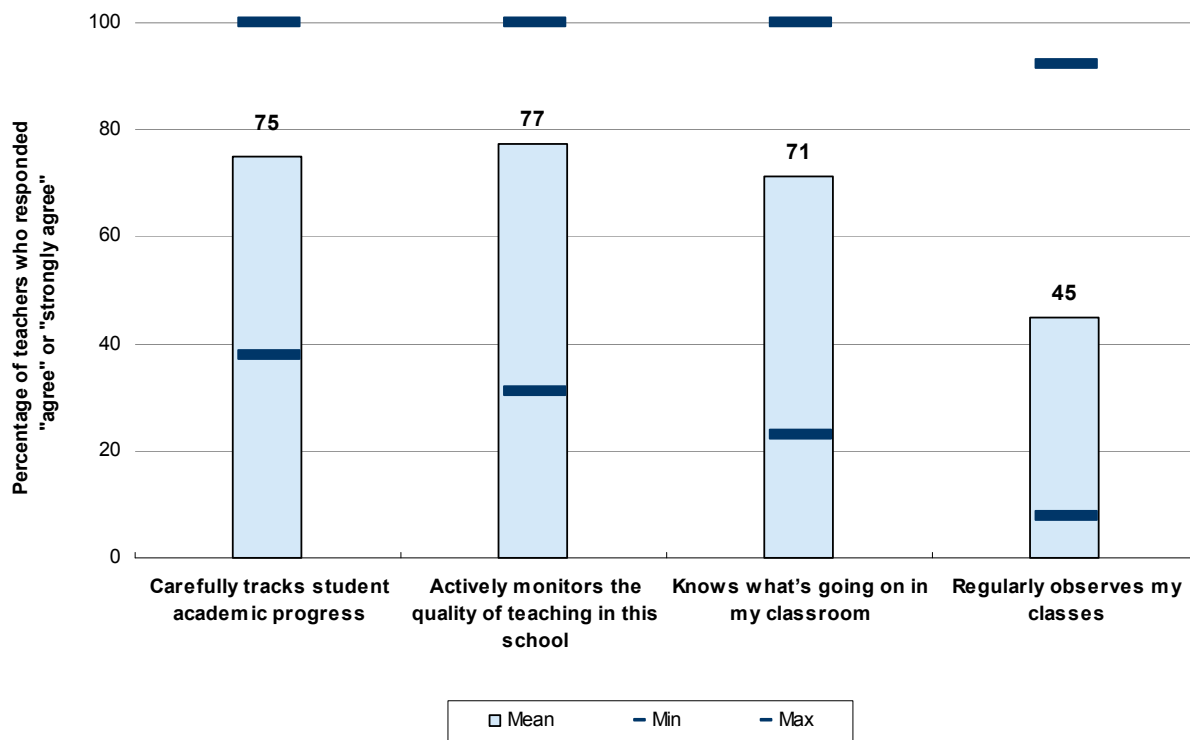
In interviews with school leaders, each described a somewhat different approach, and some expressed more frustration than others with respect to their ability to provide instructional support and oversight. One school leader described her approach to monitoring the quality of teaching at her school as follows:

> I'm in and out of every classroom several times a day so I can tell you what's going on in every classroom every day because I'm in there frequently. So that's really how I monitor the instruction. And then we look at the results, too—trimester exams, state standardized test scores, teacher made assessments. So there's a variety of products that we look for, but certainly when you're in a classroom every single day, you know whether the class is going the way it needs to or not. So you can coach based on that.

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At another school, where the school leader shares responsibility for providing instructional support and oversight with an AP, he described a more formal approach to classroom observations and feedback. Each teacher is observed 10 times a year. Of these, usually 5 or 6 are longer observations (about 40 minutes) that begin with a preconference and are followed up with written feedback, using a standard form, and a postconference. The other observations take the form of "walkthroughs" that tend to focus on one thing and are followed up with brief written feedback. In addition to these observations, structures have been put in place to support regular peer observations.

At a third school, the approach to support and oversight focuses more on data use and giving feedback on lesson plans. For example, when asked about priorities for the year, the school leader explained, "We continued to focus very heavily on differentiated instruction and making sure that we were figuring out what kids knew and didn't know, and how to move them forward." He went on to describe that their process for understanding what students know and do not know involves the use both of EduSoft® and of teacher-developed assessments and carefully examining the results.[42] He added, "We're a data-driven school, and we look at data very seriously." This school also requires teachers to submit unit plans (the AP reviews them and talks with teachers about them), and the school has a peer observation system in place.

At the schools in which school leaders provided less support and oversight, their reasons varied. As one school leader said, "I didn't get to spend the kind of time I wanted to in the classroom, and I felt like I was always fighting fires as opposed to taking care of teachers." At three schools, school leaders took on teaching responsibilities when teachers left mid-year, thereby limiting the time they had available to spend in teachers' classrooms. School leaders also felt the pull of other responsibilities. As one said, "[The AP] and I would try to see every teacher every week or every other week… I think that fell off in January or February." This school leader attributed the change to her need to focus on hiring new teachers and recruiting students. Because of these competing demands on her time, she has not felt able to attend to instructional issues. As she said, "Someone must know the instruction all year long and that has never happened."

FUNDRAISING AND THE IMPACT OF THE CALIFORNIA FISCAL CONTEXT

KIPP school leaders wear multiple hats. In addition to recruiting and hiring teachers and serving as instructional leaders, school leaders must raise enough money to ensure the financial viability of their schools. Fundraising is a key role that school leaders play, particularly in California, where school funding levels are low and staffing and facility costs are high.

KIPP school leaders in California must fundraise from one-fifth to one-third of their budget to cover the gap between the local and state revenues their schools receive and their true operating costs. For future growth, the KIPP Foundation wants to ensure that school operating budgets, without additional fundraising, can sustain the schools. However, in California, "you can't do the KIPP model without philanthropy," observed a KIPP Foundation leader. As a result, KIPP Foundation staff reported that further growth of the KIPP network in California may be limited.

Low funding and high costs necessitate substantial fundraising.

KIPP school leaders in California must address the low levels of per-pupil funding that they receive from the state. Per-pupil funding, based on local and state revenues, for KIPP schools in California is nearly half the per-pupil funding available to KIPP schools in other high-cost states and locales, such as New York, New Jersey, Massachusetts, and Washington, D.C.[43] In 2006-07, per-pupil funding for eight of the

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[42] The EduSoft® Assessment Management System provides standards-aligned benchmark assessments and analysis to schools and districts.
[43] In an effort to control for the largest proportion of the cost of doing business, we compared California's funding levels with states in which KIPP operates that have similarly high teacher salaries.

California KIPP schools was, on average, less than $6,000 a year compared with approximately $10,000 in New York and New Jersey, $11,000 in Massachusetts, and $13,000 in Washington, D.C.[44]

In addition to the low state and local per-pupil funding, KIPP school leaders in California face an absence of affordable facilities and relatively high staffing costs. In fact, California's average teacher salary ranks second in the nation, exceeded only by that of Washington, D.C.[45] On the facilities side, Proposition 39, which voters passed in 2003, requires all California school districts to provide facilities to charter schools with an average daily attendance of at least 80 students. Although some districts provide facilities for rents substantially below market rates—approximately $4,000 a year in the case of one Bay Area KIPP school—another Bay Area KIPP school pays more than $100,000 a year to its district to lease a Proposition 39 facility. In other cases, KIPP schools lease facilities from private sources and consequently are subject to changing market forces.

Major fundraising is essential for basic operations.

Because California's per-pupil funding is low relative to the high cost of facilities and staff, to implement the KIPP approach and ensure their schools' long-term viability, KIPP school leaders in California must undertake considerably more fundraising than their counterparts in other states. As one KIPP Foundation staff member remarked, "California school leaders have to be much more creative and drive more value out of their dollars than others."

In our 2007 interviews, school leaders in the five Bay Area KIPP schools indicated they need to raise anywhere from $400,000 to $700,000 annually. Depending on the school, this amount may be one-fifth to one-third of the budget. The additional money raised is used for hiring more staff (e.g., enrichment teachers, administrators), supplementing teacher salaries (i.e., paying teachers more because they work more hours), and providing scholarships for students to attend private high schools. In addition, the funds pay for the schools' annual end-of-year field trips for students; these field trips are an integral part of KIPP's efforts to develop students' character, build their "cultural capital," and reinforce expectations for college (see Chapter 4). Students at the Bay Area KIPP schools go on trips outside of the region; for example, visiting cultural landmarks and college campuses in Southern California, New York, and Washington, D.C.; camping in Yosemite or Utah; and studying marine life in Santa Cruz and Monterey.

One school leader in the Bay Area who has been successful in fundraising efforts said the additional money provides the school leader with "the ability to say 'yes' to everything my teachers ask for." Yet, the additional $4,000 per student raised by the school brings it only to par with the operating budgets of KIPP schools in the East Coast *before* they engage in any fundraising. In other words, even with all the effort school leaders put into fundraising, KIPP schools in California still do not have as much money as KIPP schools in other high-cost states.

Given the many demands on school leaders, they benefit from being part of the larger KIPP network, which enables them to access many types of support. We next discuss the evolving roles that the KIPP Foundation and KIPP Bay Area Schools play in supporting to the Bay Area school leaders.

SUPPORT FOR SCHOOL LEADERS

School leaders receive support from both the KIPP Foundation and KIPP Bay Area Schools. The KIPP Foundation provides initial training and support for school leaders through the KIPP School Leadership Program, and both the KIPP Foundation and KIPP Bay Area Schools provide ongoing support and assistance. The KIPP School Leadership Program involves intensive training that prepares prospective leaders in three key areas: instructional, organizational, and operations leadership. On successful

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[44] Data on funding levels come from the KIPP Foundation Report Card (2006). We excluded one California KIPP school from this analysis because it was not operating as a charter school and thus had a different financial relationship with its host district.

[45] National Education Association, 2006.

completion of the KIPP School Leadership Program, school leaders receive assistance as they open their schools, and they receive ongoing support from the KIPP Foundation in several areas—legal, public relations, data analysis, high school placement, and teacher professional development. Across the Bay Area KIPP schools, school leaders said that the KIPP Foundation is a valuable resource that they take advantage of as needed.

More recently, with the establishment of KIPP Bay Area Schools, the Bay Area schools are pooling resources to benefit from greater coordination and economies of scale. KIPP Bay Area Schools focused its initial support to schools in three areas: fundraising, teacher recruitment, and operations.

The KIPP Foundation provides leadership and support to school leaders, adapting as needs arise.

In light of the range of challenges KIPP school leaders face, the KIPP Foundation has worked to adapt and improve its screening process, the initial training it provides to school leaders, and its ongoing support functions and structure. Decisions about how to adapt its support for school leaders are informed through multiple feedback loops that have been established to gather information from existing schools. Specific mechanisms for assessing the network's strengths and weaknesses include regular feedback from school leaders, deep analysis of test scores, and school reviews. KIPP schools are required to submit to formal school reviews in their second and fifth years of operation. The reviews focus on teaching, learning, leadership, and the Five Pillars. In addition, KIPP Foundation staff, leaders-in-training, and more experienced school leaders conduct "minivisits" in each school's first year. The formal reviews are jointly conducted by Cambridge Education Associates and KIPP staff (including at least one school leader). In addition to supporting the KIPP Foundation's continuous improvement efforts, the reviews help school leaders by providing school-specific feedback. Bay Area school leaders value the feedback they receive from the review team. As one said, having "someone very knowledgeable come in" and discuss operations, including deficiencies, is valuable.

The information gathered through the KIPP Foundation's feedback loops has led to some rethinking of its approach to selecting and preparing school leaders. For example, one Foundation staff member described the way KIPP leaders' thinking has evolved with respect to developing school leaders' skills:

> We used to say if a teacher was very successful for 2 or 4 years, we would train them and they could make a great school leader. I argue [it's] not the same skill set. It's kind of like taking somebody who's a great quarterback and saying "poof, you are the head coach tomorrow."

This KIPP staff member went on to note that managing staff is particularly challenging for KIPP school leaders because the school leaders tend to be young, with limited experience. As a result of the Foundation's awareness of this issue, the KIPP School Leadership Program now includes more explicit training with regard to staff management.

This increased attention to helping prospective school leaders prepare to lead a staff is already having an impact on those who have more recently participated in the leadership training. All of the Bay Area administrators who participated in the Leaders-in-Training program[46] talked about this being the most important "take-away" from the training:

> I think the biggest thing was thinking as a leader not as a teacher. That was probably the hardest transition and probably the biggest eye-opener… just the difference between managing adults versus managing students…. [T]hey did a lot of work on how to have difficult conversations and how to approach adults when things aren't going well.

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[46] The Leaders-in-Training Institute is for KIPP teachers who are preparing to take on additional leadership responsibilities at their schools. Several administrators in Bay Area KIPP schools who have been through this training were interviewed for this study.

> The biggest take-away for me personally was that my confidence as a leader of adults improved dramatically and also my confidence in dealing with conflict improved dramatically, which was necessary for my new role. That was a big area of growth that I knew that I needed to work on.

KIPP Foundation staff also have come to realize the need to provide additional support, in particular around instructional leadership. A leader at the Foundation described the role of the school leader with respect to instruction. He notes that some prospective school leaders have the skills and knowledge to play the role of instructional leader, but that others need more support:

> Their role is to supervise, coach, and facilitate the instructional process within the building… Some have it intuitively. Some were such exceptional teachers and truly understood the steps of the process they used, so they were able to transfer that to a schoolwide setting... I have others who were exceptional teachers, some of the best teachers I have ever seen, but were what I call naturals. It's intuitive to them, but they are unable to communicate to others why they are so successful in the classroom and are therefore unable to coach their own staff.

In response to the perceived need to focus on instructional leadership, the KIPP Foundation has expanded training in this area for prospective school leaders. The training attempts to build school leaders' skills to conduct classroom observations (e.g., "learning walks"), analyze student work and student achievement data, and engage in strategic planning.

The KIPP Foundation also provides ongoing professional development for school leaders. These programs, which have evolved over the years, are designed to meet the on-the-job needs of KIPP school leaders. A KIPP Foundation staff member described how KIPP thinks about its responsibility to provide ongoing professional development to school leaders:

> These folks are employees in their first year, in their training year, and we're responsible for their training and therefore we're also responsible and accountable for what they did not get, and those deficits as they move into the schoolhouse. So that we are constantly looking in the mirror, at our training, our follow up, looking at the data we collect in the field and saying, "OK, what did we blow? Are there some sorts of links here? Are there patterns that we're seeing across the schools that tell us that there was a problem with either a particular class or the training program in general? Are there things we should be following up with? Do they need different opportunities for professional development?"

The primary professional development events for school leaders are the national KIPP School Summit and the School Leader Retreat.

The KIPP School Summit, a 4-day event that takes place before the start of each new school year, is an opportunity for KIPP educators from across the country to come together for an event with a dual purpose, as described by a KIPP Foundation leader: "One part bonding and one part professional development." The School Leader Retreat is just for school leaders and takes place each winter. Both the Summit and the Retreat receive overwhelmingly positive reviews from Bay Area school leaders. The school leaders appreciate the opportunity to step out of their schools, to reflect, and to learn from their colleagues. In addition, they value the Summit because it provides a place to bring their staffs as they come to understand the KIPP approach. One school leader remarked on the benefits of bringing together educators from across the network, especially as the network expands:

> The network and professional development… [are] invaluable,… just great. Expanding the network of leaders and teachers just brings more creative minds to the table, developing the talents of the network. Leadership, best practices, professional development are fantastic, always good.

Despite the substantial preparation and support the KIPP Foundation provides to school leaders, it is clear that the network cannot provide as much support as the school leaders might like or need. In fact, the KIPP Foundation has concluded that it is not in the best position to provide certain types of support. This conclusion formed part of the rationale for establishing regional entities that are in a better position to provide on-the-ground support to schools.

The KIPP Bay Area Schools regional entity was created to help support local school leaders.

The more established KIPP schools in Houston, New York City, and Washington, D.C., created regional structures as they grew to centralize certain functions and free school leaders to focus on students, teachers, and parents. To support Bay Area KIPP schools better, the KIPP Foundation encouraged school leaders in the area to establish an intermediary structure. In 2006, the five founding school leaders launched KIPP Bay Area Schools.

The initial focus of KIPP Bay Area Schools has been on financial sustainability, including fundraising and identifying potential efficiencies as a result of increased economies of scale. A leader at the KIPP Foundation explained the necessity for establishing KIPP Bay Area Schools and the early focus on financial sustainability:

> The financial situation in California created some dynamics that I don't think the Foundation had planned adequately for when they were first thinking about those schools… In the Bay Area, [establishing a collaborative] became a financial necessity and a survival mechanism… meaning that if they did not figure out a way to come up with a geographical cluster, it was a clear danger that some of the schools might not be able to make it on their own, and we at the Foundation don't have the resources—human or financial—to continue to provide that kind of direct support.

School leaders in the Bay Area also talked about their hope that KIPP Bay Area Schools will lead to increased efficiencies that will in turn reduce costs. One school leader explained:

> The main goal is fundraising, but there's also sustainability work—like looking at our copiers and cell phones, and is there money that we can save? Are there state funds that we're not accessing because we are all so busy?…. Just efficiencies, trying to be more efficient. You know we have five schools right here, why… [is each] doing everything independently?

By summer 2007, the Bay Area KIPP school leaders had handed over multiple functions to KIPP Bay Area Schools, including all institutional fundraising and bookkeeping or "back office" functions. As a result, individual KIPP schools no longer have staff dedicated to these fundraising and operations functions as many did before the launch of KIPP Bay Area Schools.

KIPP Bay Area Schools is also supporting teacher recruitment, including posting job descriptions, screening resumes, and conducting initial phone interviews. As with other areas of support, KIPP Bay Area Schools' involvement is intended to streamline the recruitment process. Before the establishment of KIPP Bay Area Schools, all school leaders posted their available jobs in the same places and screened many of the same candidates. As a KIPP staff member explained: "They've all been reinventing the wheel." The school leaders explained that the Bay Area KIPP schools were often competing for the same prospective teachers, and they are hopeful that collaborating on recruitment will help them manage this issue more productively.

Leaders at several Bay Area schools expressed hope that KIPP Bay Area Schools will eventually be in a position to provide assistance with instruction:

> If we did have an area that I would love more support in it would be instructional coaching. So we're looking into doing that as part of the KIPP Bay Area team. The Foundation person is responsible for so many different schools, but a Bay Area person would be responsible for our five schools. So, we've elected to go that route.

> I think it would be great to have someone here who could help coach the instructional leaders at these schools, and help give them support and resources. Or coach the department heads or the team leaders or something like that.

Although KIPP Bay Area Schools had not yet addressed the issue of instructional support, the KIPP Foundation's long-term plans suggest that more and more types of support for KIPP schools will be provided locally.

SUMMARY

By design, KIPP school leaders have considerable autonomy. As a result, although the Bay Area KIPP schools share many features, they do not look the same. School leaders make their mark through the staff they hire and their ways of operating. The Bay Area school leaders devote substantial time and effort to recruiting new teachers, in part because their schools have been expanding and because they have high teacher turnover. Teacher turnover, a result of both ambitious young teachers moving on and the demanding nature of the job, poses challenges for school leaders and may have implications for the sustainability of the KIPP model.

Bay Area school leaders vary in how they support and oversee teaching and learning. Although all of the school leaders establish structures to support teaching and learning, school leaders' practices and teachers' perceptions of instructional leadership vary substantially across the five schools.

In addition to assuming the typical responsibilities of school principals, because the KIPP approach costs more than California's basic school funding level, KIPP school leaders in California must engage in substantial fundraising. In fact, California's low funding levels may limit KIPP expansion in the state.

To support school leaders, the KIPP Foundation provides substantial training to prospective school leaders and additional direct assistance to schools. The Foundation continues to adapt its support on the basis of information it gathers through multiple feedback loops. Recently, the KIPP Foundation determined that local entities are in a better position to provide support, and the network is now expanding in regional clusters. In this regard, KIPP Bay Area Schools is working to ease the burden on school leaders by providing assistance with teacher recruitment, fundraising, and "back office" functions that are expected to lead to greater efficiencies.

SCHOOL CULTURE

The Bay Area KIPP schools have a distinctive culture that is recognizable immediately, even in their first year of operation. This culture is apparent in slogans and banners; in the use of chants, songs, and rituals; and in the behavior and language of students and adults. KIPP educators seek to establish and maintain a school culture that supports their mission to prepare students to succeed at the nation's best high schools and colleges. To create this culture, school leaders and teachers set high expectations for students' academic performance as expressed through clear and consistent messages. They create structured behavior management systems to explicitly teach students how to conduct themselves and to ensure that behavior does not interfere with teaching and learning. Finally, they have a strong emphasis on character development to instill values that will enable "KIPPsters" to succeed at KIPP and beyond. These three elements are interrelated and together create the KIPP culture. This chapter describes how the five Bay Area KIPP schools put these features in place—in particular, how teachers and students learn the KIPP culture and learn it quickly.

In short, we find that the self-selection of KIPP school leaders and teachers helps ensure that they share the beliefs and expectations that underlie the KIPP approach. This self-selection, coupled with opportunities for faculty and students to be immersed in the ways of KIPP before the opening of school, contribute to the rapid establishment of the KIPP culture. Consistency in implementing the culture varies from school to school, however, and is influenced by school leadership, staff stability, and students' responses to the behavior management system. Students are aware that teachers have high expectations, believe their schools to be safe places, and in general buy into the KIPP culture.

ESTABLISHING A SHARED VISION AND HIGH EXPECTATIONS

Commitment, high expectations, and consistency are at the core of the KIPP culture. KIPP school leaders establish the school culture through a combination of the teachers they hire, the initial training teachers receive, summer school, and ongoing modeling for teachers and students alike.

KIPP leaders and teachers are attracted to KIPP because they share a commitment to KIPP's mission.

KIPP school leaders bring a strong sense of the KIPP culture to the job as a result of their personal commitment to KIPP's mission and the intensive initial training they receive. School leaders begin to create their schools' culture with their selection of teachers before the school opens. The combination of their hiring criteria and the pool of teachers who apply to KIPP schools tends to produce a staff with a broadly shared belief system. As described in Chapter 3, school leaders give considerable attention to prospective teachers' alignment with the KIPP culture and their "fit" before they are hired.

On the whole, the Bay Area KIPP schools attract teachers who have a shared commitment to KIPP's mission and values and to the success of the students. As one teacher observed, "I love working in a place where the adults all have the same goal and mission. You can't make it here without believing in what you're doing." In four of the five schools, at least 90 percent of the teachers reported that their colleagues share their beliefs and values about the central mission of the school. The exception, however, was striking: just 54 percent of the teachers at the fifth school agreed with that statement. Nationally, 88

percent of classroom teachers agree that *most* of their colleagues share their beliefs and values about the central mission of the school.[47] We do not know, however, whether the values and beliefs of Bay Area KIPP teachers are similar to those of teachers nationally. Moreover, in the four KIPP schools with relatively high levels of agreement regarding the central mission of the school, the teachers unanimously agreed that their colleagues share a commitment to the success of all students; at the fifth school, 85 percent of teachers agreed with this statement. Across all five schools, the great majority of teachers (from 85 to 100 percent) reported that teachers at their school expect their students to go to college.

Before starting their jobs, new teachers are immersed in the KIPP culture through professional development, observations of experienced KIPP teachers, and KIPP summer school.

New teachers typically have a week of professional development before the start of school at their school site. At most schools, new teachers spend 1 or 2 days meeting with the school leader "to learn basic ideas," followed by time to work with the returning teachers. As one school leader explained, "Professional development for new teachers focuses on high expectations, what that means for students, and roadblocks to high expectations." KIPP school leaders typically provide new teachers with explicit guidance about their expectations for the school culture.

KIPP's 2- to 3-week summer school also serves to provide critical professional development for new teachers, with most of the professional development provided through observations and modeling. As one teacher commented, participating in summer school "allowed me to observe and watch the students in class and see all the procedures and practices in place."

New teachers also learn the culture by observing and talking with veteran KIPP teachers and by having the school leader or another more veteran staff member teach or co-teach their classes. For example, one teacher who missed the summer activities explained in response to a question about what best prepared her to teach at KIPP:

> The principal. My first week here I was team-teaching with her. It was awesome to see how she was teaching, her expectations, and the level of the students. I also did a lot of observing of other teachers to see what a KIPP classroom looks like.

At another school, a new teacher said that seeing "a strong teacher with similar students" has been particularly helpful to her as she has implemented KIPP systems in her class. Finally, teachers learn the ins and outs of the KIPP culture by attending the national KIPP School Summit that is held each summer and by visiting other KIPP schools.

Although teachers can learn to implement schoolwide systems once they are on the job, KIPP teachers agreed that it is extremely advantageous for teachers to participate in the summer activities. If all new hires are not in place when summer school and summer professional development occur and if large numbers of teachers miss the summer activities, establishing a consistent school culture can be much more difficult. For example, at one school that has struggled each year to get all new hires in place before the start of the school year, a staff member reflected on the importance of the summer for training new teachers in KIPP culture and systems:

> If teachers miss the first week of training prior to the summer school and then are not available for summer school, they have received almost no training. It is absolutely key for someone to be here over the summer…. I can't think of anything worse for someone to miss here than that.

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[47] In the National Center for Education Statistics' Schools and Staffing Survey (2004b), teachers were asked about the following statement: "Most of my colleagues share my beliefs and values about what the central mission of the school of the school should be." The response options were "strongly agree," "somewhat agree," "somewhat disagree," and "strongly disagree." In SRI's survey of KIPP teachers, the item read: "My colleagues share my beliefs and values about the central mission of the school." The response options were "strongly agree," "agree," "disagree", and "strongly disagree."

New students learn the KIPP culture quickly and early through summer school.

The first few days of summer school, which students attend before their first year at a KIPP school, as well as in subsequent school years, focus on introducing new students to the KIPP culture—that is, the expectations for academic performance and behavior, the discipline system, and core KIPP values. The purpose of this intense and early focus on culture is to help students develop the skills and behaviors necessary for success at KIPP and beyond.

From the time new students arrive at KIPP, they are told that they are extraordinary—that they are special by virtue of their commitment to do "whatever it takes" to succeed at KIPP. They are immediately introduced to KIPP terms and procedures. For example, they are constantly reminded to "SLANT," which stands for: Sit up straight, Listen, Ask and answer questions, Nod your head if you understand, and Track the speaker. They are taught specific hand signals for nonverbal praise or acknowledgement. They are also given explicit directions about a range of behaviors; staff are specific and directive about how students should conduct themselves during transitions, including how to use the restroom, how to line up, and how to behave during lunch. And, from the first day of summer school, students are required to dress appropriately in KIPP uniforms. Students receive constant positive verbal reinforcement (called "shoutouts") for engaging in desirable behaviors, and they are publicly reprimanded for unacceptable behaviors (e.g., not completing homework, not wearing their uniform). To further reinforce expectations for behavior, KIPP staff pull individual students aside for misbehaving, react quickly even to minor infractions, and model appropriate behavior (e.g., through skits and role playing).[48]

In addition to setting expectations for behavior and introducing students to the discipline system, KIPP staff introduce students to core KIPP values. For example, they place great importance on the notion of "team and family." The idea is to instill in the new KIPPsters that they are expected to support each other and be accountable to each other. Exhibit 4-1 provides an illustration of how many of these strategies are used in a little over an hour at the start of the second day of summer school at one Bay Area KIPP school.

Finally, summer school serves to reinforce expectations for returning students. As illustrated in Exhibit 4-1, returning KIPP students are expected to model appropriate behaviors, help monitor new students, and pull students aside when they misbehave.

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[48] See David et al. (2006) for a more detailed description of specific KIPP strategies, terms, and procedures.

Exhibit 4-1
Teaching KIPP Culture in Summer School: Activities During 1 Hour of the Second Day

It's almost 9 AM. Students and a few parents are waiting outside the cafeteria, and teachers are walking around introducing themselves. At 9 AM, the assistant principal (AP), says, "KIPP One" and students respond, "Be One." She gives them to the count of 10 to get in a single file line. She asks them to track her (i.e., give her their undivided attention) and gives explicit directions to go inside, take off their jackets, put their bags under the bench, take their homework folders out, and start morning work—in silence. She warns that, if they choose not to follow her instructions, they will have to do it again. As students enter the cafeteria quietly, the school leader greets each student and shakes their hands. Students do as instructed and work on their morning work as teachers and "seniors" walk around helping students who have questions and checking homework. The staff is very directive, and there are occasional reminders from the teachers about writing the correct heading at the top of their morning work and "assigning yourself" when finished with morning work.

At 9:35 AM, the school leader says, "KIPP One," and students respond, "Be One." She gives students 7 seconds to put their morning work in their folder, close their folder, place their pencil on the side, and put their nametags on. She then models how to clap, snap, and SLANT, which students repeat several times, sometimes with variations. The school leader and the teachers then give shoutouts to individual students for assigning themselves, including a girl who was engaged in a book after finishing her morning work, for going above and beyond on the homework and doing more headers than they required (they had to practice writing the KIPP header 25 times for homework), and for leaving an excellent message for a teacher (the other part of the homework was to call a teacher). Students and staff give silent praise (i.e., with hand signals) after each shoutout.

The school leader then turns the students over to a teacher by telling students to place their hands on top of the desk and to track the teacher. The teacher leads the students in a chant based on the KIPP mantra of "climbing the mountain to college." The students chant in unison and immediately track the teacher. The staff praise them for a job well done. The teacher then asks the students to track the AP. She lectures and publicly reprimands the students as follows:

> Last night, you were all given three homework assignments. You had to write the heading 25 times, you had to call a teacher, and you were given a letter describing home visits your teachers are going to do—you had to get it signed and bring it back today. Unfortunately, some teammates did not follow through on their promises. We talked a lot yesterday about what it means to be a team and family; if one member of a team doesn't do a job, everyone in the room is hurt by that. We need 100 percent out of you every day. By coming to KIPP you are going to be challenged like you have never been before. Teachers will have higher expectations than anyone has had for you before. We want to be the best because when you are the best you get into the best schools and have the best opportunities. We know you can do it. We have no doubt you can do it. We need you to know that you can do it as well. If you're not delivering on your promise, we're going to talk to you about that. By coming to KIPP, you signed on that you would do whatever it takes and try your best. At KIPP, promises are sacred, meaning that they are very important to us. We promise to give you the best education. But you have to uphold your promise, too. Unfortunately, some members of our team don't get it yet, but we'll talk to them and they'll get it by tomorrow or Friday. If I call your name, please stand up.

The AP calls on each student to find out why they have not followed up and asks for solutions from the team. She adds that the vast majority of students are standing up because their homework lacked a period, a signature, or the correct heading. She indicates an ordinary school would say that almost all the kids did their homework, but adds "That's not good enough at KIPP. We have to be the best. Do not be standing tomorrow."

Our observation of a summer school planning meeting revealed how purposeful the summer school messages are. In planning, staff pay attention to every small detail and carefully orchestrate "how each minute will unfold," as one school leader said. If large numbers of new students are not registered when summer school takes place, establishing a solid school culture can be significantly more challenging.

High expectations for educational attainment are continually reinforced.

KIPP schools are immediately recognizable for their relentless focus on college and the constant repetition of slogans, chants, and rituals. Students begin each day in their homerooms, most of which are named after a college or university. School leaders and teachers talk frequently about college and what it takes to get there. As noted in Exhibit 4-1, KIPP schools make use of chants and songs to reinforce their mission and values. Exhibit 4-2 provides examples of KIPP slogans.

Exhibit 4-2
The KIPP Credo and Sample KIPP Slogans

KIPP CREDO

"If there is a problem, we look for a solution. If there is a better way, we find it.

If we need help, we ask. If a teammate needs help, we give it."

KIPP SLOGANS

"Work hard. Be Nice."

"All of us WILL learn."

"Knowledge is power!"

"KIPPsters do the right thing when no one is watching."

"Team always beats individual."

"There are no shortcuts."

"Climb the mountain to college."
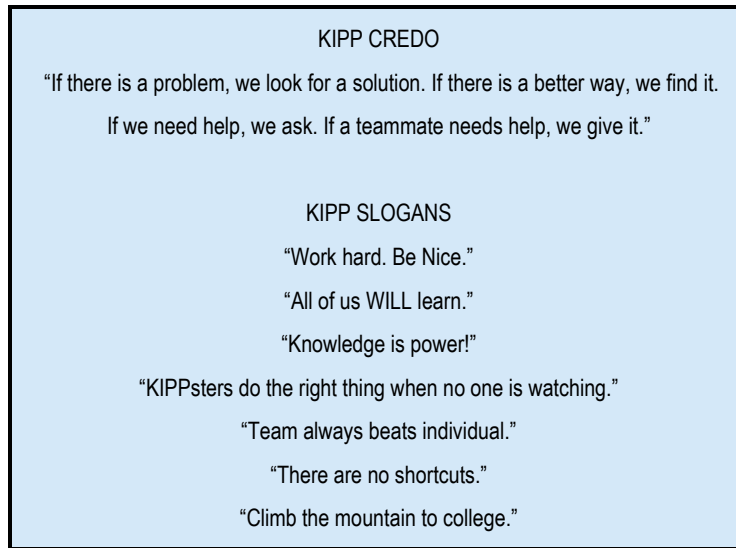
At KIPP summer school, and throughout the year, KIPP teachers and administrators often talk explicitly with students about the achievement gap. The purpose of addressing these kinds of topics with students is to instill in them a sense of urgency and to convince them that they are going to have to work hard to make up for existing deficits in their academic preparation.

CREATING A CONSISTENT BEHAVIOR MANAGEMENT SYSTEM

The KIPP Pillar "High Expectations" explicitly names a system of rewards and consequences for academic performance and behavior: "Students, parents, teachers, and staff create and reinforce a culture of achievement and support through a range of formal and informal rewards and consequences for academic performance and behavior."

Shared beliefs and high expectations are one thing. Translating them into a discipline system that develops the desired behaviors in KIPP students is another, and administering such a system consistently across all the staff is still another. Achieving this goal of consistent and effective discipline is challenging to all, and some KIPP schools have more success than others in doing so.

KIPP educators work to influence the values as well as the behaviors of their students.

KIPP's motto is "Work Hard. Be Nice." In practice, this translates into an explicit focus on the link between effort and achievement and on the core KIPP values of respect, responsibility, and teamwork. As described earlier, these values are introduced to students during summer school. For example, in explaining the value of teamwork to new students at summer school, one school leader said to students:

> If someone doesn't do their job at KIPP, it affects the whole school. If someone doesn't show up or doesn't have their homework—that affects the group. We have a big responsibility. We have to take care of ourselves, make sure we're awake on time, make sure we're in our uniforms. But we also need to look out for each other. We help people who are struggling. If we see a teammate who needs help, we help out. If we see a teammate making a poor choice, we help them make a better choice. We help each other get to college.

Teachers reinforce these ideas through the use of KIPP slogans and the ongoing use of the KIPP terms and procedures introduced in summer school. As one teacher observed, "I know that their character is being shaped by us as well, and it's really rewarding to see that we're really affecting them." KIPP's

emphasis on building students' character is meant to instill behaviors and values KIPP feels students need to be successful in school, college, and life. Character education is woven into every aspect of the school, from morning meetings and daily classroom lessons to clubs and Saturday school to the end-of-year field trips. Moreover, KIPP attempts to develop students' "cultural capital"; for example, through electives and enrichment activities offered during the extended school day and Saturday school and through field trips to places outside of the Bay Area in order to expose students to opportunities they may not experience otherwise.

Each school has established an explicit system of rewards and consequences that is adjusted over time.

All five Bay Area KIPP schools have created behavior management systems to explicitly teach students how to conduct themselves and to ensure that behavior does not interfere with teaching and learning. These behavior management systems consist of explicit rewards for following the rules and consequences for breaking them. For example, to motivate students, the schools use a system of "paychecks."[49] Each week, students start with a certain "dollar" amount (i.e., points) on their paycheck and receive or lose points on the basis of their behavior. They earn points toward their paycheck for demonstrating appropriate KIPP values, such as helping a teacher or teammate without being asked. They lose points from their paychecks for a variety of infractions, such as being tardy to school or class, unexcused absences, incomplete homework, disrespecting a teacher or teammate, not being in uniform, or not following directions. Students can use the "dollars" from their paycheck to purchase items from the school store (e.g., school supplies, snacks, KIPP clothing) and to earn privileges (e.g., attending an end-of-the-year field trip). KIPP staff use the paychecks as a way of communicating with parents about their child's behavior, and require parents to sign and return the paycheck every week.

When the weekly paycheck drops below a certain point total or when a student consistently breaks school rules or engages in egregious behavior (e.g., fighting, cheating, lying), that student is assigned to the "bench," a form of in-school suspension.[50] Although each school's bench system differs, the basic premise is the same: when students are on the bench, they are identified publicly and isolated from their teammates. They must sit separately from their teammates during class and lunch; they are not allowed to talk to their teammates without permission; and they lose privileges, such as attending field trips. Students must earn the right to get off the bench (e.g., by maintaining a particular average on their paychecks for a series of days, by writing letters of apology to their teachers and teammates).

As the schools have grown, KIPP staff has made changes to the behavior management systems to respond to aspects that were not working well and to adapt to the different needs of older students. Two schools found that the consequences from the paycheck and bench were not immediate enough, given the delay between the time the paycheck dollars were deducted and when the students were benched. One school leader explained, "We talked about not being happy with the way the bench worked.… [I]t is not an immediate consequence because you accumulate for a week and then sit on [the] bench for a week... I don't feel like the bench changed behavior." To reshape their behavior management system, staff at this school worked with a consultant to implement a new system that incorporates direct and immediate responses to unacceptable behavior, including a hierarchy of responses beginning with the classroom teacher. The school continues to use a paycheck system where students earn points for appropriate behavior (e.g., being on time, completing their homework, wearing their uniform), but it no longer has a "bench." Commenting on the new system, an AP said, "I like our system this year because it was established to get kids to sit down and speak with the adults that are in their lives." Teachers believe the new system is more positive than the old one, but still needs "ironing out." As one founding teacher

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[49] KIPP "paychecks" are based on a point system, not real dollars.
[50] Schools use a variety of terms to refer to their in-school suspensions systems, including, zone, porch, basecamp, and bench. To protect the identity of individual schools, we use only the term "bench," even inside direct quotes.

observed, "Every year we have changed the paycheck system. I still don't think we have found the right way."

The other school, concerned about the negative atmosphere created by paycheck deductions, also made substantial changes to its behavior management system (e.g., separating the paycheck from the bench). Students now earn dollars toward their paycheck, but do not receive deductions, and they are only put on the bench for any 1 of 12 infractions, such as having a shirt untucked or chewing gum. The assistant principal described why they changed the process:

> Going into year 3, our bench completely changed. In year 1 and year 2, paycheck and bench were linked, and a lot of KIPP schools do this: if your paycheck is below a certain amount, you are on the bench. We found that it wasn't immediate enough and it didn't isolate the behavior so that we found that behaviors weren't changing because there was no change management with the student.

Teachers at the school reported that the changes to the behavior management system have been effective. One teacher reflected, "There's a drastic difference in the culture of the school and student behavior since we've made those changes. I think the new system has created a positive climate… I would say overall it works for most students."

Schools have also made changes to their behavior management systems as students have progressed through the grades. The systems were initially developed with fifth graders in mind, and the changes are an acknowledgement that students' needs change as they mature through adolescence; that is, as students near high school they need to be more independent and assume greater responsibility for their behavior. A founding teacher explained, "We thought about their age, and developmentally what's going to work best for them, motivate them."

Among the changes to accommodate the needs of upper grade students, at least two schools have incorporated student discipline committees that determine consequences for peers who misbehave. One of the schools modeled their student discipline committee for seventh and eighth graders after one of the other Bay Area KIPP schools; teachers at the school believe the student discipline committee has worked well. As one teacher said, "I think it's really awesome that we have students who are part of our discipline conversations, affecting how kids do or do not fulfill their consequences." As part of the changes at this school, they are considering phasing out both bench and the paycheck system for eighth graders.

The evolution of these behavior management systems reflect the schools' maturation process: initially schools adopted many of the practices they had seen at other KIPP schools; over time, they modified what they saw elsewhere to better meet their local needs. A founding teacher described the challenge facing a new school:

> The first few years, you are wanting to succeed, you are wanting your students to succeed and all you know is what other successful schools have done—and obviously what you bring to the table from your own past experiences… We wanted to try to do what we knew worked elsewhere, so we would try to copy things but not take into consideration: Does that fit our staff personality? Does that fit our leadership? Does that fit our kids?.… I don't think that had anything do with us feeling like we had to do it a certain way; it was more like we didn't really know any better.

All schools strive for consistency in managing behavior, but some struggle more than others to achieve this goal.

School leaders and teachers agree that consistency in responding to behavior—both negative and positive—is essential for a behavior management system to be effective. However, achieving this goal is challenging, especially with many new teachers. Keys to achieving consistency are site leadership and opportunities for teachers to talk to and observe each other. As one teacher explained, "It's easy to be on the same page" because the teachers check in with each other constantly. Several new teachers said that watching other teachers and receiving their feedback were critical in helping them pick up the school culture. One teacher said, "It was important for me to see that interaction and the behavior management

modeled for me so I knew what to expect and knew where to set my expectations." A teacher at another school noted that:

> Ninety percent [of learning the culture] comes from being around other teachers—not what they do but their attitude. A big part of the culture was seeing how other teachers react to kids and how they respond.

Relying on communication among teachers and peer observations requires structures that support these activities and a staff culture that embraces this kind of learning. For example, teachers from all five schools mentioned the importance of regular communication through weekly grade-level meetings for establishing and maintaining consistency in the school culture and the behavior management system. Although school leaders and founding teachers initially are responsible for establishing the school culture and implementing a behavior management system, as schools grow and adapt their systems for older students, the culture and discipline become increasingly localized at the grade level. While the expectations for student behavior are the same across grade levels, the approach to discipline differs, as described earlier. Regular communication among staff members appears to be critical to achieving a "tight" school culture.

Despite the importance school leaders and teachers place on consistency in the behavior management system, school faculties varied in their perception of whether the staff enforces school rules consistently. Across the five schools, 70 percent of teachers agreed with the statement that teachers at their school consistently reinforce rules for student behavior. At two schools, teachers were unanimous or nearly unanimous in their agreement with the statement. In contrast, at three schools, there was much less consensus among teachers, with just 46 percent of teachers at one school agreeing (see Exhibit 4-3).

Differences among schools in regard to the consistency with which behavior management systems are implemented appear to be associated with differences in responses to other survey questions. For example, those schools with the least agreement among teachers regarding the consistency of discipline tend to be the same schools in which a greater proportion of teachers expressed discomfort or challenges with discipline. Exhibit 4-3 illustrates the wide range of teacher responses across the five schools for three questions: whether maintaining an appropriate response to misbehavior is challenging (with agreement ranging from 23 to 72 percent), whether finding the right incentives is a struggle (with agreement ranging from 15 to 89 percent), and whether teachers are uncomfortable with school discipline policies (with agreement ranging from 0 to 62 percent).

Exhibit 4-3
Teacher Reports on Their Schools' Behavior Management Systems
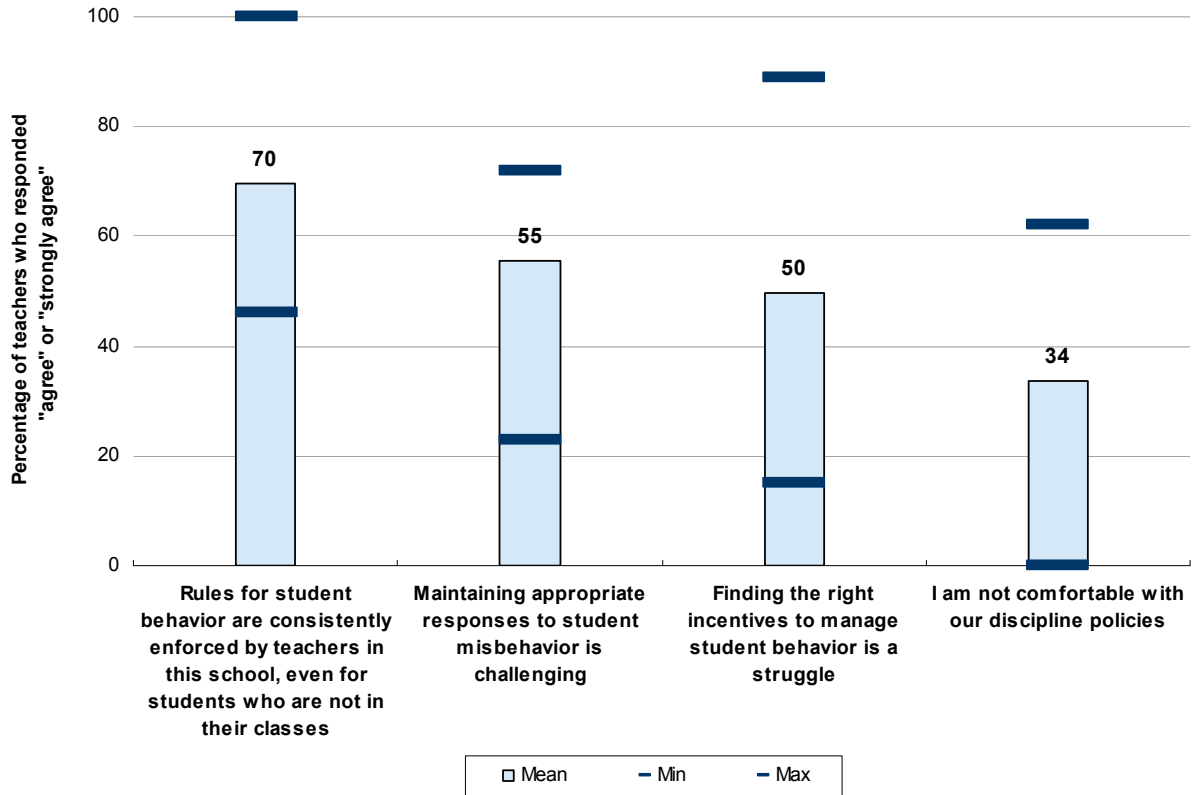
The three schools with less agreement among teachers about behavior management continue to struggle with the effectiveness of their discipline systems and corresponding issues of classroom management. In interviews, school leaders and teachers at these schools noted that it is more difficult to ensure consistency when new staff are numerous. One teacher observed that, when many teachers are new to KIPP, getting everyone up to speed and setting norms for behavior can be difficult. KIPP staff at these schools also noted that the discipline system does not work for all students, and, as a result, the schools continue to modify their systems. Moreover, as the survey results suggest, these schools may be taking an approach to discipline that leaves some teachers uncomfortable, and therefore they may be less willing to fully implement the discipline system. Finally, staff at two of these schools observed that leadership and communication around discipline are less strong than they need to be; that is, given the overwhelming demands on time, no one at the school leadership level or at the grade level focuses on developing the culture, ensures consistency in the implementation of the discipline system across and within grade levels, and supports struggling teachers with classroom management.

Although nearly all teachers (95 percent) reported that they feel either adequately or well prepared to handle a range of discipline situations, those reporting that they feel well prepared ranged from 30 to 77 percent across the five schools. The schools with the lowest proportions of teachers reporting that they feel well prepared are the same schools that struggle the most to consistently respond to student behavior.

KIPP educators attribute student success to the combination of high expectations and consistency in the behavior management system.

Bay Area KIPP teachers were nearly unanimous in rating "explicit and high expectations for student learning" (98 percent) and "consistent enforcement of school rules" (99 percent) as important or extremely important features of their school in helping students succeed academically (see Exhibit 4-4). Likewise, 93 percent of teachers rated the "focus on going to college" as an important feature of their school. Teachers' perceptions of the importance of each one of these factors surpassed the importance they placed on having an extended school day. As one school leader explained, "Our priorities are always culture and instruction. And I put culture first, but really culture yields academic achievement."

Exhibit 4-4
Teacher Ratings of the Importance of Selected Features of KIPP
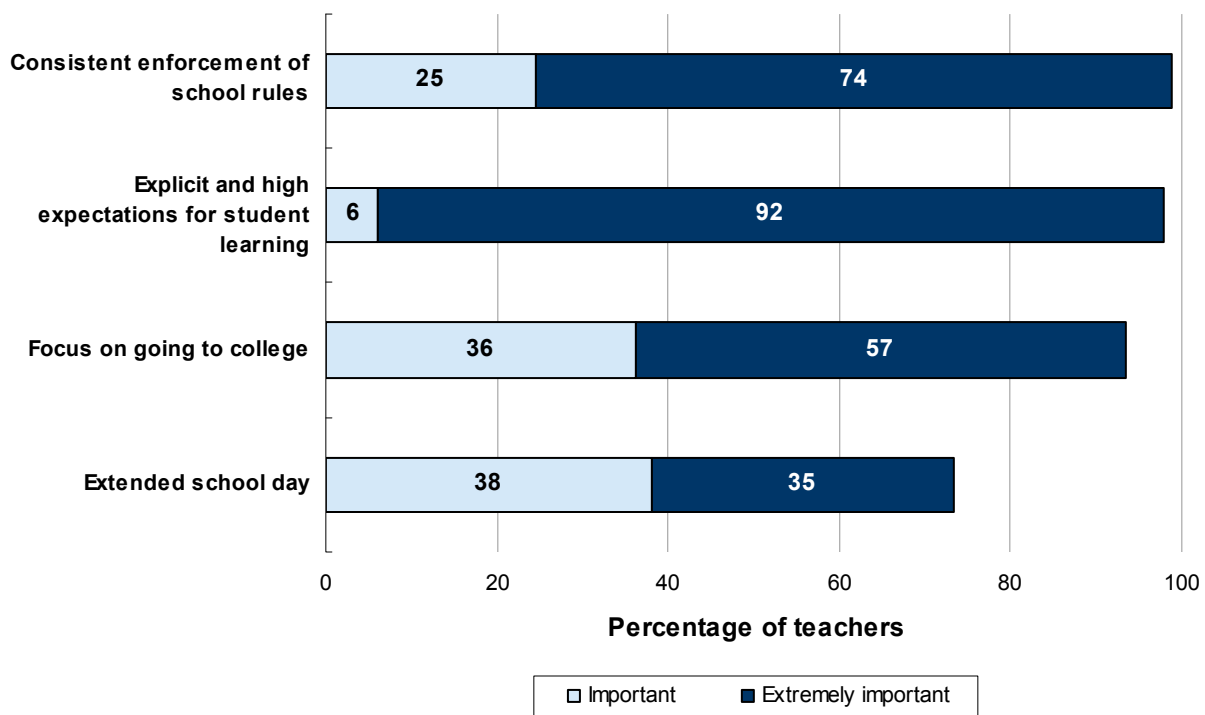
See Exhibit C-7 for data on other selected features.

Moreover, teachers believe that the structured behavior management system allows them to focus on instruction. At four Bay Area KIPP schools, 83 to 100 percent of teachers agreed that clear and consistent rules for behavior allow them to focus on instruction. As one teacher explained, "With the KIPP model, just being able to have consistent discipline means that you really can teach." At the fifth KIPP school, where only 33 percent of teachers reported being able to focus on instruction as a result of having clear and consistent rules for behavior, the school leader acknowledged that the school "culture was not established this past year."

On an open-ended survey question asking teachers about lessons that KIPP holds for traditional public schools, the two most frequent response categories related to the schools' discipline systems and high expectations for students. One teacher, for instance, wrote, "KIPP's consistent discipline policy and constant communication among the teachers… [are] crucial to the success of adolescents." A teacher in another school similarly noted KIPP's "emphasis on high expectations and culture of no excuses for

students, teachers, and families." Likewise, when school leaders and other staff in school leadership positions were asked about the lessons from KIPP, several also spoke to the issue of school culture. As one school leader said, "[It] comes down to the school culture. If you establish a strong school culture with high expectations where every teacher truly believes in every child, then that goes a long way." An AP at another school agreed, "The fact that we're all on the same page around the discipline and the school culture is huge. I think that that in itself makes such a difference."

STUDENT PERCEPTIONS OF SCHOOL CULTURE

Students in the five Bay Area KIPP schools do not necessarily share adults' perceptions, particularly when it comes to issues of behavior and fairness. They have, however, internalized the goal of college and, by and large, accept the behavior management system. KIPP students also describe positive relationships with adults and their peers.

Students are aware of teachers' high expectations for their success.

KIPP's relentless focus on college is reflected in students' goals for the future. Almost all Bay Area KIPP students (95 percent) believe that their school will help get them to college, and more than four in five (85 percent) reported that their peers plan to attend college.

Students also believe that their teachers have high expectations for them. Virtually all students reported that most or all of their teachers expect them to work hard (98 percent) and believe that all students can do well (95 percent). Students' perceptions of teachers' expectations are similar across schools. From 94 to 100 percent reported that most or all of their teachers expect everyone to work hard. Likewise, from 87 to 99 percent of students reported that most or all of their teachers believe that all students can do well.

In fact, in their responses to an open-ended survey question asking how their KIPP school differs from other middle schools in their community, several students in all five schools wrote about their sense that teachers expect them to go to college and that teachers push them hard to meet this goal. As one student wrote, "Some of the ways that I think KIPP differs from other middle schools is that we have excellent teachers who care about our learning and who don't think their job is done until we graduate from college." A student at another school wrote, "KIPP is very different to other middle schools, in my opinion. The reason is because here the teachers really keep you focused on going to college." Similarly, a student at a third school noted, "The teachers never give up on us and always set high expectations for the students to reach."

These findings are consistent with student ratings of the most important features of KIPP schools. Nearly all students rated the "focus on going to college" (98 percent) and "teachers who are committed to my learning" (97 percent) as somewhat or very important features of KIPP (see Exhibit 4-5). Fewer students, however, rated structural features of KIPP, such as the longer school day (78 percent), summer school (74 percent), Saturday school (61 percent), and uniforms (50 percent) as somewhat or very important.

Exhibit 4-5
Student Ratings of the Importance of Selected Features of KIPP
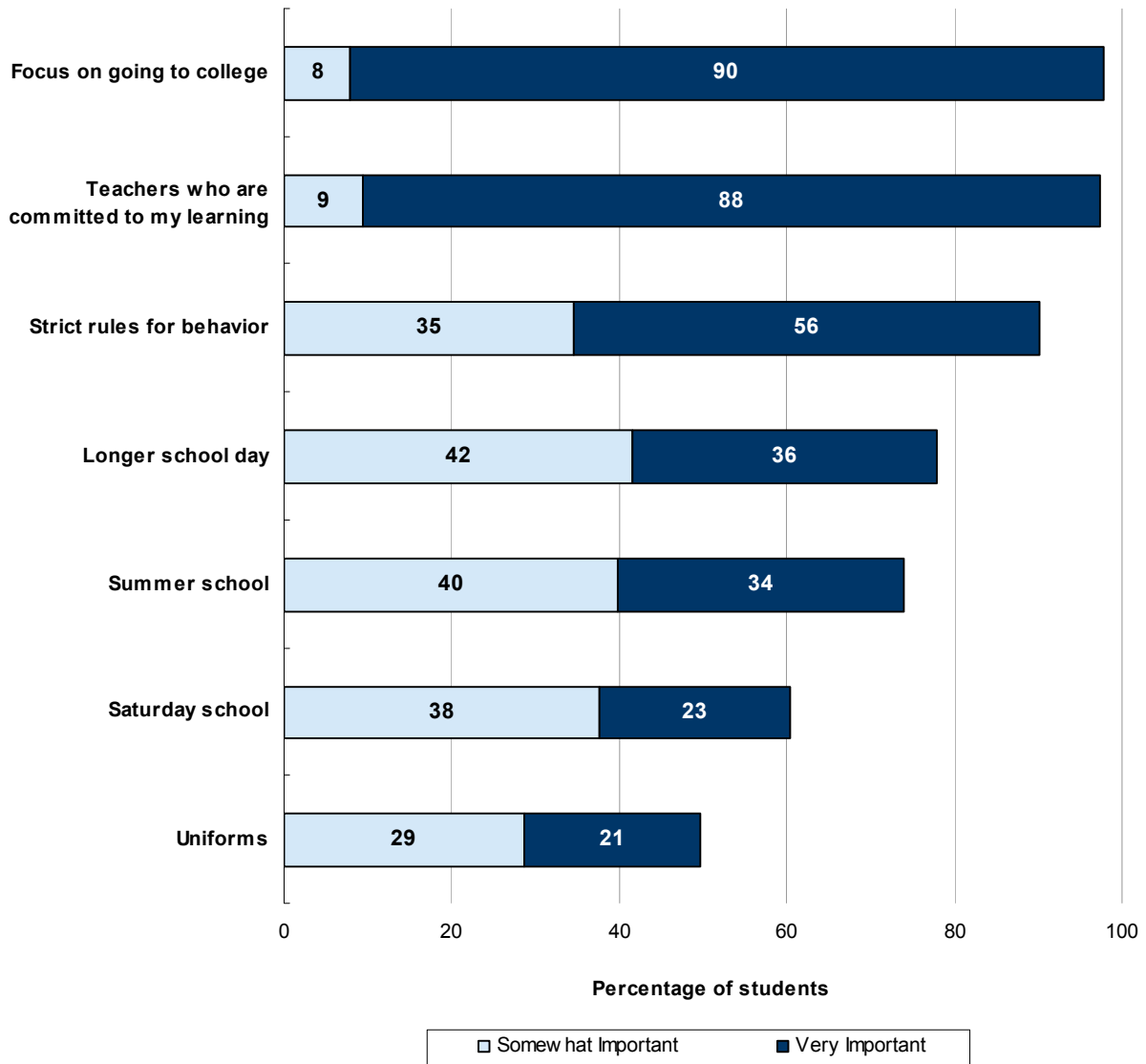
Most students know the school rules and report that they are consistently enforced, but students vary by school in regard to whether they believe the rules are fair.

In addition to KIPP's focus on college and committed teachers, students reported that the strict discipline system is another key feature of KIPP schools. In our survey of students, more than half (56 percent) believe that "strict rules for behavior" are a very important feature, whereas another one-third (35 percent) rated strict rules as somewhat important (see Exhibit 4-5 above). Nearly 9 in 10 (88 percent) believe that the school rules are strictly enforced (see Exhibit 4-6). However, slightly more than half of KIPP students (56 percent) believe that the school rules are fair; this figure ranges from a high of 84 percent at one school to a low of 37 percent in another school. Student reports also varied by school in regard to whether they know the school rules (ranging from 78 to 94 percent) and whether consequences are consistent (ranging from 60 to 81 percent).

Exhibit 4-6
Student Reports on Their Schools' Rules
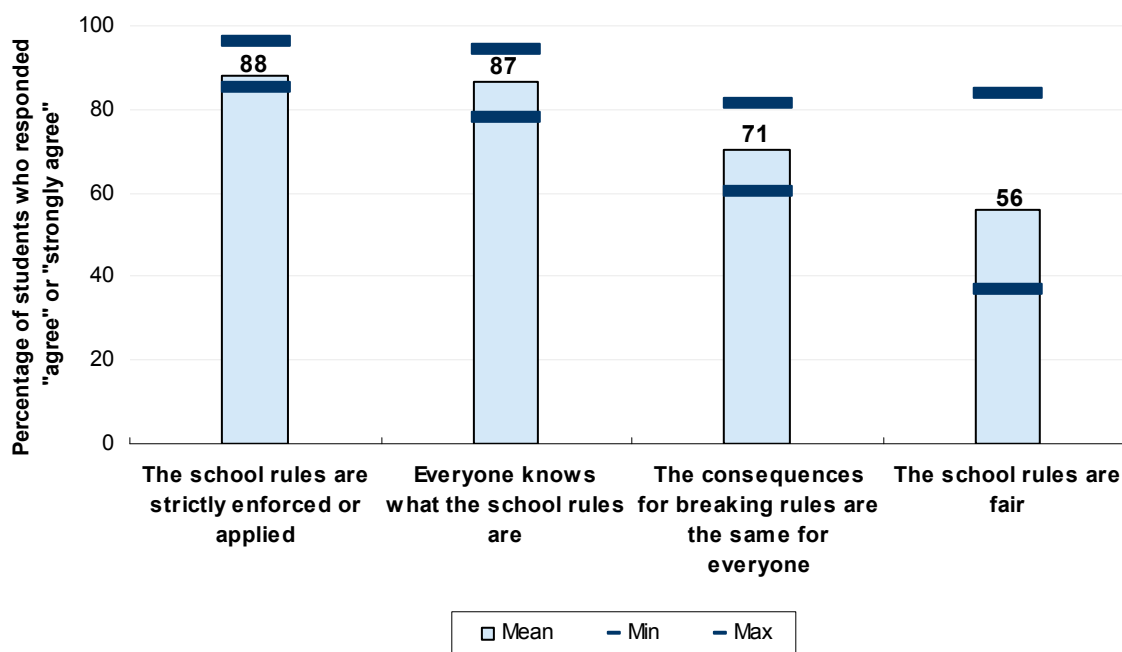
When asked an open-ended survey question about what differentiated their KIPP school from other middle schools in their community, many students in all five schools wrote about the "strict" environment. Although students on the whole perceive that KIPP schools are stricter than other middle schools and have more rules, some students noted the benefits of a highly structured discipline system. As one student wrote, "Here it's very strict and it doesn't give us a lot of freedom, but it will get me to college." Similarly, a student at another school wrote, "We have strict rules, but all of that is just for us to get to college. Some rules are harsh, but that's for us to learn our lesson." A student at a third school noted, "I think that KIPP schools are better than other middle schools because they have stricter rules and discipline for students to learn from their mistakes," and a peer at the same school observed, "Even though they are way stricter, it will only benefit us in the future." More specifically, some students noted that, in contrast to other middle schools in their community, no teasing, bullying, or fighting is allowed at their KIPP school and that they are "taught how to act [properly]."

Others reflected the view that their school is too strict; in some cases, students' comments suggested that the discipline may at times be inappropriate. As one said, "They want their students to pretty much be perfect in a way, like they don't really accept any mistakes. If you mess up only a little, you get into a lot of trouble. I think they take their punishments way too far." A student at another school reported, "I strongly think that some teachers should lighten up," while a peer at the same school wrote, "Teachers scream a lot. I hate when they scream at you." A student from yet another school said, "I think the teachers expect us to be like robots." These comments about the discipline system suggest that the intention to provide a structured and strict environment for learning may be experienced by some students as overly harsh or punitive, illustrating the challenge KIPP educators face in maintaining the delicate balance between "tough love" and nurturing. Overall, despite these concerns about the discipline system, most Bay Area KIPP students (82 percent) reported that teachers treat them with respect.

Students report positive caring relationships with their teachers and their peers.

Not only do KIPP students believe that their teachers have high expectations for their learning and behavior, they also feel that their teachers care about them. Four out of five students reported that there is an adult at the school whom they can talk to (81 percent) and that there is at least one adult who cares about them (84 percent), although responses vary both within and across schools (see Exhibit 4-7). The small size of KIPP schools may help to foster closer relationships between students and teachers and to create an environment where teachers get to know students well.

Many students described the bond between teacher and student as a distinctive feature of KIPP. One wrote, "The way KIPP differs from other middle schools is that the teachers really care about you and want you to go to college. The teachers here really love you... I love this place." A student at another school echoed this sentiment: "KIPP differs from other middle schools because of the teachers and students. Students are more dedicated to their schoolwork than other middle schools. Teachers honestly love us and truly care about our learning." A student at a third school wrote about how she came to view teachers differently after her experience at KIPP:

> I think that KIPP always strives for excellence, but what separates us the most is the relationship building between teacher and student. Before I ever came to KIPP, I really didn't care about what my teachers had to say. I just thought that they did things because they needed to, not because they wanted to. When I came to KIPP, I realized that the way I saw my teachers was different. I started to care more about them like they were a part of my team and family. I realized my teachers do care and it's part of my mountain to go to college.

Exhibit 4-7
Student Reports on Their Relationships with Adults and Students at Their Schools
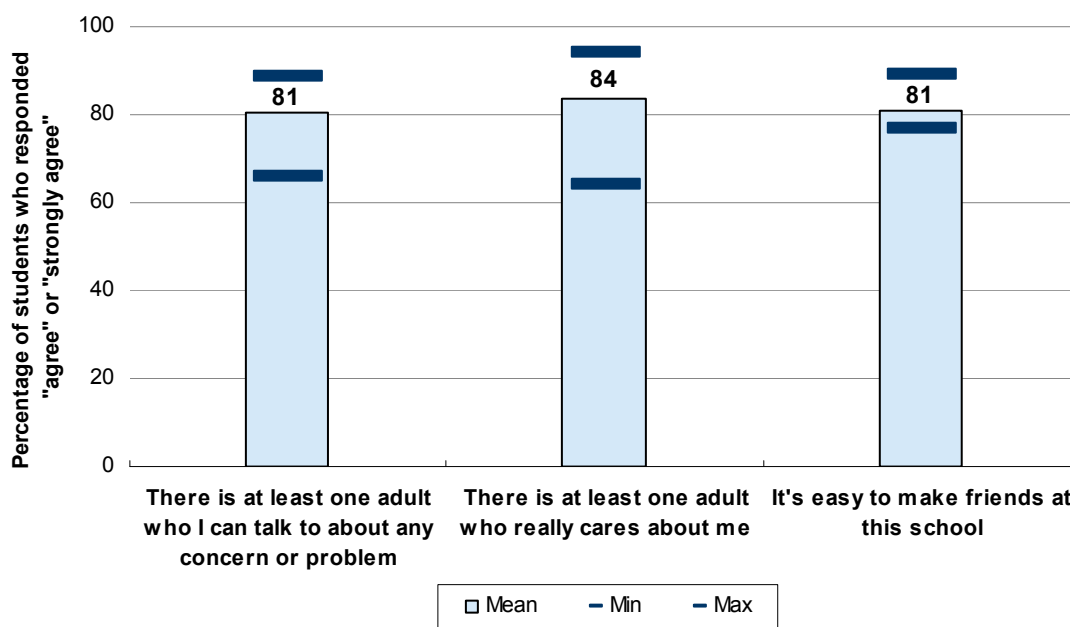
Contributing to students' perceptions of their relationships with adults at their school is that teachers make themselves available by phone every school night until 9 PM. Nearly all teachers (95 percent) across the five schools reported that they are available by phone to students in the evening. As one teacher said, "There's someone paying attention to the student. The fact that students can call us until 9, there is already this open line of communication and students use it." A student agreed, "Whenever we need help, they are always there."

In addition to reporting positive relationships with adults, most students (81 percent) feel that it is easy for them to make friends at their school (see Exhibit 4-7 above). As one student commented, "KIPP is like a home, and I am always happy to come to school and learn"; a student from another school observed, "The students spend so much time together, we become a 'family.'" A teacher concurred, "Socially, it is a safe environment."

Although most students and teachers agree that the KIPP culture creates a safe environment for students, KIPP schools are not immune from unacceptable behaviors.

In our previous report, we noted that students said they felt much safer at KIPP schools than at their previous schools because undesirable behaviors, such as fighting and teasing, are not tolerated. These findings are consistent with our surveys of teachers and students. Nearly all teachers (91 percent) agreed that their school is safe for students and teachers, with some variation by school (ranging from 70 to 100 percent). Four in five students (79 percent) reported that they feel safe at their school, again with some variation by school, ranging from 66 to 95 percent. In fact, several students identified safety as a key area of difference between KIPP and other schools in their community, noting for example that "at KIPP, our safety is first" and "KIPP cares about our safety." As one student wrote, "The difference between KIPP [and] a community middle school is that there is no fight[ing] or teasing and you feel safer than at an ordinary school."

Despite overall feelings of safety, one out of five students (21 percent) reported that fighting occurs at least sometimes at their school; across the five schools, the percentage of students reporting that fighting takes place ranged from 7 to 38 percent (see Exhibit 4-8). Other types of unacceptable behaviors (e.g., bullying, cheating) were more prevalent and, in some cases, the variation by school was even more dramatic. For instance, nearly 6 in 10 students (58 percent) reported that bullying or teasing takes place at their school, ranging from a low of 27 percent at one school to a high of 73 percent at another. What we do not know is the proportion of KIPP students involved or the frequency with which they are teased, bullied, or involved in fights. Furthermore, these types of behaviors are not unique to KIPP schools. In fact, a recent study found that school safety is a major challenge for middle schools.[51] Although serious forms of violence are rare among this age group, "middle school students are at highest risk of less physically serious harm" such as bullying and being threatened.[52]

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[51] Juvonen et al., 2004.
[52] According to one study, in 2001, 14 percent of sixth graders were bullied (Young, 2002 as cited in Jovonen et al., 2004), whereas another study found that 22 percent of middle school students reported being threatened with a beating (Gottfredson, et al., 2000 as cited in Juvonen et al., 2004).

Exhibit 4-8
Student Reports on the Frequency of Unacceptable Behaviors at Their Schools
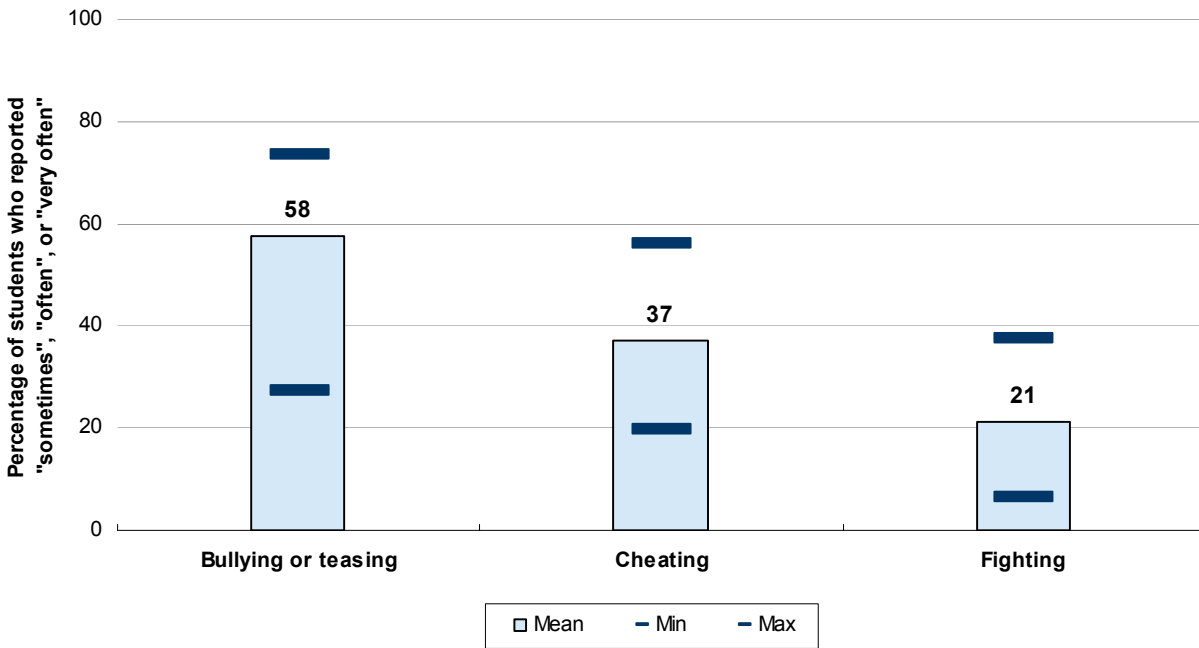
SUMMARY

KIPP schools are characterized by high expectations, including a focus on going to college, and a structured discipline system that reinforces desired behaviors and values. The KIPP culture is established quickly, due in large part to the intensive training of school leaders, the self-selection and hence the shared beliefs of the teachers, and the intensive summer preparation of students and teachers before the opening of school.

School leaders and teachers work hard to constantly and consistently communicate KIPP values and expectations through slogans, chants, and rituals, and via a strict behavior management system that rewards students for following rules and imposes consequences for students for failing to do so. The result is an identifiable culture, but one that varies from school to school. Variation in consistency in implementing the KIPP culture appears to be associated with differences in school leadership, students' responses to the systems and structures, and staff stability.

For the most part, students buy in to the KIPP culture and behavior management systems, and they know their teachers have high expectations for them. Although KIPP schools are not immune from the undesirable student behaviors that traditional public schools face, they are generally perceived as safe places where students believe that the adults care about them and their learning and where students generally get along with one another.

CURRICULUM AND INSTRUCTION

Earlier chapters described positive achievement results across the Bay Area KIPP schools and how the schools create a culture that focuses on achievement and supports teaching and learning. KIPP emphasizes academic achievement, embodied in its Focus on Results and High Expectations pillars, including the expectation that students will be on track for a college preparatory curriculum in high school. But KIPP does not prescribe specific teaching practices or curriculum. The KIPP approach affects curriculum and instruction most directly by the amount of time students spend in school—time that each school can allocate as it sees fit. This chapter describes how instructional time is organized during the school day, choices staff make about curriculum and instruction, and how teachers improve their practice.

In a nutshell, we find that KIPP's long school days, together with its expectations for student achievement and behavior, provide considerably more time devoted to instruction than do regular public middle schools. Teachers have substantial discretion over their work with no required curriculum or instructional approach, although most school leaders exercise influence through encouragement and feedback based on observations. Teachers design their curriculum and instruction around state standards and assessments as well as their own formative assessments. They have opportunities to learn both inside and outside their schools, and they receive varying types and amount of support for improving their practice.

INSTRUCTIONAL TIME

KIPP is well-known for its long school days and additional extended instructional time for students, including summer school and Saturday school. Teachers are also available each evening for telephone calls from students concerning homework.

Students attend Bay Area KIPP schools for approximately 9.5 hours each day, much of which is spent in academic instruction.

KIPP school days are approximately 9.5 hours long compared with 6 or 6.5 hours in most public schools. Within this block of time, all five Bay Area KIPP schools allocate at least 85 minutes daily to English language arts (ELA) and mathematics. Scheduling the remaining time differs among the schools and across grade levels within a school. Some schools provide 180 minutes of ELA for fifth and sixth graders, a 90-minute reading class, and a 90-minute writing class. Science and social studies share another 85 minutes or more, with some schools alternating those two subjects each day, and other schools switching between the two subjects after every curricular unit. Typically, two core classes are held before lunch and one after, leaving a sizable chunk of time before the school day ends at 5 PM.

In addition to the core academic classes (mathematics, ELA, social studies, and science), all the schools offer enrichment courses and some form of physical activity. They also provide time for study halls and a range of interventions for students who are struggling. If additional tutoring is needed, it takes the place of study hall and physical education. The hour after school, between 5 and 6 PM, is used for a variety of compensatory and disciplinary activities at some schools, and for sports or clubs at others.

Most schools provide one or more enrichment course during the regular school day. Across the schools, offerings include clubs, art, music, dance, theater, film, mathematics teams, literary magazines, and Spanish. The particular types of arts and enrichment classes offered depend on a variety of factors, including the talents of available staff. For example, one school has a teacher with expertise in drama, which became the focus of its arts activities. Every student at the school takes a course in drama, and

productions are mounted throughout the school year for the school and community. Two schools have orchestra programs in which nearly all students participate.

The schools vary in regard to how they allocate noncore academic class time, as well as how they organize activities during the hour or so after school. Schedules also differ across grade levels in each school. For example, one school has music and physical education for all students, Spanish for seventh and eighth graders, and sports and clubs after school for students who wish to participate. Another school has no arts and enrichment classes during the day, but offers several optional classes after school until 6:30 PM. At another school, additional reading intervention time at one grade level is offered instead of art, physical education, and music. Schedules can also vary by the day of the week; for example, some schools alternate science with social studies classes. Exhibit 5-1 presents a sample daily schedule for the fifth grade.

Exhibit 5-1
Sample Daily Schedule for the Fifth Grade

Time	Activity
7:30 AM – 8:15 AM	Homeroom/morning meeting/homework check
8:20 AM – 9:50 AM	Reading
9:55 AM – 11:25 AM	Mathematics
11:30 AM – 12:00 PM	Lunch/recess
12:05 AM – 1:35 PM	Social studies/science
1:40 PM – 3:10 PM	Writing
3:15 PM – 4:15 PM	Arts/electives/physical education
4:15 PM – 5:00 PM	Study hall/intervention/homeroom
5:00 PM	Dismissal
5:00 PM – 6:00 PM	Sports and clubs

KIPP students attend summer school and Saturday school.

KIPP schools further extend instructional time by requiring summer and Saturday school. All five schools hold a 2- to 3-week summer school each summer, typically for 4 hours each day, as well as periodic Saturday school throughout the year.

Summer school is tightly organized to serve multiple purposes. In addition to learning about basic expectations for behavior—from how to line up, to silently beginning their morning work (described in Chapter 4)—students receive instruction in the core academic subjects. New and returning students engage in academic classes each day during summer school; the classes focus on instilling appropriate classroom behaviors and on introducing and reviewing academic content. In particular, for incoming students, "summer school is a time to build a foundation for math," a teacher observed. New students learn how to "roll" their numbers—a way of quickly learning the multiplication tables through a group chant and hand motions. All students have homework assignments just as they do during the school year.

Summer school also offers teachers an opportunity to assess students in reading, writing, and mathematics and to use these data to plan their instruction for the upcoming school year.

Schools vary in how they use Saturday school. In four of the five schools, Saturday school explicitly involves enrichment activities, such as yearbook, martial arts, computer classes, and photography. Although the schedule varies by school, Saturday school is typically held every other week and lasts 3 or more hours. The activities are meant to provide students with opportunities that they might not experience otherwise and are part of KIPP's efforts to develop students' "cultural capital."

When asked to rate various elements of KIPP in terms of the extent to which they help students succeed academically, fewer than 20 percent of teachers rated Saturday school as important or extremely important.[53] In interviews, most teachers who were asked about Saturday school commented that little would be lost without it and that eliminating it would ease their already heavy schedule. As one assistant principal commented:

> I feel that Saturday school is completely unnecessary, and, for sustainability purposes, I feel like it's more harmful than helpful. Our kids LOVE Saturday school, but I feel like it's ridiculous to ask our teachers to work 7 days a week. Because if you're working Saturday school that week, you are planning the next day and that's ludicrous.

At the same time, teachers placed a much higher value on summer school. Roughly two-thirds of teachers rated summer school as important or extremely important in helping students succeed academically.

KIPP culture and homework policies contribute to maximizing classroom time spent on instruction.

In our earlier report, we noted that roughly two-thirds of the school day is spent on instructional activities—a ratio roughly equivalent to that reported for public elementary schools. However, KIPP's extended day results in 60 percent more instructional time than a typical school affords. In most of the ELA and mathematics classes we observed, we found that more than 80 percent of the time was spent on instructional activities in contrast to enrichment, procedures, or culture (behavior).[54] This finding compares favorably with the results of other similar research in which 73 percent of time in upper elementary grades was devoted to instructional activities.[55] Similarly, another study found that 67 percent of time in low-track high school classes was spent on instructional activities.[56] Classes for high-track students were comparable to KIPP classes, with 80 percent of the time devoted to instruction.[57] We observed that the influence of KIPP culture on student classroom behavior, including the requirement for students to complete their homework, facilitated such efficient use of class time.

Homework plays a large role in KIPP schools. Students are expected to do homework every night, and each school day begins with a homework check, with consequences if it has not been completed. At the same time, KIPP teachers go out of their way to help students complete their homework. Time is typically set aside during the school day for students to work on their homework, and after school one or more teachers take turns helping students with their homework. In addition, teachers commit to accepting phone calls from students until 9 PM. The number of calls teachers receive varies widely. One teacher said that she gets from 2 to 5 calls per evening, and a call can last from 2 to 25 minutes. She added: "If I do my job in class, the homework calls are not overwhelming."

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[53] In contrast, more than 90 percent gave these ratings to several elements, including consistent enforcement of rules, focus on college, and strong teaching (see Exhibit C-7 in Appendix C).

[54] See our previous report on early implementation of the KIPP approach in Bay Area schools for more details on the time-use analysis (David et al., 2006).

[55] Goodlad, 2004.

[56] Oakes, 2005.

[57] Oakes, 2005.

Chapter 4 on KIPP culture described how KIPP teachers work to minimize disruptions resulting from student misbehavior. This culture, together with the commitment from students and parents to do their homework—and consequences for not completing it—provides teachers with more time to engage students in instruction without distractions. The key to student learning, however, is how that instructional time is spent. If student learning is to result from these opportunities, students need to be offered an appropriate and well-taught curriculum.

APPROACHES TO CURRICULUM AND INSTRUCTION

Decisions about curriculum and instruction are in the hands of each school leader. In the five Bay Area KIPP schools, that autonomy, in turn, is delegated to teachers who are expected to teach to the state standards but make their own choices about teaching approaches, curriculum, and materials. Each school offers an instructional program with the clear goal of preparing students for a college preparatory curriculum in high school, including prealgebra in seventh grade and algebra 1 in eighth grade, with one exception: one school teaches algebra 1 in seventh grade, and students take geometry in eighth grade.

Teachers' conceptions of effective instruction differ.

Across the schools, virtually all (96 percent) of the teachers confirmed that instructional choices are up to them. Their individual choices result in differences in teaching style, choice of textbook, and degree of reliance on textbooks, with as much variation within a school as among schools. For example, 81 percent of teachers overall reported that teachers in their school differ in their conceptions of effective instructional practices. In three of the five schools, roughly 90 percent of teachers reported such differences, whereas in another school just over half did. Nonetheless, most teachers and school leaders characterized their approach to instruction as "structured" but not "rigid." One school leader described the degree of variation in her school:

> You're not going to go into somebody's classroom and see project-based learning going on because it's not what we do here. But you certainly might go into somebody's classroom and they are doing a project as a summation of something that the kids have learned. But I feel like when you go into classrooms at our school, they feel really different [from one another], and I'm really proud of that.

Still, commonalities exist within and across schools. In all five schools, fifth-grade teachers reported that they focus more on basic skills than do teachers of upper grades. Fifth grade is viewed as the "catch-up" year because most students who enter KIPP are one or more grade levels behind. Within schools, teachers note certain similarities in their approaches. For example, in describing the ELA department, one teacher noted:

> The way you teach has a lot to do with the type of person you are. But I feel like we all do the same things. We differentiate our instruction, we attempt to use activities that are going to drive our students, and we make sure that they apply the skills. We all have the same thing in mind.

Although teachers make their own instructional choices, some school leaders encourage particular practices. For example, one school leader encouraged teachers to have students work in cooperative groups. For at least one teacher, this was a struggle. She described her instructional approach as a balance of teaching specific procedures and providing opportunities for students to construct meaning. However, she had never had students work cooperatively which, she said, is "where the school wants to go."

Another school leader described moving teachers from a highly scripted curriculum to a more constructivist approach:

> It's a huge change... [The assistant principal] really pushed me to think differently about [Open Court] and the fact that forcing all the kids to read the same text didn't make reading exciting necessarily. My concern was, I've seen Readers' and Writers' Workshop [as] basically a bunch of kids reading different texts and you're talking about text, but that's not going to help second-grade

[level] readers become better readers. They need help with phonics, they need help with fluency, they need help with direct work on becoming a better reader. So, I feel like now we have a good marriage of both. And I do feel like the kids are more excited about reading now, for sure. But I also feel like it's not "by the book" Readers' and Writers' Workshop either. Particularly in fifth grade, it's really pretty directed still... And, our [SAT10] results are amazing this year…. So, it's working. Although I still think it has a lot more to do with teachers than curriculum.

Nearly all teachers (98 percent) reported that they feel either adequately or well prepared to use a variety of instructional methods, although the percent responding "well prepared" varied from 20 to 75 percent across the five schools (see Exhibit 5-2).

Exhibit 5-2
Teacher Reports on Their Instructional Preparedness
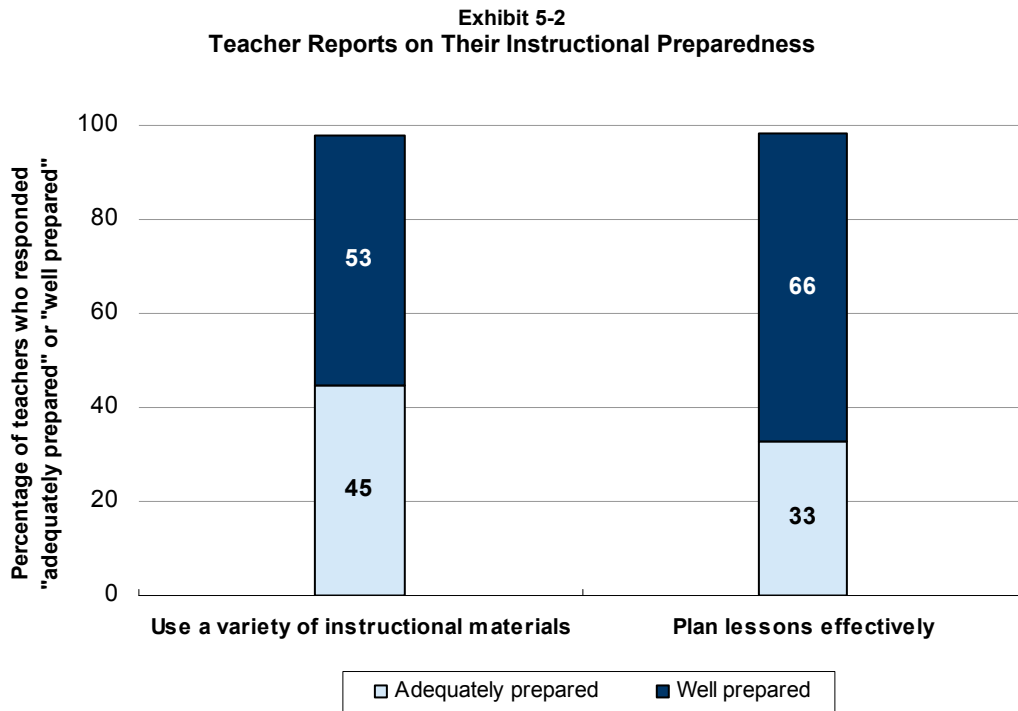
Teachers create their own lessons by drawing on varied sources.

Teachers reported that they create their own lessons most of the time and that they draw on many different sources (98 percent and 99 percent, respectively). Teachers also reported that they are at least adequately prepared to plan lessons effectively (99 percent; see Exhibit 5-2 above). Those reporting they are well prepared range from 50 to 92 percent across the schools.

In none of the schools did more than half the teachers report that they rely on a textbook. When asked about textbook use, the only text cited frequently by teachers across schools and grade levels was *History Alive* for social studies. In ELA, teachers reported using a variety of instructional programs, from Lucy Caulkins and Writers' Workshop to Holt and Houghton Mifflin, supplemented by other curriculum materials and books, such as *Write Source* and *Wordly Wise*. For mathematics instruction, textbooks ranged from *Saxon Math* to *Connected Math*. Fifth-grade teachers also described drawing on a notebook of lessons compiled by the KIPP founders as they develop their mathematics curricula. Seventh- and eighth-grade teachers expressed concern that students need more experience in learning to use textbooks because high school teachers expect students to read and follow the textbook; as a result, seventh- and eighth-grade teachers are more likely than fifth- and sixth-grade teachers to use textbooks.

With limited reliance on textbooks and only one teacher responsible for a given grade/subject combination, teachers reported spending considerable time on lesson preparation. School averages range from 10 to 12 hours per week for lesson preparation. Those teachers with a couple of years of experience have amassed lessons and materials to draw on, whereas newer teachers need to create new lessons. Some of the more experienced teachers said that they can do most of their planning during school time and over 2 to 3 hours on the weekend. Still, even for the relative veterans, lesson planning can be time-consuming. As one teacher said:

> Because this is my third year, I have a bank of lessons. But, I can never reuse [them] twice. I am always changing [them] to make them better... I make up every single thing that the kids get. So it is all done by hand. Nothing out of a book. I use them [the books] as references.

The balance between continuous improvement and unnecessary reinvention is interpreted differently by different teachers. A few teachers expressed concern about the constant invention and revision of lessons; for example, one teacher said: "There's a lot of working really hard, but I don't know how smart everybody is working now." In any case, the time teachers dedicate to instructional planning may contribute to their sense of overwhelming work demands (see Chapter 3).

With teachers making individual choices about curriculum and instruction, coordination among teachers becomes a challenge. Across the schools, from one-third to two-thirds of the teachers reported making a conscious effort to coordinate their course content with that of other teachers. It is important to keep in mind that the five KIPP schools are small; typically, one teacher is responsible for a given grade and subject (e.g., fifth-grade reading). Hence, issues of coordination cut across grade levels and subjects. In describing planning across grade levels, a task not undertaken by all the schools, one school leader said:

> We do a lot of joint curriculum planning in the summer so that teachers are really aware of what their grade levels are doing and how they are vertically aligned. One of the things we are really starting to do this year is create a vertical curriculum for all grade levels. We've created goals and benchmarks for each grade level that everyone's aware of and everyone's responsible for.

Teachers use the state standards and assessments to plan their curriculum.

Although teachers vary in their choices of instructional approaches and curriculum, their approaches to planning converge, guided by California's standards and assessments. School leaders encourage teachers to base their planning on student assessment data and, in most of the schools, teachers spoke of some form of outcome-based planning or mapping backwards from desired results.

In the absence of a set curriculum, this kind of explicit planning becomes the common thread across classrooms. When school leaders indicate their expectation that teachers will plan carefully and when they provide time and supports for teachers to carry out that planning, teachers engage in a lengthy and thoughtful instructional planning process (see Chapter 3 for a discussion of instructional leadership). As one teacher described:

> We start out with a year-long plan, really trying to work with outcome-based lesson planning: what do we want them to accomplish by a certain time and how? We're really following the state standards and what the students are supposed to know at each grade level.

The standards and state test take center stage in teachers' planning. According to one teacher, "Everything starts from the California standards. I am largely free to make my own curriculum. We start in the summer with sessions of studying the standards and seeing what they are and studying the blueprints of the test, the CST." A fifth grade teacher elaborated the process after noting the impossibility of beginning with fifth-grade standards, given the weak skills of the incoming students. After spending the first 3 months helping them catch up, she explained:

> Then I planned out each major standard. I broke the standards into units. Then I tried to figure how many days it would take to teach each unit, and I've tried to find a way to make that all fit between

December and the end of April before they take the CST. I literally count every single thing I need to teach, and I map it across the calendar for the year. So every day is pretty much accounted for.

More than 4 in 5 teachers (81 percent) report that preparing students for the CST is central to their planning, with a range across the five schools from two-thirds to all teachers. School leaders also report emphasis on the state test. One school leader explained that teachers give weekly tests that are standards-based, trimester exams, and practice exams twice a year. In addition, each class has a culminating project.

Teachers vary in regard to the extent to which they focus explicitly on preparation for the CST; and they vary in how they prepare their students for the test. For example, one teacher said:

I decided to make a test prep binder for each student to keep in the classroom. We're going to take those release items and dissect them and really practice strategies. I don't want to teach just to the test, but I don't think I'll fall into that trap because we don't have textbooks.

Another teacher said:

If you don't have any testing strategies, if you don't know how to take a test, then you're not going to do well. So I'm spending time on it this year. It's guiding a lot of my teaching, so I teach a skill, I do the test prep on it, and then we read fiction and we apply the skill to our reading.

Our interviews with teachers and school leaders also suggest differences in emphasis on, and support for, detailed instructional planning across schools. In one school, two teachers led their peers in an intensive summer session on unit and lesson planning. Here the school leader noted with pride that teachers are not doing the same thing, but emphasized that they develop lessons around the same design principles:

Every teacher teaches a concept, the students get to have practice, they practice together, they practice alone, and the teacher does some kind of assessment. So, every lesson is designed like that, but the way they look can be pretty different.

In another school, the assistant principal described the level at which the school leadership structures lesson planning:

We have a lesson plan template that we offer teachers if they want to use it, but we don't require them to use our template. Whatever lesson planning template you choose to use, there are certain elements you need to have. Daily you need to have an aim that is measured, some motivation or hook for your kids, there should be guided practice every day, there should be independent practice every day, and there should be an assessment of the aim every day. It doesn't have to be a formal test, but some check-in. Those elements need to be in every lesson every day.

Overall, two of the five schools provide training specifically about instructional planning for the whole faculty. School leaders reinforce this approach throughout the year. In two others, school leaders emphasize the importance of detailed planning but do not provide the same degree of training and reinforcement. In one school, teachers reported little guidance from the school leader on matters of instruction. As one teacher put it: "I wish we would have had more of a chance to really talk about curriculum… I could be anyone coming up with anything."

Most teachers rely on frequent assessments to track student progress and adjust instruction.

KIPP schools share an emphasis on frequent assessment and use of data for modifying instruction. Across the schools, 90 percent of teachers report that they use a variety of assessment strategies to assess their students, and virtually all report that they review these data to adjust their instruction. All teachers consider themselves at least adequately prepared to assess student learning. Teachers considering themselves well prepared range from 17 to 58 percent across the schools.

Teachers use a variety of strategies to assess daily learning. For example, one teacher said: "What I've been doing lately is having an exit slip. We've been talking about the value of the reflection. The exit slip is my informal assessment: did they grasp that lesson that day?" Another teacher described several

strategies, including using "index cards with two focused questions to see whether students got it or not"; looking through a collection of class work; and reviewing the students' reading notebooks, which they write at home independently. She also grades their class notes every other week.

Most teachers give unit tests as well as trimester tests. Several teachers at one school described using standardized questions from EduSoft®, which links the questions to standards. One teacher described the process of tracking mastery, reviewing the results with colleagues, and planning a response:

> We track their mastery. You teach, let's say, five standards this trimester with this unit, which means sixteen discrete skills. We have these sheets where we track mastery.... [I]t's important to chart who you need to target more. At the end of the unit and especially at the end of trimester,… it's usually organized in a staff meeting, in a department meeting, where all of us bring the data and sit with it and follow certain guidelines. It's ultimately me looking at my problem areas, what I do is I readjust my long-term plan and see [that] what I didn't touch right the first time around I need to touch now. If there's a red flag for one student, I need to touch that student. We work together on ironing out the kinks on what we do with these things, but ultimately every person is seeing his or her results and acting upon them in their own long-term plan.

The practice of reviewing assessment results together is not uncommon. At four schools, large majorities of teachers (72 to 92 percent) reported discussing student assessment data with other teachers at least once or twice a month to make decisions about instruction; at one school, less than half of the faculty reported discussing student assessment data with their colleagues with the same frequency.

In addition to using data to adjust their instruction, teachers track students' progress to determine who needs extra help. Although structures for providing extra help vary from school to school, all of the schools set aside time for tutoring students who are behind in a subject, both during the school day and after school. Responsibilities for tutoring are typically shared across the teaching staff. In some cases, every teacher teaches a small group who need extra assistance during the school day. For example, one school has reading intervention groups. All fifth-grade students are assessed and placed in small groups that have the same decoding problems. In other cases, one teacher might identify a student needing extra support in a particular area, and another teacher finds time to work with the student while the rest of the class is doing independent practice. Teachers also work with students after school. In one school, students who are getting Ds and Fs remain after school 2 days a week for tutoring or homework help.

A majority of students report that their mathematics and ELA classes are usually challenging, keep them busy, and require hard work to do well.

We asked students whether their mathematics and ELA classes are challenging and require them to think and work hard. Exhibit 5-3 and 5-4 present the survey results. On a scale of 1 = "never" to 5 = "always," at least half the students reported these conditions occurred often or always in each class, with two exceptions. In one school, slightly less than half of the students described mathematics and ELA lessons as challenging often or always. The other exception was a greater departure from the other four schools: only one-third of the students in one school reported that their mathematics and ELA classes stay busy and do not waste time. Overall, the patterns are similar for mathematics and ELA, with somewhat lower responses for ELA than for mathematics. Responses were highest and most consistent across schools with regard to, "I have to work hard to do well," perhaps in part reflecting KIPP's motto "Work Hard, Be Nice."

Exhibit 5-3
Student Reports on Their Mathematics Classes
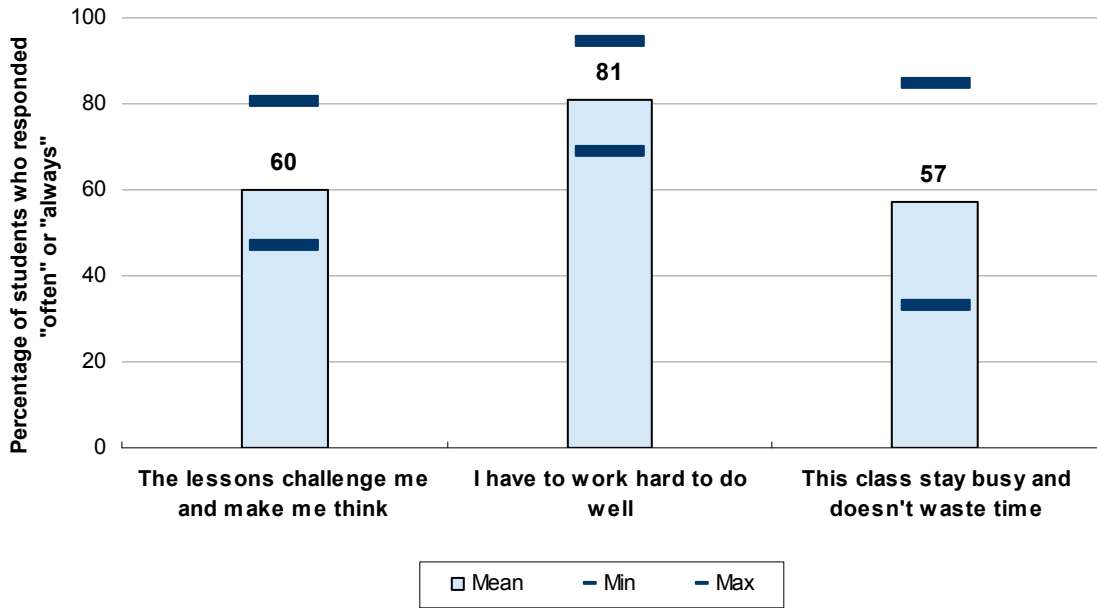
Exhibit 5-4
Student Reports on Their ELA Classes
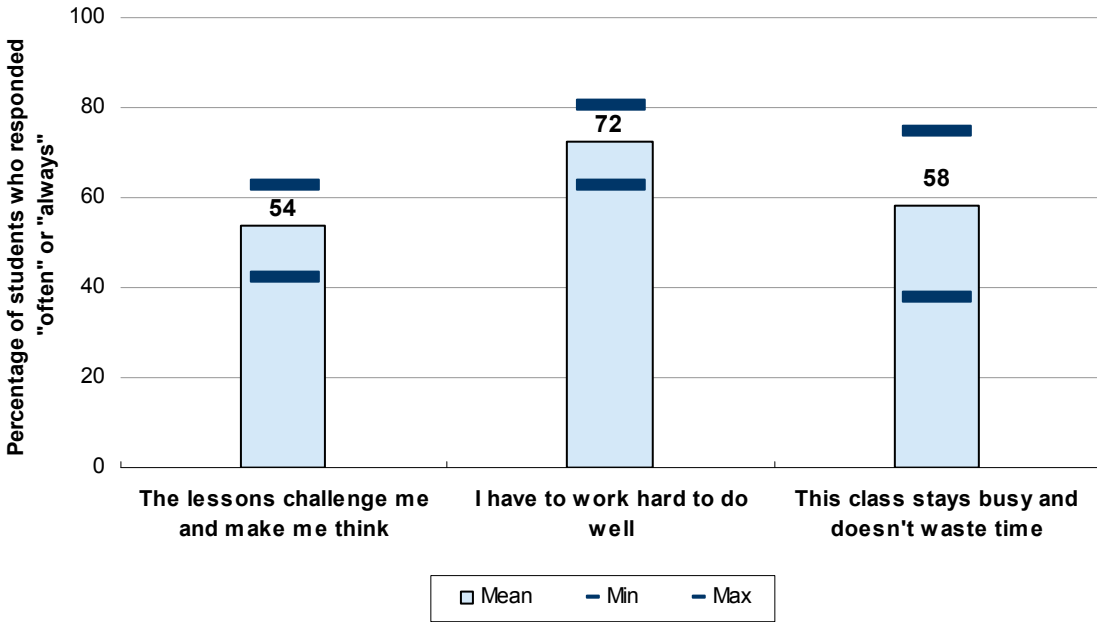
TEACHER LEARNING AND ACCOUNTABILITY

KIPP's emphasis on results attracts school leaders and teachers who believe they can positively affect student learning and who are willing to work to create a culture of continuous improvement. School leaders encourage continuous improvement in curriculum and instruction through a variety of mechanisms including formal and informal observations by the school leaders themselves and their designees and by other teachers, access to formal professional development, and time for teachers to work together. Chapter 3 presents findings from the school leaders' perspective and discusses variation in instructional leadership across schools. Here, we examine how teachers improve their practice and what motivates them to do so.

Teachers value a range of formal professional development opportunities.

Across the KIPP schools, teachers report that they have ample opportunities to attend conferences and trainings. In most cases, any teacher's request is granted. However, as is true in most schools, teachers' requests are limited by their reluctance to leave their classrooms, coupled with the difficulty of preparing plans for and finding adequate substitute teachers. In general, KIPP teachers are reluctant to bring in substitutes because they are not familiar with the behavior system.

Most KIPP teachers attend the annual KIPP School Summit, which takes place over 4 days in the summer. Although reactions varied by school, a majority of teachers (61 percent) rated it as a valuable or extremely valuable experience, particularly for knowledge sharing among KIPP teachers (see Exhibit 5-5). As one teacher described it:

> I went to the Summit, of course. It was awesome. I learned so much that I can put into practice right away... The information sharing is great. Ninety percent of the workshops were helpful, well presented, and well organized.

Another teacher described the value of seeing a panel of teachers from prestigious high schools who talked about how KIPP students are faring at their schools and provided examples of the kind of writing they expect from their students.

Exhibit 5-5
Teacher Reports on the Value of KIPP Professional Development
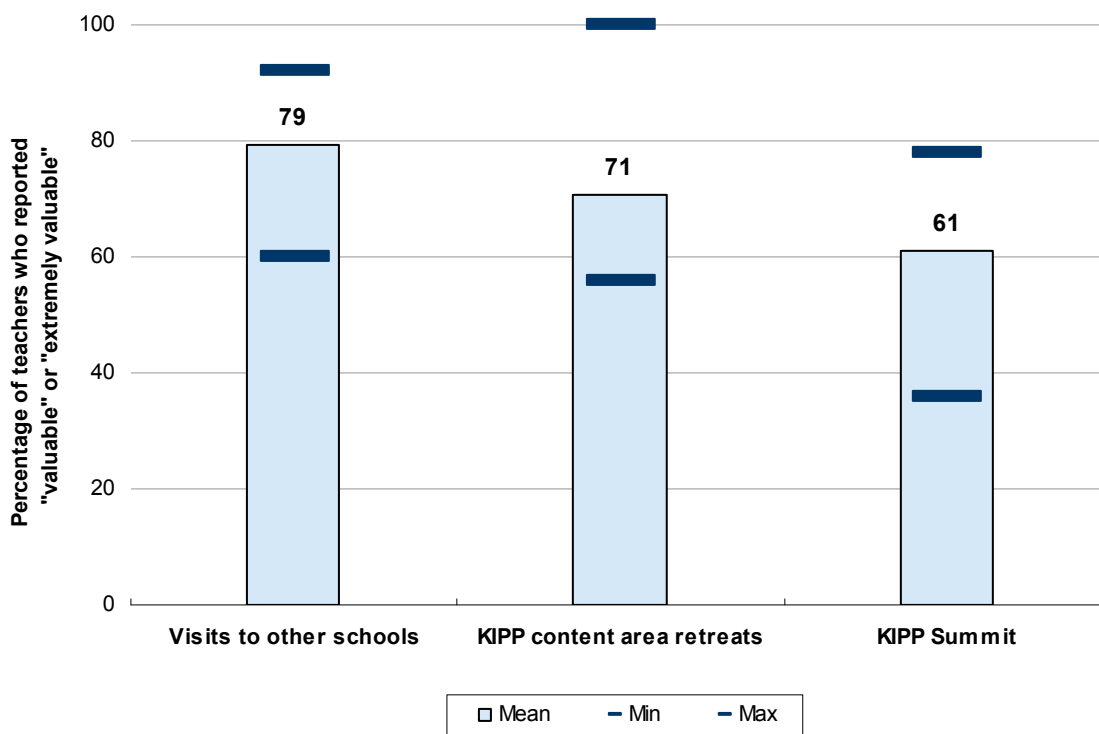
Teachers were even more enthusiastic about the annual KIPP content area retreats, also called conferences, where they meet with teachers from other KIPP schools nationwide who teach in the same content area. They spoke of feeling "revived" and "rejuvenated." One teacher said:

> There were 50 KIPP science teachers there. I spent the whole time talking with other KIPP science teachers, and exchanging ideas, exchanging units, getting re-excited about what I was doing. The workshops were good. Some of the workshops were great. Plus, I got to see another KIPP school in action, which was the first time I had done that.

A few of the more seasoned teachers felt that the content area retreats were targeted to new teachers but still found the informal networking to be important.

Teacher ratings of visits to other schools were even higher than their ratings of the KIPP School Summit and content area retreats. One school has a "sister" relationship with a KIPP school on the East Coast, which most of the faculty visited. Teachers described the visit as "powerful" and "awesome," especially in terms of developing their staff culture.

The KIPP Foundation encourages networking among KIPP schools through visits and on-line exchanges. In fact, allowing for, and learning from, local variation and adaptation is one way in which KIPP hopes the schools will benefit from being part of a network. As a leader at the Foundation explained, "Some of the best training we can do is getting folks talking and coordinating… unleashing and unlocking the network effect." He went on to note that this networking is not always easy, but he hopes the regional clusters will facilitate more sharing of best practices.

Teachers vary in their interest in attending staff development sessions apart from those connected to KIPP. A few mentioned statewide subject-matter association meetings (e.g., California Teachers of Mathematics), but most expressed reluctance to sacrifice additional time for training.

Teachers have access to and value a variety of school-based learning opportunities and supports, including observations, mentoring, and conversations with peers.

During this 3-year study, most of the KIPP schools expanded from serving a single grade to their full complement of four grades. This growth involved transition from a handful of founding teachers and the school leader all working together to a larger staff that necessitated more formal structures and roles to support teachers in their work. In our earlier report, we noted an absence of such structures and wide variation in the school leaders' focus on instruction, given their immediate preoccupation with opening and establishing their schools. As the schools have matured, school leaders have created new roles and structures to support teachers.

Chapter 3 describes this shift, including the creation of administrative positions designated as instructional leaders (e.g., dean of instruction); scheduled meeting times for groups of teachers, usually by grade level or subject area; and formal peer observation systems. Exhibit 5-6 indicates the percent of teachers who rated each of five school-based learning opportunities as valuable or extremely valuable on a four-point scale. The highest ratings and least variation among the schools occurred for "informal conversations with teachers" and for "mentoring or coaching." However, only two-thirds of the teachers rated the mentoring and coaching category; one-third of teachers indicated that they did not receive these supports.

Exhibit 5-6
Teacher Reports on the Value of School-Based Professional Development

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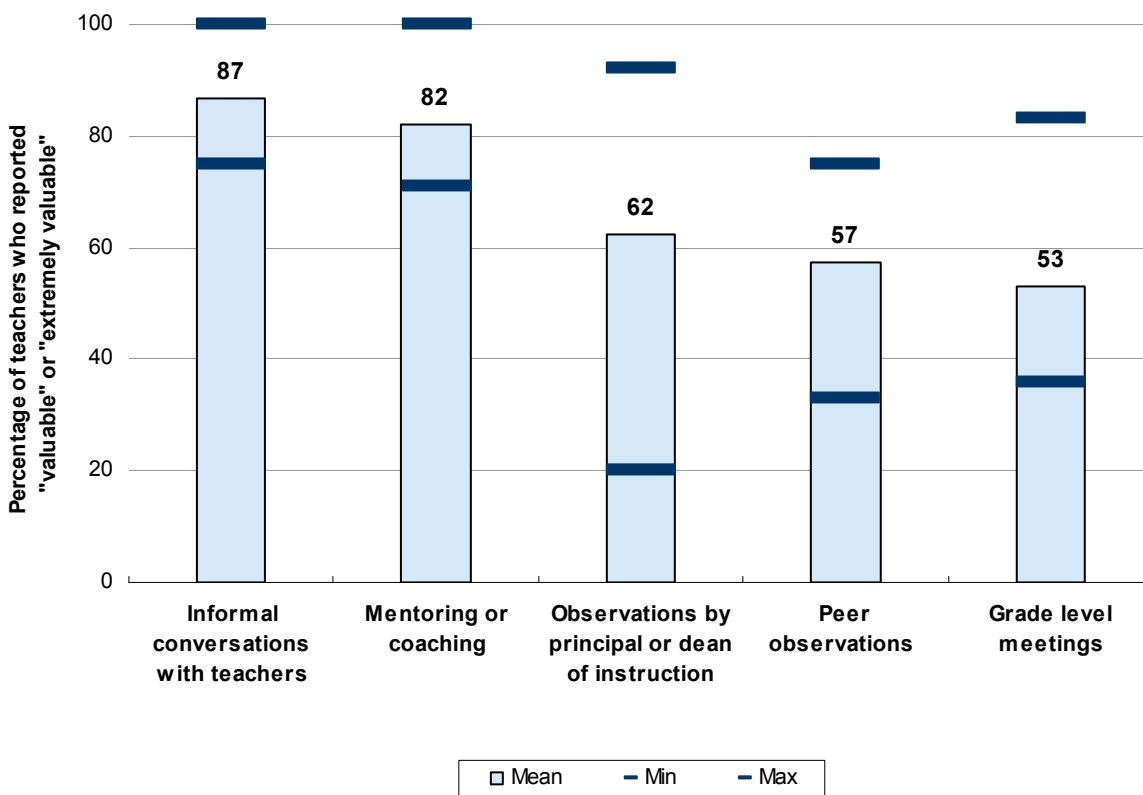
Almost two-thirds of teachers reported that they value observations by the principal or dean of instruction, but these results vary considerably across schools, ranging from 20 to 92 percent. More than half the teachers rated both peer observations and grade level meetings as valuable, with less variation across the five schools than for administrator observations. We also asked teachers how frequently they observe each other's classrooms to offer feedback or gather ideas. Slightly more than half the teachers reported that they do this at least once or twice a month. However, the range across the five schools was large: from 10 to 92 percent.

Together these data paint a picture of substantial variation across the schools. The rank order of schools on these ratings is similar across the activities; that is, the schools whose teachers reported the lowest ratings on one item tend to be the lowest on the others. Our interviews with teachers and school leaders suggest that some schools have created a culture in which both peer and administrator observations are common and welcomed by teachers, whereas other schools have not instituted such observations. For example, one school instituted a formal peer observation system requiring each teacher to observe another teacher and have a debriefing session once a month. A teacher described how important those observations are to her:

> I can tell there are times when the instruction isn't going well, and I would love to have another pair of eyes in the room to tell me where the breakdown was, so not only can I repair it but so it won't happen again. So [being observed] helps a lot."

The schools reflect a model of professional accountability.

Although not all five schools have created a strong culture of teacher learning, most teachers are motivated to improve. Most are idealistic young teachers who have self-selected into these challenging circumstances and have a stake in the success of their students. For some teachers, this context translates into increased internal pressure to do well by their students. As one teacher said, "When you come here suddenly everyone else is a good teacher. It makes you step it up quite a bit. I changed almost everything when I started here." Another said:

> The high expectations are for the students but they are even higher for us. We have to set the high expectations for ourselves. You will be challenged to kick it up another notch. It's exhausting in every way but it's superrewarding.

As part of a culture of improvement, teachers are accustomed to having other staff members in and out of their classrooms. One teacher explained how the expectation of open classrooms is established:

> When we say no excuses for the students, we mean that for the teachers, too… I think it goes back to who they hire. They hire people with the clear, clear understanding that our classrooms are open, in a positive way, and that we'll need to be open to constructive criticism, the end goal being students' success.

A teacher at another school noted that maintaining open classrooms upholds the notion that "we are all accountable" and, knowing that you can be observed at any time "ups the stakes." Although these attitudes are not universal among teachers, they are widely shared and reflect teachers' internal motivation to help their students be successful.

SUMMARY

KIPP is distinctive for its long school days, coupled with a culture that maximizes learning opportunities for students. These KIPP schools provide roughly 60 percent more instructional time than regular public middle schools, and the vast majority of that time is dedicated to learning activities. To the extent that behavior problems are under control, that students have done their homework, and that teachers have planned their instruction well, the instructional time is used efficiently. Although these conditions vary across schools and classrooms, they are the norm, not the exception.

Also distinctive academically is the combination of teacher discretion over curriculum and instruction, coupled with their focus on detailed planning, working backwards from the state standards and assessments. Teachers, with guidance and suggestions from school administrators, create their own curriculum and lessons. They also use data from frequent assessments to track student progress and adjust instruction. The use of data is a high priority in all schools, but is more systematized and supported in some than in others.

Teachers work hard, both because of the long hours and because they are motivated to do a good job, having chosen to work with the target population of students and the KIPP approach. Their efforts to improve their practice are supported by opportunities to learn outside and inside the school. School leaders differ in their emphasis on setting high expectations for teachers and establishing formal systems for improvement, including regular observation, peer observations, formative assessment systems, and structures to discuss student data.

LESSONS FROM
THE BAY AREA KIPP SCHOOLS

Bay Area KIPP schools are an exception to the rule. Systematic approaches designed to raise the achievement levels of schools with predominantly poor and minority students typically require years to implement fully, and few show significant effects on achievement. Although the five Bay Area KIPP schools vary in their student demographics and how they implement the KIPP approach, each has been able to create a readily recognizable culture quickly and post strong achievement gains, most notably in the fifth and sixth grades. They do so with the advantage of self-selected school leaders, teachers, and students who work long hours to achieve results.

IMPACT OF THE BAY AREA KIPP SCHOOLS ON STUDENT ACHIEVEMENT

Students at the five Bay Area KIPP schools make above-average progress in most grades and cohorts compared with national norms. Four of the five schools outperform their district's average in the percentage of students who reach proficiency on the California Standards Test (CST). Because students choose to attend KIPP, this could simply mean that higher scoring students chose KIPP. However, using statistical models developed to predict enrollment at the three schools for which we could conduct more detailed analyses, we found the opposite to be true: For each of these three schools, students with lower test scores were more likely to choose KIPP than higher performing students from the same neighborhood, even after adjusting for demographic characteristics.

For the same three schools, we were able to use propensity score matching to construct comparison groups. We found that KIPP has a statistically significant impact on the achievement of fifth-graders and incoming sixth-graders. Moreover, the size of the effects is substantial, particularly in comparison with other programs and schools targeted to the same goal of increasing poor and minority student performance.[58]

For all the analyses, variation in test scores is a key finding—one that applies across grades, cohorts, subjects, and schools. The pattern of greater gains in the fifth grade appears to hold in most cases. Although students do not continue to gain at the same rate as they progress through the higher grades, it is plausible that the big boost they receive in their first year at KIPP puts them on track to continue progressing at grade level—a significant accomplishment for many students who begin KIPP far below grade level.

We could not estimate longitudinal impacts because of student attrition and in-grade retention. Because of both the number of students who left and the fact that those who left are systematically different from those who stayed, longitudinal comparisons would be biased.

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[58] See, for example, Bifulco & Ladd, 2007; Gill et al., 2005; Hanushek et al., 2005; and Hoxby & Murarka, 2007.

HOW BAY AREA KIPP SCHOOLS INFLUENCE STUDENT ACHIEVEMENT

Each KIPP school is designed around KIPP's Five Pillars: High Expectations, Choice and Commitment, Power to Lead, More Time, and Focus on Results. The Bay Area KIPP schools reflect the elements of the theory of action implicit in these pillars. KIPP school leaders have considerable autonomy and as a result considerable influence over the development of every aspect of their schools. Because broad responsibilities demand a correspondingly broad range of skills, the KIPP Foundation has designed a rigorous selection process and training institute for school leaders. New to the role, leaders' skills and knowledge affect how well each component of the KIPP approach is implemented, especially their abilities to select teachers and manage staff.

Although we cannot demonstrate a causal link between specific school features and student outcomes, through observations, interviews, and surveys, we identified features of the Bay Area KIPP schools that are likely to contribute to student achievement. These features, which closely match KIPP's pillars, include KIPP's emphasis on developing a school culture of high expectations for student academic performance and behavior and devoting more time to learning than traditional schools, coupled with supports for students who struggle. To varied degrees, Bay Area KIPP teachers focus on tracking student progress and careful instructional planning, working backwards from state standards and assessments. Teachers, school leaders, and the KIPP Foundation espouse a philosophy of continuous improvement, which is evident in many of their actions. School leaders, operating with considerable autonomy in how they build and manage their schools, revisit and revise strategies for implementing KIPP's principles, although some do so more frequently than others. Together, these features result in school conditions that can support students as learners and teachers as professionals.

A culture of high expectations for student academic performance and behavior

KIPP has an explicit mission and set of expectations for school culture, elaborated in a variety of materials and training provided to school leaders. The Bay Area KIPP schools were able to implement this "curriculum" well enough to be visible even in their first year of operation. Focused on high expectations for student academic performance and behavior and with a strong emphasis on character building, this KIPP culture defines the environment in which teaching and learning occur.

Rapid implementation is possible because the schools start from scratch under the leadership of carefully selected school leaders trained in KIPP's approach who hire staff committed to KIPP's mission. Hiring teachers involves screening dozens of candidates, interviewing them, and observing their teaching.

In the summer before school starts, new staff and students are introduced to KIPP's essentials, including special slogans and routines that are symbolic of KIPP's values and mission. These symbols are ubiquitous, posted visually throughout each school and embedded in activities during the day. Students are reminded daily that they are preparing for college and expected to work hard, to be nice to one another, to value teamwork, and to remember that there are immediate and public consequences for failure to abide by the rules.

Each of the five Bay Area KIPP schools implements these ideas in different ways and with varied degrees of consistency and efficacy, largely reflecting the style, skills, and dispositions of the school leader and staff stability. All schools strive for consistency in language and responses to student behavior, which requires practice and vigilance on the staff's part. Some schools struggle more than others in achieving a balance between tough love and nurturing.

Extensive time and support for student learning

The combination of an extended school day, Saturday school, and summer school provides students with roughly 60 percent more instructional time than traditional public middle schools offer. In addition, Bay Area KIPP students have a range of after-school options and telephone access to teachers in the evenings

for homework help. Moreover, all five schools provide some form of intervention for students who are struggling, including individual tutoring during study hall and after school. All five schools concentrate on bringing fifth-graders up to grade level, given that most begin 1 or more years behind. Those who do not catch up usually repeat fifth grade.

Whether additional time is beneficial depends on how it is used. Two conditions are necessary for effective use of this time, and the Bay Area KIPP schools to varying degrees provide both: One is the opportunity for teaching and learning created when students come to school prepared and do not disrupt the class—a result of the instilled school culture. The other is the teachers' knowledge of each student and the well-prepared lessons that come from their ongoing formative assessments of students and their careful planning.

A focus on tracking student progress and careful instructional planning

KIPP leaves curriculum and instruction entirely up to each school leader. The school leaders in the Bay Area KIPP schools in turn delegate choices to teachers. We found that teachers, individually and collectively, create their curriculum for the year by working backwards from state standards and assessments, with variation in and across schools. In the schools with the strongest instructional supports for teachers, including extensive training for all teachers on instructional planning, teachers develop detailed plans, down to the level of each lesson, for the year. In these schools, teachers systematically collect and use formative assessment data as a basis for differentiating instruction and providing additional interventions for some students. Teachers also confer frequently with one another to coordinate curriculum across grades and discuss individual students.

The flexibility given teachers to create their own curriculum and instruction, coupled with the expectation for results, creates a sense of professionalism that attracts teachers to the job. In fact, it attracts a high proportion of teachers from highly selective colleges. A professional culture is facilitated by the small faculty size and the shared mission and reflected in collaborative work around school culture as well as the academic program. Professional collaboration and even competition, which vary from school to school largely depending on the school leader and the teachers that the leader attracts, inspire teachers to invest in careful planning and continuous improvement.

A philosophy of continuous improvement

Although it exerts no operational authority over the schools, the KIPP Foundation models a philosophy of continuous improvement and expects the same from KIPP schools. Through feedback from regional and school leaders, KIPP adjusts and targets the support it provides. The KIPP Foundation also uses formal school reviews to learn about the schools. Begun initially as external validation, the reviews by an outside team now serve to meet the needs and advance the goals of each school leader as well as the KIPP Foundation. KIPP also encourages the sharing of practices across schools in the network by sponsoring the annual KIPP School Summit and content area retreats and by linking school and regional leaders to each other.

Committed to show results, the leaders and teachers of the Bay Area KIPP schools also seek ways to improve—from adjusting their behavior system and classroom instruction to modifying interventions for students. School leaders set the tone for continuous improvement through their actions and the systems they put in place. To varying degrees, Bay Area KIPP school leaders establish their own feedback mechanisms to foster instructional improvement through administrator and peer observations and regular student assessments. They also encourage and support opportunities for teachers to learn through school-based and external professional development. In the schools with the most developed systems, the Bay Area KIPP school leaders have created a culture of improvement that enhances teachers' sense of professionalism and professional accountability. In most classrooms, teachers strive for continuous improvement, relying on formative assessment as a basis for adjusting and differentiating instruction.

IMPLICATIONS FOR OTHER SCHOOLS AND SCHOOL DISTRICTS

These findings, based on the early experiences of the Bay Area KIPP schools, offer useful lessons for other schools and school districts to consider. These schools are successful with many students whose demographics and prior achievement suggest they are at high risk for failure. Although the Bay Area KIPP schools demonstrate positive impacts, they do not provide, nor do they claim to provide, solutions to many of the challenges facing urban schools, including student mobility and teacher turnover. Unlike most urban schools, KIPP schools comprise students, teachers, and school leaders who have chosen to affiliate with KIPP. Still, their experiences point to important themes worthy of serious consideration and further study. We highlight three of these themes: the use of guiding principles as opposed to a prescribed program, the role of voluntary association, and the approach of managing through staff selection and training.

Guidance through a system of principles, not a specific program or curriculum

KIPP is defined by a set of guiding principles—the five KIPP pillars—not by a specific program or curriculum. These principles embody a set of beliefs, or theory of action, about the elements essential for academic and behavioral success for students from poor communities. KIPP offers an approach that targets results and provides resources, but does not dictate implementation.

KIPP's principles operate in tandem; weaknesses in one undermine the others. The theory is that if students, teachers, and school leaders choose to be part of KIPP, *and* if leaders have considerable autonomy, *and* if leaders and teachers hold high expectations for achievement and behavior, provide more time, and focus on results, then students vulnerable to failure are much more likely to succeed. These principles overlap with long-standing findings from studies of effective schools, including their culture of high expectations, extra time and supports for students, careful instructional planning, and underlying these strong leadership.[59] And the principles virtually replicate the findings from an in-depth study of Catholic schools: strong leadership; local control; a coherent program of activity; an orderly, disciplined environment; and voluntary association.[60]

In the Bay Area KIPP schools, the interdependence of the elements is evident: The extra time matters because it can be used well when students come to school having completed their homework and behave themselves. Students complete their homework and behave because they and their families have committed to follow the rules and because staff work hard to consistently enforce the rules. Staff work hard to enforce the rules and design their curriculum because they believe in KIPP's mission. Strength in each of these elements enhances the other while the absence of any one threatens the whole.

Thus, adopting one KIPP feature, such as simply extending the school day is unlikely to produce the same results as KIPP's longer school day without concomitant changes in culture and instructional planning. Similarly, treating fifth grade as a catch-up year and retaining students who do not catch up is likely, by itself, to do more harm than good outside the KIPP context, according a large body of research on retention.[61] The challenge facing high-poverty districts and schools is how to implement these elements in concert with each other, and specifically how to engender student, parent, and faculty commitment in the absence of choice.

The role of voluntary association in creating shared beliefs and commitment

Students and their parents are not the only ones who choose KIPP schools. School leaders and teachers also choose to be part of KIPP, and they do so because its approach and philosophy are consonant with

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[59] David & Shields, 1991.
[60] Bryk, Lee, & Holland, 1993.
[61] See, for example, Jimerson, 2001; Roderick & Nagaoka, 2005.

their beliefs. It is no accident that the KIPP founders included Choice and Commitment as one of their five pillars. Student and faculty choice appears fundamental to the Bay Area KIPP schools' success in rapidly creating a strong culture that supports teaching and learning.

Teachers in particular sign on for long days and embrace KIPP's general approach to rewards and consequences for behavior. Even with teacher choice and tremendous effort, achieving consistency is a struggle. The variation across the five KIPP schools suggests that achieving a consistent approach to behavior is unlikely in schools where teachers and leaders have not opted in to the new approach. When teachers choose to be part of it, achieving consistency is still a struggle but a goal to which they subscribe.

Creating a system in which principals and teachers can choose schools that match their philosophical leanings poses an enormous challenge for districts. Moreover, even for KIPP schools whether the pool of potential school leaders and teachers is large enough to support continued turnover and expansion is an open question,particularly given the demands of their jobs.

Managing through selection and training, not compliance monitoring

The autonomy granted KIPP leaders and teachers occurs within a context defined by careful selection of personnel and intensive training in KIPP's principles. Rather than specifying programs and practices, KIPP hires school leaders who appear to be a good match with its approach and teaches them both the theory behind the principles and what they can look like in practice. As a consequence, many traditional district management functions are unnecessary. KIPP has no set of rules that invites compliance monitoring. Nor does it prescribe practices or programs and concern itself with tracking fidelity of implementation.

Ultimate accountability for results is also part of this equation, one that school leaders sign on when they take the job. But it is not the external accountability that drives day-to-day operations; it is internal or professional accountability. The Bay Area KIPP schools reflect KIPP's motto of "no shortcuts" and "hard work." Lower than intended test scores lead to a closer inspection of problems and discussion of individual students' needs rather than a search for a new program that promises a quick fix.

In addition to their role in hiring and training school leaders, the KIPP Foundation provides a range of supports to its network of schools. It does so in two key ways. One is by encouraging networking among the schools through both formal gatherings and informal communication. The other is by maintaining feedback loops, both formal and informal, that keep the Foundation informed about both individual and collective issues that may require additional training, support, or problem solving. Described above in terms of continuous improvement, districts would benefit from developing similar ways of obtaining feedback and targeting assistance as needed.

Recently, the KIPP Foundation determined that regional structures are a more effective and efficient way of obtaining feedback and providing supports to KIPP schools than centralized feedback and support. Geographic subunits in large urban districts could play an analogous role if they focused on feedback, training, and support rather than compliance monitoring.

QUESTIONS WORTH PURSUING

Much is still to be learned from studying KIPP. This study was limited to the five KIPP schools in the San Francisco Bay Area during their start-up years. Our most rigorous analysis of achievement effects was based on an even smaller sample of three schools. Still, the findings are provocative and suggest additional areas for further inquiry. We identify five questions that could shed further light on the operation and impact of KIPP schools and their implications for other schools and districts.

How typical are the Bay Area KIPP schools?

We do not know whether the five Bay Area KIPP schools are representative of the KIPP network, in terms of either how they operate or their impacts on achievement. We observed considerable variation across the five schools, but whether this represents the range of variation across the entire KIPP network has yet to be determined.

Similarly, we do not have rigorous estimates of the impact of KIPP beyond fifth and sixth grades in the three schools for which we had district data, and the sixth grade estimates are only for students new to KIPP in that grade level. The KIPP Foundation recently commissioned a 5-year study to estimate KIPP's impact on achievement across the KIPP network that can fill this gap. To the extent that the effect sizes hold up, even if limited to the early grades, learning more about the academic program that contributes to these gains would be valuable.

What are the causes and implications of student attrition?

Our finding of large and differential attrition requires further investigation to determine its causes. One possibility is that attrition rates may be higher during the schools' start-up phase and decline over time as the schools become more established. Another is that the Bay Area schools may be outliers compared with the entire KIPP network. In the schools we studied, the majority of students who leave either move away or find KIPP to be a "poor fit." High mobility is often a hallmark of high-poverty neighborhoods. However, understanding more about why KIPP students leave, especially from the perspective of students and their parents, would be valuable. Also valuable would be tracking students who leave KIPP schools after 1 or 2 years to observe whether their KIPP experiences have residual effects. We speculate that fifth-graders may get a big boost from their KIPP schooling—one that may establish a trajectory for subsequent academic growth even if they leave KIPP.

Are KIPP schools sustainable?

Leading and teaching in a KIPP school are hard jobs, and turnover in the five Bay Area schools is high for teachers although not for school leaders. At the same time, those attracted to the job are by and large young, enthusiastic teachers, many of whom have graduated from highly selective colleges. Although limited in experience, they are passionate and well prepared academically. Do these factors mitigate their lack of experience? How much turnover can KIPP schools tolerate and still retain the essence of their cultures? Over time, will the pool of candidates for school leaders and teachers continue to meet the schools' needs? It is also possible that as the schools mature, they will stabilize in ways that reduce procedural and curricular demands on their staffs. Moreover, larger staffs might provide more flexibility and built-in planning time for teachers.

Also important for sustainability, at least in the California KIPP schools, is a continued influx of supplemental private funding for operating costs. The Bay Area KIPP schools could not function without substantial resources above and beyond the state per-pupil expenditures they receive. The five schools obtain from one-fifth to one-third of their operating budget through fundraising. That these resources are essential for operations is partly a function of California's low level of funding for public education. The supplemental funds place the Bay Area KIPP schools on par with KIPP schools operating in other high-cost states.

What structures and roles will KIPP regional entities take on as KIPP expands?

As the number of KIPP schools expands, the KIPP Foundation is limiting most of that expansion to geographic areas where a regional entity can carry out some of the tasks that would otherwise fall to each school. In the Bay Area, KIPP Bay Area Schools fulfills this role, with responsibility for several back office functions, including fundraising and bookkeeping, as well as initial steps in teacher recruitment and paper screening. Other regions have had such structures for several years. Which additional functions will

these regional entities assume over time? Will the supports they provide create the intended benefits and economies of scale for the schools they serve? In seeking implications for both KIPP expansion and other schools, understanding which functions these district-like structures assume will be particularly interesting, given that they build from the bottom up on the basis of perceived needs rather than from a priori assumptions.

Will KIPP be successful in its long-term goal of getting students into college?

KIPP's ultimate goal is to prepare its students to succeed in a college preparatory curriculum in high school and go on to college. Systematic documentation of patterns of high school attendance and eventual college attendance are thus important outcomes. Because college attendance begins 8 years after students enroll in fifth grade in KIPP, only students from the original two founders' schools have reached college age. Those two schools, begun in 1995, report that 80 percent of their graduates have enrolled in college. Because most KIPP schools began in 2003 or later, large waves of potential college attendees will begin completing their senior year in 2011.[62]

* * *

KIPP has attracted considerable attention, both positive and negative. This in itself suggests the value of learning more about its operations and impacts. Clearly, the Bay Area KIPP schools have achieved some measures of success on many fronts. Our findings indicate several areas that offer valuable lessons to other schools and to school districts. Although their experiences do not directly map onto those of other schools and districts, the Bay Area KIPP schools exemplify what they preach: High expectations and hard work pay off. There are no shortcuts.

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[62] Three began in 2001 and another six in 2002.

REFERENCES

Bifulco, R., & Ladd, H. (2006). The impacts of charter schools on student achievement: Evidence from North Carolina. *Education Finance and Policy 1*(1), 50-90.

Bifulco, R., & Ladd, H. (2007). School choice, racial segregation, and test-score gaps: Evidence from North Carolina's charter school program. *Journal of Policy Analysis and Management. 26*(1), 31-56.

Bryk, A. S., Holland, P. B., Lee, V. E. (1993). *Catholic schools and the common good.* Cambridge, MA: Harvard University Press.

California Department of Education. (2008a). *DataQuest. Create your own report: Socioeconomic indicators and Student data, 2003-04 to 2006-07*. Retrieved March 10, 2008, from http://dq.cde.ca.gov/dataquest/

California Department of Education. (2008b). *DataQuest. Enrollment data, 2006-07*. Retrieved March 10, 2008, from http://dq.cde.ca.gov/dataquest/

California Department of Education. (2008c). *DataQuest. Number of teachers by ethnicity, 2006-07*. Retrieved March 10, 2008, from http://dq.cde.ca.gov/dataquest/

California Department of Education. (2008d). *DataQuest. California Standardized Testing and Reporting (STAR), 2003-04 to 2006-07*. Retrieved March 10, 2008, from http://dq.cde.ca.gov/dataquest/

California Department of Education. (2008e). *DataQuest. Accountability progress reporting (APR), 2003-04 to 2006-07*. Retrieved March 10, 2008, from http://dq.cde.ca.gov/dataquest/

Center for Research on the Context of Teaching. (2002). *Bay Area School Reform Collaborative. Teacher survey. Spring 2002*. Retrieved February 28, 2008, from http://www.stanford.edu/group/CRC/publications_files/BASRC_2002_Teacher_Survey_Form.pdf

Consortium on Chicago School Research. (2005a). *Survey of Chicago Public Schools. Elementary school teacher edition. Spring 2005*. Retrieved February 28, 2008, from http://ccsr.uchicago.edu/downloads/73022005-elementary-teacher-survey.pdf

Consortium on Chicago School Research. (2005b). *Survey of Chicago Public Schools. Elementary school student edition (R). Spring 2005*. Retrieved February 28, 2008, from http://ccsr.uchicago.edu/downloads/98642005-ele-student-reading.pdf

Consortium on Chicago School Research. (2005c). *Survey of Chicago Public Schools. Elementary school student edition (M). Spring 2005*. Retrieved February 28, 2008, from http://ccsr.uchicago.edu/downloads/37972005-ele-student-math.pdf

David, J. and Shields, P. (1991). *From effective schools to restructuring: A literature review.* Menlo Park, California: SRI International.

David, J., Woodworth, K., Grant, E., Guha, R., Lopez-Torkos, A., & Young, V. (2006). *Bay Area KIPP schools: A study of early implementation first year report 2004-05*. Menlo Park, CA: SRI International.

DeAngelis, K., & Presley, J. (2007). *Leaving schools or leaving the profession: Setting Illinois' record straight on new teacher attrition*. Edwardsville, IL: Illinois Education Research Council.

Gallagher, B., & Ross, S. (2005). *Analysis of year 2 (2003-2004) student achievement outcomes for the Memphis KIPP DIAMOND Academy. Center for Research in Educational Policy*. Retrieved March 10, 2008, from http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/c6/e3.pdf

Gill, B., Hamilton, L., Lockwood, J. R., Marsh, J., Zimmer, R., Hill, D., & Pribesh, S. (2005). *Inspiration, perspiration, and time. Operations and achievement in Edison Schools*. Santa Monica, CA: RAND Corporation.

Gottfredson, G. D., Gottfredson, D. C., Czeh, E. R., Cantor, D., Crosse, S. B., & Hantman, I. (2000). *National study of delinquency prevention in schools*, *final report*. Elliot City, MD: Gottfredson Associates, Inc.

Goodlad, J. (2004). *A place called school* (2nd ed.). New York: McGraw-Hill.

Hanushek, E., Kain, J., Rivkin, S., & Branch, G. (2005). *Charter school quality and parental decision making with school choice*. Retrieved March 10, 2008. Available at http://edpro.stanford.edu/hanushek/files_det.asp?FileId=234

Hill, C., Bloom, H., Black, A., & Lipsey, M. (2007). *Empirical benchmarks for interpreting effect sizes in research*. MDRC Working Papers on Research Methodology. Retrieved March 10, 2008, from http://www.mdrc.org/publications/459/full.pdf

Hoxby, C., & Murarka, S. (2007). *Charter schools in New York City: Who enrolls and how they affect their students' achievement*. National Bureau of Economic Research. Retrieved March 10, 2008, from http://www.nber.org/~schools/charterschoolseval/nyc_charter_schools_technical_report_july2007.pdf

Ingersoll, R. (2003). *Is there really a teacher shortage?*. Center for the Study of Teaching and Policy and The Consortium for Policy Research in Education. Retrieved March 10, 2008, from http://depts.washington.edu/ctpmail/PDFs/Shortage-RI-09-2003.pdf

Jimerson, S. R. (2001). Meta-analysis of grade retention research: Implications for practice in the 21st century. *School Psychology Review, 30*(3), 420-437.

Juvonen, J., Le, V., Kaganoff, T., Augustine, C., & Constant, L. (2004). *Focus on the wonder years: Challenges facing the American middle school*. Arlington, VA: The RAND Corporation.

Katz, M. (2006). *Health programs in Bayview Hunter's Point & recommendations for improving the health of Bayview Hunter's Point residents*. San Francisco Department of Public Health. Retrieved March 10, 2008, from http://www.sfdph.org/dph/files/reports/StudiesData/BayviewHlthRpt09192006.pdf

KIPP Foundation. (2006). *KIPP: 2006 report card*. San Francisco, CA: Author.

KIPP Foundation. (2008). *About KIPP: What is a KIPP school?* Retrieved March 7, 2008, from http://www.kipp.org/01/whatisakippschool.cfm

KIPP San Francisco Bay Academy. (2006). *KIPP: San Francisco Bay Academy 2006 annual report*. Retrieved March 10, 2008, from http://www.sfbayacademy.org/pdf/Annual-Report1.pdf

Lankford, H., Loeb, S., & Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis. 24*(1), 37-62.

Lelchuk, I. (2006, May 31). Bayview-Hunters Point**:** S.F.'s invisible majority. Area with highest density of children is most underserved. *San Francisco Chronicle*. Retrieved March 10, 2008, from http://www.sfgate.com/cgibin/article.cgi?f=/c/a/2006/05/31/BAG3UJ4MK71.DTL

Little, R. J. A. and Rubin, D. B. (1987). *Statistical analysis with missing data.* New York: John Wiley.

Mac Iver, M. A., & Farley-Ripple, E. (2007). *The Baltimore KIPP Ujima Village Academy, 2002-2006: A longitudinal analysis of student outcomes*. The Abell Foundation. Retrieved March 10, 2008, from http://www.abell.org/pubsitems/ed_kipp2_607.pdf

Marvel, J., Lyter, D., Peltola, P., Strizek, G., & Morton, B. (2007). *Teacher attrition and mobility: Results from the 2004-05 teacher follow-up survey*. Washington, DC: National Center for Education Statistics.

McNamara, D. (2006). *Profile: Bayview-Hunters Point: Longtime residents moving to suburbs*. Retrieved March 10, 2008, from http://journalism.berkeley.edu/ngno/reports/bayview/bvhp_9_1206.html

Michalopoulos, C., Bloom, H., & Hill, C. (2004). Can propensity-score methods match the findings from a random assignment evaluation of mandatory welfare-to-work programs? *Review of Economics and Statistics, 86*(1), 156-17.

National Center for Education Statistics. (2004a). *Teacher questionnaire. Schools and staffing survey. 2003-04 school year*. Retrieved February 28, 2008, from http://nces.ed.gov/surveys/sass/pdf/0304/sass4a.pdf

National Center for Education Statistics. (2004b). *Schools and staffing survey 2003-04: Public teachers. Data file*. Retrieved March 10, 2008, from http://nces.ed.gov/dasolv2/tables/mainPage.asp?mode=NEW&filenumber=46

National Education Association. (2006). *Rankings and estimates: Rankings of the states 2005 and estimates of school statistics 2006. Table C-11 Average salaries of public school teachers, 2004-05*. Retrieved September 10, 2007, from http://www.nea.org/edstats/images/06rankings.pdf

Oakes, J. (2005). *Keeping track: How schools structure inequality* (2nd ed.). New Haven, CT: Yale University Press.

Rhodes, D., Smerdon, B., Burt, W., Evan, A., Martinez, B., & Means, B. (2005). *Getting to results: Student outcomes in new and redesigned high schools.* Washington, DC: American Institutes for Research and SRI International.

Roderick, M., & Nagaoka. J. (2005). Retention under Chicago's high-stakes testing program: Helpful, harmful, or harmless? *Educational Evaluation and Policy Analysis, 27*(4), 309-340.

Rubenstein, M., Reisner, E., Coon, M., & Fabiano, L. (2005). *New Century high schools. Evaluation findings from the second year*. Retrieved February 28, 2008, from http://www.newvisions.org/schools/downloads/PSA2ndyr.pdf

Shear, L., Song, M., House, A., Martinez, B., Means, B., & Smerdon, B. (2005). *Creating cultures for learning: Supportive relationships in new and redesigned high schools.* Washington, DC: American Institutes for Research and SRI International.

Stevens, W. D., & Kahne, J. (2006). *Professional communities and instructional improvement practices: A study of small high schools in Chicago.* Consortium on Chicago School Research. Retrieved on March 10, 2008, from http://ccsr.uchicago.edu/publications/prof_comm_report.pdf

U.S. Census Bureau. (2000). *DP-1. Profile of general demographic characteristics: 2000. Data set: Census 2000 summary file 1 (SF 1) 100-percent data. Geographic areas: 94124, 94115, 94607, 95122, 94580*. Retrieved March 10, 2008, from http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DEC&_submenuId= &_lang=en&_ts=

U.S. Census Bureau. (2005). *School crime supplement to the national crime victimization survey*. Retrieved February 28, 2008, from http://nces.ed.gov/programs/crime/pdf/student/SCS05.pdf

Wechsler, M., Tiffany-Morales, J., Campbell, A., Humphrey, D., Kim, D., Shields, P., & Wang, H. (2007). *The status of the teaching profession 2007*. Santa Cruz, CA: The Center for the Future of Teaching and Learning.

Young, B. (2002). *Common core data: Characteristics of the 100 largest public elementary and secondary school districts in the United States: 2000-01*. Washington, DC: U.S. Government Printing Office.

KIPP'S FIVE PILLARS

1. High Expectations. KIPP schools have clearly defined and measurable high expectations for academic achievement and conduct that make no excuses based on the students' backgrounds. Students, parents, teachers, and staff create and reinforce a culture of achievement and support through a range of formal and informal rewards and consequences for academic performance and behavior.

2. Choice & Commitment. Students, their parents, and the faculty of each KIPP school choose to participate in the program. No one is assigned or forced to attend a KIPP school. Everyone must make and uphold a commitment to the school and to each other to put in the time and effort required to achieve success.

3. More Time. KIPP schools know that there are no shortcuts when it comes to success in academics and life. With an extended school day, week, and year, students have 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.

4. Power to Lead. The principals of KIPP schools are effective academic and organizational leaders who understand that great schools require great school leaders. They have control over their school budget and personnel. They are free to swiftly move dollars or make staffing changes, allowing them maximum effectiveness in helping students learn.

5. Focus on Results. KIPP schools relentlessly focus on high student performance on standardized tests and other objective measures. Just as there are no shortcuts, there are no excuses. Students are expected to achieve a level of academic performance that will enable them to succeed at the nation's best high schools and colleges.

STATISTICAL SUPPORT FOR STUDENT ACHIEVEMENT ANALYSIS

This appendix includes the statistical support for analyses of student achievement presented in Chapter 2. The following exhibits provide supplemental information for the exhibits and quantitative data presented in this report. They are organized, by section, as the data appear in the report. Within these exhibits, the notation *SE* is used to denote standard error, *SD* is used to denote standard deviation, and *N* denotes the sample size.

WHAT ARE THE ENTERING SCORES OF STUDENTS WHO ATTEND BAY AREA KIPP SCHOOLS AND OF THOSE WHO STAY?

Exhibit B-1
Grade 5 Fall NCE Scores, by School and Cohort

		School A		School B		School C		School D		School E	
		Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math
Cohort 2003 (began KIPP in Fall 2003)	Average NCE score	25.8	29.7	33.1	36.4	36.5	37.2	41.2	44.7	NA	NA
	SD	14.9	14.5	17.1	15.0	16.2	17.0	18.9	18.9	NA	NA
	National percentile rank	12.5	16.8	21.1	25.9	26.1	27.2	33.8	40.1	NA	NA
	N	73	84	70	70	86	86	71	74	NA	NA
Cohort 2004 (began KIPP in Fall 2004)	Average NCE score	27.2	32.8	34.3	38.9	36.6	42.4	42.6	47.7	40.5	52.2
	SD	15.3	15.1	19.7	18.9	17.4	15.0	21.2	21.2	16.1	15.3
	National percentile rank	13.9	20.7	22.8	29.9	26.2	35.9	36.3	45.7	32.6	54.2
	N	74	83	54	54	76	77	70	69	78	78
Cohort 2005 (began KIPP in Fall 2005)	Average NCE score	24.7	30.6	27.4	32.3	34.5	36.6	40.8	45.5	33.7	44.7
	SD	15.5	11.6	17.4	13.2	17.0	16.2	17.2	19.4	14.2	15.0
	National percentile rank	11.5	17.8	14.2	20.0	23.1	26.2	33.1	41.5	21.9	40.1
	N	71	73	52	52	64	65	80	80	80	79
Cohort 2006 (began KIPP in Fall 2006)	Average NCE score	22.3	33.3	37.6	40.0	35.3	38.0	36.8	46.8	46.8	55.4
	SD	14.5	14.2	17.1	16.1	17.2	14.9	17.6	18.8	15.3	17.3
	National percentile rank	9.4	21.4	27.8	31.7	24.3	28.4	26.5	44.0	44.0	60.1
	N	60	63	70	70	78	79	83	86	79	79

NA = not applicable.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-2
Variable Distributions for Students Who Enrolled in KIPP Schools in Fifth Grade vs. the Rest of the District

Variable	School A	Non-KIPP	School B	Non-KIPP	School C	Non-KIPP
Fourth grade ELA score	306.7	343.7	310.6	343.7	315.7	322.5
SD	(37.1)	(52.2)	(34.9)	(52.2)	(36.9)	(49.0)
Fourth grade mathematics score	297.2	349.1	297.4	349.1	300.0	323.4
SD	(55.6)	(68.3)	(49.2)	(68.3)	(46.0)	(65.1)
Age in months	124.5	124.3	124.0	124.3	123.8	125.1
SD	(5.8)	(5.4)	(5.4)	(5.4)	(5.2)	(6.3)
Gender—Female	0.56	0.48	0.56	0.48	0.44	0.50
Ethnicity—Latino	0.02	0.23	0.22	0.23	0.12	0.35
Ethnicity—African-American	0.83	0.14	0.55	0.14	0.81	0.40
English learner	0.01	0.36	0.13	0.36	0.04	0.22
Special education	0.14	0.15	0.14	0.15	0.04	0.11
FPFL	0.81	0.67	0.71	0.67	0.49	0.69
Number of students not missing any variable	133	8,014	147	8,014	107	6,465

Note: The data include all students in the two districts, except 20 students from School A and 16 students from School B, whose parents did not grant us permission to use their children's data for this study.
Source: SRI analysis of CST and demographic data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-3
Logistic Regression Results Predicting KIPP Attendance

Variable	School A (N = 5,271)			School B (N = 6,992)			School C (N = 7,264)		
	Coefficient	SE	Odds Ratio	Coefficient	SE	Odds Ratio	Coefficient	SE	Odds Ratio
Prior ELA score	−0.32 *	0.13	0.73	−0.33 *	0.14	0.72	−0.18	0.14	0.83
Gender–Female	0.18	0.20	1.19	0.00	0.21	1.00	−0.46 *	0.23	0.63
Ethnicity–Latino	−0.63	0.66	0.53	1.27 **	0.36	3.57	0.60	0.63	1.83
Ethnicity–African-American	2.40 **	0.35	10.97	2.35 **	0.35	10.52	2.39 **	0.53	10.90
English learner	−2.76 **	1.04	0.06	−0.66	0.35	0.52	−0.59	0.62	0.56
Special education	−0.32	0.27	0.73	−0.30	0.29	0.74	−0.93	0.47	0.40
FRPL	1.07 **	0.34	2.92	0.30	0.29	1.35	−0.44	0.23	0.65
Age in months	−0.02	0.02	0.98	−0.03	0.02	0.97	−0.05 *	0.02	0.95
Prior mathematics score	−0.20	0.14	0.82	−0.42 **	0.15	0.66	−0.35 *	0.15	0.71
Gender–Female	0.14	0.20	1.15	−0.07	0.21	0.93	−0.47 *	0.23	0.62
Ethnicity–Latino	−0.70	0.66	0.50	1.11 **	0.37	3.02	0.50	0.63	1.65
Ethnicity–African-American	2.39 **	0.34	10.91	2.25 **	0.36	9.50	2.19 **	0.54	8.91
English Learner	−2.71 **	1.04	0.07	−0.52	0.35	0.60	−0.66	0.61	0.52
Special education	−0.27	0.27	0.77	−0.34	0.29	0.72	−0.98 *	0.47	0.38
FRPL	1.16 **	0.34	3.17	0.31	0.29	1.36	−0.47 *	0.23	0.62
Age in months	−0.02	0.02	0.98	−0.02	0.02	0.98	−0.05 **	0.02	0.95

Notes: Prior scores are standardized.
* Statistically significant with p<.05. ** Statistically significant with p<.01.
Source: SRI analysis of CST and demographic data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-4
Percentage of Students Leaving KIPP from Cohorts 2003 and 2004, by Grade and Cohort for Individual Schools

		Number of Students in Grade 5 Cohort	Percentage of Students Who Left KIPP During or Immediately After			Percentage of Students Who Left KIPP During Grade 8	Total Percentage of Students Who Left KIPP Before Completing
			Grade 5	Grade 6	Grade 7		
School A	Cohort 2003	84	23	8	23	5	58
	Cohort 2004	83	12	33	10	NA	54
School B	Cohort 2003	70	17	21	11	6	56
	Cohort 2004	54	11	30	13	NA	54
School C	Cohort 2003	86	44	22	2	7	76
	Cohort 2004	77	31	1	17	NA	49
School D	Cohort 2003	74	7	22	14	7	49
	Cohort 2004	70	11	17	10	NA	39
School E	Cohort 2004	78	10	12	12	NA	33

Note: NA = not applicable, indicating that students had not yet reached the grade by 2006-07.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-5
Percentage of Students Repeating a Grade from KIPP Cohorts 2003 and 2004, by Cohort

	Number of Students in Grade 5 Cohort	Percentage of Students Who Repeated			Total Percentage of Students Who Repeated a Grade
		Grade 5	Grade 6	Grade 7	
Cohort 2003	314	7	2	2	10
Cohort 2004	362	9	3	NA	12
Cohort 2005	351	8	NA	NA	8

Note: NA = not applicable, indicating that students had not yet completed the grade by 2006-07.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-6
Percentage of Students Repeating a Grade from KIPP Cohorts 2003 and 2004, by Grade and Cohort for Individual Schools

		Number of Students in Grade 5 Cohort	Percentage of Students Who Repeated			Total Percentage of Students Who Repeated a Grade
			Grade 5	Grade 6	Grade 7	
School A	Cohort 2003	84	10	4	2	15
	Cohort 2004	83	13	6	NA	19
School B	Cohort 2003	70	4	0	4	9
	Cohort 2004	54	11	6	NA	17
School C	Cohort 2003	86	5	1	0	6
	Cohort 2004	77	8	0	NA	8
School D	Cohort 2003	74	9	1	0	11
	Cohort 2004	70	11	1	NA	13
School E	Cohort 2004	78	8	4	NA	12

Note: NA = not applicable, indicating that students had not yet completed the grade by 2006-07.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Reading Total NCE Score at Start of Grade 5 as a Predictor of Exiting KIPP before Completing Eighth Grade

Student Cohort	Grade 5 Fall NCE Score	B	SE	p value
2003 (N = 300)	Reading Total	–0.028	0.007	<0.001
	Intercept	1.391	0.278	<0.001
2004 (N = 352)	Reading Total	–0.025	0.006	<0.001
	Intercept	0.701	0.245	0.004
2005 (N = 347)	Reading Total	–0.019	0.008	0.013
	Intercept	–0.422	0.257	0.101

Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-8
Mathematics Total NCE Score at Start of Grade 5 as a Predictor of Exiting KIPP before Completing Eighth Grade

Student Cohort	Grade 5 Fall NCE Score	B	SE	p value
2003 (N = 314)	Mathematics Total	–0.031	0.007	<0.001
	Intercept	1.583	0.295	<0.001
2004 (N = 361)	Mathematics Total	–0.028	0.006	<0.001
	Intercept	0.995	0.282	<0.001
2005 (N = 349)	Mathematics Total	–0.031	0.008	<0.001
	Intercept	0.151	0.317	0.635

Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-9
Calculating Probabilities and Odds Ratios, Cohort 2003

Equation for calculating the **probability of students exiting KIPP before completion**, based on Grade 5 Fall Reading Total NCE scores:

log(odds) = –0.0282 (Grade 5 Fall Reading Total NCE Score) + 1.391
probability of exiting KIPP before completion = $e^{log(odds)}/(1 + e^{log(odds)})$

Example probability calculations:

Student A has a Grade 5 Fall Reading Total NCE score of 20

log(odds) = –0.0282 (20) + 1.391 = 0.827
probability of exiting KIPP before completion = $e^{0.827}/(1 + e^{0.827})$ = 0.70

Student B has a Grade 5 Fall Reading Total NCE score of 35

log(odds) = –0.0282 (35) + 1.391 = 0.404
probability of exiting KIPP before completion = $e^{0.404}/(1 + e^{0.404})$ = 0.60

Student C has a Grade 5 Fall Reading Total NCE score of 50

log(odds) = –0.0282 (50) + 1.391 = -0.019
probability of exiting KIPP mid-program = $e^{-0.019}/(1 + e^{-0.019})$ = 0.50

The odds ratio **compares the odds of exiting KIPP before completion**, for students with different Grade 5 Fall Reading Total NCE scores.

Example odds ratio calculation:

A score of 20 vs. a score of 50: $e^{0.827}/e^{-0.019}$ = 2.3

Odds ratio interpretation: A student with a Fall Reading Total NCE score of 20 is 2.3 times more likely than a student with a score of 50 to exit KIPP before completion.

Exhibit B-10
Average Grade 4 CST Scores for Students Who Stayed at KIPP
Compared with Non-KIPP Students from the Host Districts[a]

	School A		School B		School C	
Variable	**Stayers**	**Non-KIPP**	**Stayers**	**Non-KIPP**	**Stayers**	**Non-KIPP**
Fourth-grade ELA score	312.5	343.7	317.7	343.7	330.8	322.5
SD	(39.3)	(52.2)	(39.0)	(52.2)	(35.4)	(49.0)
N	45	7.888	37	7,888	29	6,482
Fourth-grade mathematics score	309.9	349.1	306.2	349.1	318.1	323.4
SD	(60.3)	(68.3)	(54.2)	(68.3)	(42.1)	(65.1)
N	46	7,889	37	7,889	29	6,473

[a] As Cohort 2003 and 2004 students, those identified as "stayers" as of 2006-07 have continued through seventh or eighth grade.

HOW DO KIPP'S ACHIEVEMENT RESULTS COMPARE WITH NATIONAL NORMS?

Exhibit B-11
Average SAT10 Mathematics NCE Changes Across Each Grade, by School and Cohort

			Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring		Grade 7 Spring-Grade 8 Spring	
School A	Cohort 2003	Mean	7.1[a]	**	25.2[b]	**	–1.0		–3.8	**
		SD	10.4[a]		10.9[b]		9.0		6.3	
		N	57[a]		73[b]		46		38	
	Cohort 2004	Mean	13.3	**	2.9		5.8	**		
		SD	11.8		11.5		9.2			
		N	69		35		47			
	Cohort 2005	Mean	8.4	**	9.1	**				
		SD	10.8		9.8					
		N	67		49					
	Cohort 2006	Mean	16.0	**						
		SD	13.5							
		N	51							
School B	Cohort 2003	Mean	8.2	**	5.9	**	13.4	**	–1.3	
		SD	11.0		12.0		8.3		6.4	
		N	57		47		47		34	
	Cohort 2004	Mean	10.6	**	10.9	**	3.7	*		
		SD	9.9		10.8		9.4			
		N	45		32		39			
	Cohort 2005	Mean	27.5	**	–1.1					
		SD	12.5		11.7					
		N	48		39					
	Cohort 2006	Mean	25.6	**						
		SD	13.6							
		N	60							
School C	Cohort 2003	Mean	11.5[a]	**			8.3[c]	**	–5.5	**
		SD	9.8[a]				10.4[c]		8.3	
		N	43[a]				40[c]		36	
	Cohort 2004	Mean	NA		14.2[d]	**	–4.6	**		
		SD	NA		9.6[d]		8.5			
		N	NA		47[d]		44			
	Cohort 2005	Mean	5.4	**	4.4	*				
		SD	11.3		12.2					
		N	55		32					
	Cohort 2006	Mean	4.4	**						
		SD	12.1							
		N	66							

			Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring	Grade 7 Spring-Grade 8 Spring
School D	Cohort 2003	Mean	10.8	**	5.4	**	–0.1	–0.9
		SD	12.1		11.2		9.2	7.6
		N	69		49		56	59
	Cohort 2004	Mean	10.2	**	4.3	**	0.0	
		SD	9.8		7.6		9.8	
		N	57		46		61	
	Cohort 2005	Mean	10.4	**	3.2	*		
		SD	10.0		10.7			
		N	68		59			
	Cohort 2006	Mean	12.0	**				
		SD	10.8					
		N	79					
School E	Cohort 2004	Mean	24.4	**	3.1	**	0.9	
		SD	9.5		7.4		7.6	
		N	69		58		57	
	Cohort 2005	Mean	29.6	**	1.6			
		SD	10.7		8.8			
		N	74		60			
	Cohort 2006	Mean	25.1	**				
		SD	9.8					
		N	73					

Note: NA = not available.
[a] Grade 5 Fall-Grade 6 Fall
[b] Grade 6 Fall-Grade 6 Spring
[c] Grade 6 Fall-Grade 7 Spring
[d] Grade 5 Fall-Grade 6 Spring
* Statistically significant with p<.05. ** Statistically significant with p<.01.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

Exhibit B-12
Average SAT10 Reading NCE Changes Across Each Grade, by School and Cohort

			Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring		Grade 7 Spring-Grade 8 Spring
School A	**Cohort 2003**	Mean	4.4[a]	**	15.7[b]	**	−0.4		0.2
		SD	8.7[a]		9.3[b]		9.2		8.7
		N	49[a]		70[b]		46		38
	Cohort 2004	Mean	7.5	**	3.4		1.8		
		SD	10.5		9.9		8.1		
		N	64		35		47		
	Cohort 2005	Mean	7.1	**	−4.3	**			
		SD	12.9		9.6				
		N	66		49				
	Cohort 2006	Mean	8.7	**					
		SD	8.8						
		N	49						
School B	**Cohort 2003**	Mean	5.6	**	2.3		11.3	**	0.6
		SD	10.1		10.0		11.0		7.2
		N	57		46		46		34
	Cohort 2004	Mean	4.9	**	5.2	*	2.2		
		SD	9.7		12.4		9.6		
		N	45		32		39		
	Cohort 2005	Mean	20.6	**	−1.6				
		SD	11.9		8.7				
		N	47		39				
	Cohort 2006	Mean	13.5	**					
		SD	11.7						
		N	60						
School C	**Cohort 2003**	Mean	5.2[a]	**	NA		3.2[c]	*	−0.5
		SD	9.0[a]		NA		8.6[c]		8.7
		N	43[a]		NA		40[c]		36
	Cohort 2004	Mean	NA		7.3[d]	**	−3.9	*	
		SD	NA		14.1[d]		11.3		
		N	NA		46[d]		43		
	Cohort 2005	Mean	6.0	**	−5.2	*			
		SD	10.5		14.1				
		N	55		35				
	Cohort 2006	Mean	5.7	**					
		SD	11.3						
		N	65						

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		Grade 5 Fall-Grade 5 Spring		Grade 5 Spring-Grade 6 Spring		Grade 6 Spring-Grade 7 Spring		Grade 7 Spring-Grade 8 Spring
School D								
Cohort 2003	Mean	4.4	**	3.1	*	−3.1	*	1.6
	SD	10.8		9.0		9.1		8.4
	N	67		49		56		59
Cohort 2004	Mean	3.0	*	3.3	*	1.5		
	SD	9.4		9.8		12.2		
	N	59		46		60		
Cohort 2005	Mean	8.4	**	1.4				
	SD	8.7		8.9				
	N	68		59				
Cohort 2006	Mean	11.0	**					
	SD	9.8						
	N	77						
School E								
Cohort 2004	Mean	15.7	**	5.7	**	−4.9	**	
	SD	9.2		8.3		10.5		
	N	69		59		58		
Cohort 2005	Mean	19.3	**	−1.9				
	SD	8.6		8.7				
	N	75		60				
Cohort 2006	Mean	9.1	**					
	SD	9.6						
	N	73						

Notes: NA = not available.
[a] Grade 5 Fall-Grade 6 Fall
[b] Grade 6 Fall-Grade 6 Spring
[c] Grade 6 Fall-Grade 7 Spring
[d] Grade 5 Fall-Grade 6 Spring
* Statistically significant with $p<.05$. ** Statistically significant with $p<.01$.
Source: SRI analysis of SAT10 data provided by the KIPP Foundation.

HOW DO KIPP STUDENTS PERFORM ON STATE TESTS?

Exhibit B-13
API Scores by Race/Ethnicity Subgroup, 2004-05 to 2006-07

	Bayview Academy			SF Bay Academy			Bridge College Preparatory Academy				Summit Academy			Heartwood Academy	
	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2003-04	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2005-06	2006-07
All	711	704	741	698	836	866	715	803	746	763	801	815	805	918	914
African-American	708	685	723	626	792	834	NA	784	729	742	NA	NA	NA	NA	NA
Latino	NA	NA	NA	NA	NA	880	NA	NA	NA	NA	NA	745	765	914	906
Asian	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	908	898	NA	NA

Notes: NA = not available because of the small number of students.
Source: California Department of Education, 2008e.

ARE STUDENT ACHIEVEMENT GAINS ATTRIBUTABLE TO KIPP?

Exhibit B-14
Matching of Fifth-grade KIPP Students

		KIPP Students for Matching	Matched KIPP Students	Standard Deviation Caliper[a]
School A	Cohort 2003	56	50	0.10
	Cohort 2004	48	44	0.05
School B	Cohort 2003	52	51	0.20
	Cohort 2004	39	38	0.10
School C	Cohort 2003	48	48	0.10
	Cohort 2004	36	32	0.05
Total		279	263	

[a] We applied caliper matching with replacement to match each KIPP student with all students from the same zip code who attended the same grade at other public schools in the district and whose propensity scores (logits) of KIPP attendance are within a certain caliper (in standard deviations of KIPP students' propensity scores) to that of the KIPP student. To ensure equal representation of the characteristics of each KIPP student in the comparison group, we weighted each KIPP student's matches by the inverse of the number of matches to the KIPP student. These weights were used in all analyses comparing matched KIPP and non-KIPP students.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-15
Achievement Differences Between KIPP and Non-KIPP Students Before and After Matching

			Score Difference (Non-KIPP vs. KIPP)				
			Prematching		Postmatching		Percent Bias Reduction
			Scale Score	Standardized	Scale Score	Standardized	
School A	**Cohort 2003**	Prior ELA score	31.41	0.62	−1.39	−0.03	1.04
		Prior mathematics score	45.58	0.67	0.96	0.01	0.98
	Cohort 2004	Prior ELA score	43.80	0.86	0.01	0.00	1.00
		Prior mathematics score	59.31	0.88	−0.88	−0.01	1.01
School B	**Cohort 2003**	Prior ELA score	32.85	0.64	0.98	0.02	0.97
		Prior mathematics score	50.81	0.75	1.98	0.03	0.96
	Cohort 2004	Prior ELA score	33.84	0.66	1.88	0.04	0.94
		Prior mathematics score	52.66	0.78	0.15	0.00	1.00
School C	**Cohort 2003**	Prior ELA score	3.09	0.06	−0.66	−0.01	1.21
		Prior mathematics score	17.12	0.25	−0.90	−0.01	1.05
	Cohort 2004	Prior ELA score	11.82	0.23	1.02	0.02	0.91
		Prior Mathematics score	30.85	0.46	−0.39	−0.01	1.01

Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

		Cohort 2003		Cohort 2004	
		KIPP	Non-KIPP	KIPP	Non-KIPP
School A	Number	50	319	44	177
	Gender—Female	0.62	0.61	0.43	0.42
	Ethnicity—Latino	0.04	0.02	0.00	0.04
	Ethnicity—African-American	0.86	0.87	0.86	0.86
	English Learner	0.02	0.03	0.00	0.00
	Special Education	0.22	0.24	0.14	0.10
	FRPL	0.96	0.96	0.89	0.84
	Starting age (months)	122.96	123.31	124.25	123.97
	Fourth grade ELA score	315.06	313.67	299.30	299.31
	SD	(37.18)	(36.56)	(37.45)	(39.27)
	Fourth grade math score	302.80	303.76	293.25	292.37
	SD	(58.83)	(56.14)	(47.76)	(44.89)
	Fifth grade ELA score	308.50	310.05	314.00	305.30
	SD	(42.46)	(42.45)	(39.04)	(39.80)
	Fifth grade math score	316.10	290.58	314.66	289.74
	SD	(60.41)	(56.07)	(80.23)	(67.53)
School B	Number	51	840	38	450
	Gender—Female	0.47	0.43	0.53	0.53
	Ethnicity—Latino	0.27	0.24	0.13	0.16
	Ethnicity—African-American	0.53	0.54	0.79	0.79
	English Learner	0.20	0.24	0.13	0.13
	Special Education	0.20	0.15	0.13	0.17
	FRPL	0.84	0.80	0.82	0.82
	Starting age (months)	124.23	124.07	123.88	123.81
	Fourth grade ELA score	312.86	313.84	309.85	311.73
	SD	(33.42)	(32.19)	(38.49)	(41.52)
	Fourth grade math score	297.87	299.85	297.66	297.80
	SD	(45.42)	(43.64)	(54.21)	(55.51)
	Fifth grade ELA score	321.69	318.32	323.26	312.81
	SD	(48.19)	(40.99)	(46.08)	(43.49)
	Fifth grade math score	305.53	290.89	335.05	294.58
	SD	(58.96)	(51.18)	(95.64)	(72.19)

		Cohort 2003		Cohort 2004	
		KIPP	**Non-KIPP**	**KIPP**	**Non-KIPP**
School C	Number	48	533	32	143
	Gender—Female	0.40	0.39	0.47	0.51
	Ethnicity—Latino	0.08	0.08	0.16	0.15
	Ethnicity—African-American	0.88	0.89	0.78	0.83
	English Learner	0.02	0.02	0.09	0.10
	Special Education	0.06	0.09	0.06	0.09
	FRPL	0.60	0.61	0.69	0.64
	Starting age (months)	123.69	123.99	122.81	124.51
	Fourth grade ELA score	319.04	318.39	312.26	313.27
	SD	(37.55)	(37.70)	(37.28)	(34.85)
	Fourth grade math score	303.43	302.54	299.21	298.81
	SD	(48.21)	(47.05)	(45.14)	(44.77)
	Fifth grade ELA score	333.63	313.89	346.97	318.10
	SD	(42.98)	(44.19)	(43.37)	(39.41)
	Fifth grade math score	336.13	294.84	374.69	301.31
	SD	(65.63)	(57.71)	(75.68)	(63.26)

Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Fifth Grade KIPP Effects and Effect Sizes by Cohort by School

			Number of Students		Fifth-Grade Score							Estimated Percentile Rank[b]		
			KIPP	Non-KIPP	Adjusted KIPP Mean[a]	Adjusted Non-KIPP Mean[a]	Effect Estimate		SE	Effect Size		KIPP	Non-KIPP	Diff-erence
School A	Cohort 2003	ELA	50	319	311.91	314.70	–2.8		4.2	–0.05		30.2	32.0	-1.8
		Math	50	319	320.85	294.68	26.2	**	6.3	0.31		38.4	27.4	11.0
	Cohort 2004	ELA	44	177	317.23	308.52	8.7	*	4.3	0.16		33.7	28.1	5.6
		Math	44	177	315.21	291.25	24.0	**	8.3	0.28		35.9	26.1	9.9
School B	Cohort 2003	ELA	51	840	325.61	321.43	4.2		4.5	0.08		39.4	36.5	2.9
		Math	51	840	315.58	299.45	16.1	**	5.7	0.19		36.1	29.3	6.8
	Cohort 2004	ELA	38	450	327.23	315.28	11.9	*	4.9	0.22		40.6	32.4	8.2
		Math	38	450	346.89	306.25	40.6	**	6.9	0.48		50.5	32.1	18.4
School C	Cohort 2003	ELA	48	533	332.45	313.28	19.2	**	4.6	0.35		44.3	31.1	13.2
		Math	48	533	336.19	295.67	40.5	**	6.4	0.48		45.5	27.8	17.7
	Cohort 2004	ELA	32	143	345.18	315.42	29.8	**	5.0	0.54		53.5	32.5	21.0
		Math	32	143	373.98	301.03	73.0	**	8.5	0.86		62.9	29.9	33.0

Statistically significant with $p<.05$. ** Statistically significant with $p<.01$.
[a] Means are calculated from estimated individual scores adjusting for prior achievement.
[b] Percentile ranks are estimated assuming normal distribution of the test scores.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Fifth Grade KIPP Effects and Effect Sizes, Based on Matching with Two Years of Prior Achievement

			Number of Students		Fifth-Grade Score			
			KIPP	Non-KIPP	Effect Estimate		SE	Effect Size
School A	Cohort 2003	ELA	46	230	–1.0		4.2	–0.02
		Math	46	230	34.7	**	6.4	0.41
	Cohort 2004	ELA	43	216	15.6	**	4.8	0.28
		Math	43	216	29.0	**	7.6	0.34
School B	Cohort 2003	ELA	42	476	8.3		4.5	0.15
		Math	42	476	16.3	**	6.1	0.19
	Cohort 2004	ELA	32	442	13.0	**	4.5	0.24
		Math	32	442	49.6	**	6.5	0.58
School C	Cohort 2003	ELA	36	337	16.8	**	4.5	0.30
		Math	36	337	34.7	**	7.6	0.41
	Cohort 2004	ELA	32	195	29.8	**	5.1	0.54
		Math	32	195	85.0	**	7.6	1.00

* Statistically significant with $p<.05$. ** Statistically significant with $p<.01$.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-19
Variable Distributions of 2003-04 and 2004-05 Grade 5 Students Included in the Final Analysis and Those Who Were Excluded

Variable	Students Included in the Final Analysis			Students not Included in the Final Analysis		
	N	Mean	SD	N	Mean	SD
Fourth grade ELA score	263	311.63	36.97	32	302.85	30.51
Fourth grade mathematics score	263	299.18	50.01	32	293.24	59.12
Ethnicity–Latino	263	0.11	0.32	135	0.13	0.34
Ethnicity–African-American	263	0.78**	0.42	135	0.64**	0.48
English learner	263	0.08	0.27	135	0.03	0.17
Special education	263	0.14**	0.35	135	0.04**	0.21
FRPL	263	0.81**	0.40	135	0.42**	0.50
Age in months	263	123.67*	4.90	135	125.07*	6.42
Gender–Female	263	0.49	0.50	135	0.59	0.49

Exhibit B-20
Matching of Students Who Joined KIPP at Sixth Grade

	Total KIPP Students in Dataset	KIPP Students for Matching	Matched KIPP Students	Standard Deviation Caliper
School A	36	31	26	0.1
School B	39	29	25	0.1
School C	23	22	19	0.1
Total	62	51	44	

Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-21
Postmatching Variable Distributions for Students Who Joined KIPP at Sixth Grade

		KIPP	Non-KIPP
School A	Number	26	218
	Gender—Female	0.62	0.68
	Ethnicity—Latino	0.19	0.10
	Ethnicity—African-American	0.73	0.76
	English Learner	0.15	0.12
	Special Education	0.04	0.11
	FRPL	0.81	0.82
	Starting age (months)	122.94	123.37
	Fourth grade ELA score	317.50	319.46
	SD	(40.16)	(50.91)
	Fourth grade math score	292.12	293.78
	SD	(60.00)	(68.96)
	Fifth grade ELA score	335.08	313.00
	SD	(42.47)	(59.99)
	Fifth grade math score	324.15	301.40
	SD	(85.93)	(64.86)
School B	Number	25	314
	Gender—Female	0.52	0.54
	Ethnicity—Latino	0.44	0.44
	Ethnicity—African-American	0.36	0.39
	English Learner	0.44	0.45
	Special Education	0.08	0.07
	FRPL	0.84	0.94
	Starting age (months)	123.62	123.47
	Fourth grade ELA score	324.48	321.78
	SD	(57.15)	(46.57)
	Fourth grade math score	321.60	319.61
	SD	(79.47)	(67.23)
	Fifth grade ELA score	349.36	309.54
	SD	(58.47)	(72.31)
	Fifth grade math score	371.72	305.76
	SD	(82.34)	(88.94)

School C		KIPP	Non-KIPP
	Number	19	208
	Gender—Female	0.58	0.57
	Ethnicity—Latino	0.16	0.14
	Ethnicity—African-American	0.68	0.59
	English Learner	0.16	0.20
	Special Education	0.05	0.05
	FRPL	0.74	0.82
	Starting age (months)	123.95	126.01
	Fourth grade ELA score	323.74	325.96
	SD	(53.68)	(45.50)
	Fourth grade math score	316.68	315.14
	SD	(79.94)	(75.60)
	Fifth grade ELA score	325.84	313.56
	SD	(58.88)	(48.09)
	Fifth grade math score	339.95	313.34
	SD	(69.79)	(65.00)

Exhibit B-22
KIPP Effects and Effect Sizes for Students Who Joined KIPP at Sixth Grade by School

		Number of Students		Sixth-Grade Score					Estimated Percentile Rank[b]		
		KIPP	Non-KIPP	Adjusted KIPP Mean[a]	Adjusted Non-KIPP Mean[a]	Effect Estimate		SE	Effect Size	KIPP	Non-KIPP	Diff-erence
School A	ELA	26	218	342.96	319.56	23.4 **	7.6	0.42	54.9	38.4	16.5
	Math	26	218	334.78	312.30	22.5 *	9.0	0.30	45.8	34.3	11.6
School B	ELA	25	314	352.40	314.26	38.1 **	10.7	0.68	61.5	34.8	26.6
	Math	25	314	379.49	313.77	65.7 **	13.8	0.88	68.9	35.0	33.9
School C	ELA	19	208	319.09	305.39	13.7 *	5.7	0.24	38.1	29.2	8.9
	Math	19	208	331.68	306.50	25.2 **	7.0	0.34	44.2	31.5	12.7

Statistically significant with $p<.05$. ** Statistically significant with $p<.01$.
[a] Means are calculated from estimated individual scores adjusting for prior achievement.
[b] Percentile ranks are estimated assuming normal distribution of the test scores.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-23
Differences in KIPP Effects on Stayers and Leavers/Retained Students

Variable	N	ELA		Mathematics	
		Effect Estimate	Effect Size	Effect Estimate	Effect Size
Leavers/retained students	179	6.3**	0.11	28.1**	0.33
Stayers	84	20.8**	0.38	53.2**	0.62
Stayers vs. leavers/retained students	263	14.6**	0.26	25.1**	0.29

Note: Stayers and leavers are compared with their respective comparison groups and at the same prior achievement level.
** Statistically significant with p<.01.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

Exhibit B-24
Differences in KIPP Effects on District Stayers and District Leavers/Retained Students

Variable	N	ELA		Mathematics	
		Effect Estimate	Effect Size	Effect Estimate	Effect Size
District leavers/retained students	114	5.3	0.10	28.1**	0.33
District stayers	149	12.7**	0.23	39.7**	0.47
Stayers vs. leavers/retained students	263	7.4	0.13	11.6*	0.14

Note: Stayers and leavers are compared with their respective comparison groups and at the same prior achievement level.
* Statistically significant with p<.05. ** Statistically significant with p<.01.
Source: SRI analysis of CST data provided by two Bay Area districts that are host to KIPP schools.

STATISTICAL SUPPORT FOR SURVEY DATA

This appendix presents the statistical support for the analyses of teacher and student survey data presented in Chapters 1, 3, 4, and 5. The following exhibits, which provide supplemental information for the exhibits and quantitative data presented in those chapters, are organized as the data appear in the report. In these exhibits, the notation *SE* is used to denote standard error and *N* denotes the sample size.

Exhibit C-1
Percentage of Teachers Who Responded "Yes"

	School Range (%)	All Schools		
		%	SE	N
Valid teaching credential from California or another state	62–100	76	4.32	64
Entered teaching through an alternative route	50–80	70	4.90	63
Teach for America Corps Member or alumni	15–45	34	5.06	64

Exhibit C-2
Percentage of Teachers Who Responded that They "Agree" or "Strongly agree" with the Following Statements about Their Instructional Practices

	School Range (%)	All Schools		
		%	SE	N
I am given the support I need to teach students with special needs.	39–100	57	4.74	66
I draw on many different sources in planning units and lessons.	94–100	99	0.92	66
I create my own lessons most of the time.	92–100	98	1.26	66
I rely primarily on one or more textbooks for lessons.	8–46	27	4.52	65
I make a conscious effort to coordinate the content of my courses with that of other teachers.	33–69	56	5.12	66
I review student assessment data to adjust my instruction.	94–100	99	0.92	65
I use a variety of assessment strategies to measure student progress.	77–100	90	3.08	66
Preparing students for the state test is central to my lesson planning.	67–100	81	3.9	65

Exhibit C-3
Percentage of Teachers Who Responded "Agree" or "Strongly agree" that Their Principal Does the Following

	School Range (%)	All Schools		
		%	SE	N
Actively monitors the quality of teaching in this school	31–100	77	3.68	66
Carefully tracks student academic progress	38–100	75	4.06	66
Knows what's going on in my classroom	23–100	71	4.00	66
Regularly observes my classes	8–92	45	4.34	66

Exhibit C-4
Percentage of Teachers Who Responded "Agree" or "Strongly agree" with the Following Statements About Their School

	School Range (%)	All Schools		
		%	SE	N
My colleagues share my beliefs and values about the central mission of the school.	54–100	89	2.86	66
Teachers share a commitment to the success of all students.	85–100	97	1.70	65
Teachers expect all students to go to college.	85–100	93	2.66	66
Teachers go out of their way to be available to students.	85–100	95	2.34	66
Choices about instructional strategies are up to each teacher.	89–100	96	1.78	66
Teachers differ in their conceptions of effective instructional practices.	56–92	81	3.78	66

Exhibit C-5
Percentage of Teachers Who Responded "Agree" or "Strongly agree" with the Following Statements About the Behavior Management System at Their Schools

	School Range (%)	All Schools		
		%	SE	N
Rules for student behavior are consistently enforced by teachers in this school, even for students who are not in their classes.	46–100	70	4.28	66
Maintaining appropriate responses to student misbehavior is challenging.	23–72	55	4.98	66
Finding the right incentives to manage student behavior is a struggle.	15–89	50	4.8	66
I am not comfortable with our discipline policies.	0–62	34	4.43	66
Clear and consistent rules for behavior allow me to focus on teaching instead of behavior management.	33–100	80	3.34	66
The school is a safe environment for students and teachers.	70–100	91	2.96	65

Exhibit C-6
Percentage of Teachers Who Responded How Well Prepared They Were to Do the Following

		School Range (%)	All Schools	
			%	SE
Handle a range of classroom management or discipline situations (N = 66)	Not at all prepared	NA	0	0.00
	Poorly prepared	0–10	5	2.25
	Adequately prepared	23–60	41	5.06
	Well prepared	30–77	54	5.00
Use a variety of instructional methods (N = 66)	Not at all prepared	NA	0	0.00
	Poorly prepared	0–11	2	1.26
	Adequately prepared	25–80	45	4.82
	Well prepared	20–75	53	4.80
Plan lessons effectively (N = 66)	Not at all prepared	NA	0	0.00
	Poorly prepared	0–8	2	1.26
	Adequately prepared	8–50	33	4.79
	Well prepared	50–92	66	4.81
Assess student learning (N = 66)	Not at all prepared	NA	0	0.00
	Poorly prepared	NA	0	0.00
	Adequately prepared	42–83	62	5.04
	Well prepared	17–58	39	5.04

Note: NA = not applicable.

Exhibit C-7
Percentage of Teachers Who Responded How Important the Following Features Were in Helping Students Succeed

		School Range (%)	All Schools	
			%	SE
Explicit and high expectation for student learning (N = 63)	Not Important	NA	0	0.00
	Somewhat important	0–6	1	0.92
	Important	0–10	6	2.67
	Extremely important	89–100	92	2.81
Consistent enforcement of school rules (N = 64)	Not Important	NA	0	0.00
	Somewhat important	0–6	1	0.92
	Important	15–42	25	4.54
	Extremely important	58–85	74	4.58
Focus on going to college (N = 64)	Not Important	NA	0	0.00
	Somewhat important	0–17	6	2.61
	Important	15–56	36	4.98
	Extremely important	39–85	57	5.00
Extended school day (N = 64)	Not Important	0–11	4	2.05
	Somewhat important	6–42	22	4.43
	Important	20–62	38	5.02
	Extremely important	25–44	35	5.13
Saturday school (N = 63)	Not Important	15–80	59	4.73
	Somewhat important	8–38	24	4.43
	Important	0–38	14	3.46
	Extremely important	0–8	3	1.85
Summer school (N = 62)	Not Important	0–17	6	2.23
	Somewhat important	25–40	30	5.04
	Important	33–50	43	5.42
	Extremely important	8–42	22	4.48
Paycheck system (N = 63)	Not Important	0–11	5	2.49
	Somewhat important	15–39	27	4.82
	Important	15–64	39	5.11
	Extremely important	9–69	28	4.23

Note: NA = not applicable.

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Exhibit C-8
Percentage of Students Who Responded "Agree" or "Strongly agree" with the Following Statements

	School Range (%)	All Schools		
		%	SE	N
This school will help get me to college.	89–99	95	0.82	706
It's easy to make friends at this school.	77–89	81	1.38	705
I feel safe at this school.	66–95	79	1.42	704

Exhibit C-9
Percentage of Students Who Responded that "Most students" or "All students" Plan to Attend College

School Range (%)	All Schools		
	%	SE	N
76–97	85	1.26	706

Exhibit C-10
Percentage of Students Who Responded that "Most teachers" or "All teachers" Do the Following

	School Range (%)	All Schools		
		%	SE	N
Expect everyone to work hard	94–100	98	0.58	708
Believe that all students can do well	87–99	95	0.84	708
Treat students with respect	71–94	82	1.36	704

Exhibit C-11
Students' Ratings of the Importance of Selected Features of KIPP

		School Range (%)	All Schools	
			%	SE
Focus on going to college **(N = 707)**	Not important	0–7	3	0.52
	Somewhat important	5–14	8	0.92
	Very important	82–95	90	1.06
	Not Applicable	0–1	1	0.16
Teachers who are committed to my learning **(N = 703)**	Not important	1–6	2	0.56
	Somewhat important	4–19	9	1.02
	Very important	77–95	88	1.14
	Not Applicable	0–1	1	0.20
Strict rules for behavior **(N = 703)**	Not important	5–13	9	1.04
	Somewhat important	25–49	35	1.68
	Very important	38–71	56	1.76
	Not Applicable	0–1	1	0.26
Longer school day **(N = 703)**	Not important	15–29	21	1.46
	Somewhat important	39–43	42	1.78
	Very important	28–41	36	1.74
	Not Applicable	0–2	1	0.34
Summer school **(N = 702)**	Not important	17–36	26	1.56
	Somewhat important	32–45	40	1.76
	Very important	20–39	34	1.72
	Not Applicable	0–1	1	0.14
Saturday school **(N = 704)**	Not important	22–60	39	1.70
	Somewhat important	27–44	38	1.74
	Very important	12–34	23	1.54
	Not Applicable	0–2	2	0.32
Uniforms **(N = 707)**	Not important	34–56	50	1.78
	Somewhat important	24–34	29	1.62
	Very important	11–33	21	1.48
	Not Applicable	0–3	1	0.32

Exhibit C-12
Percentage of Students Who Responded "Agree" or "Strongly agree" about the Rules at Their School

	School Range (%)	All Schools		
		%	SE	N
The school rules are strictly enforced or applied.	85–96	88	1.16	703
Everyone knows what the school rules are.	78–94	87	1.20	711
The consequences for breaking rules are the same for everyone.	60–81	71	1.62	707
The school rules are fair.	37–84	56	1.70	705

Exhibit C-13
Percentage of Students Who Responded "Agree" about the Adults at Their School

	School Range (%)	All Schools		
		%	SE	N
There is at least one adult who really cares about me.	64–94	84	1.22	695
There is at least one adult who I can talk to about any concern or problem.	66–88	81	1.38	705

Exhibit C-14
Percentage of Students Who Responded that the Following Activities Occurred "Sometimes," "Often," or "Very often" in Their School

	School Range (%)	All Schools		
		%	SE	N
Bullying or teasing	27–73	58	1.70	707
Cheating	20–56	37	1.64	706
Fighting	7–38	21	1.44	711

Exhibit C-15
Percentage of Teachers Who Responded that They Do the Following
"Once or twice a month," "Once or twice a week," or "Almost daily"

	School Range (%)	All Schools		
		%	SE	N
Discuss student assessment data to make decisions about instruction	38–92	71	4.40	66
Observe each other's classrooms to offer feedback and/or gather ideas	10–92	55	3.92	66

Exhibit C-16
Percentage of Students Who Responded that the Following "Often" or "Always" Occur in Their Mathematics Class

	School Range (%)	All Schools		
		%	SE	N
I have to work hard to do well.	69–94	81	1.36	709
The lessons challenge me and make me think.	47–80	60	1.72	710
This class stays busy and doesn't waste time.	33–84	57	1.68	705

Exhibit C-17
Percentage of Students Who Responded that the Following
"Often" or "Always" Occur in Their Reading or Language Arts Class

	School Range (%)	All Schools		
		%	SE	N
I have to work hard to do well.	63–80	72	1.6	709
This class stays busy and doesn't waste time.	38–75	58	1.72	705
The lessons challenge me and make me think.	42–63	54	1.78	709

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Exhibit C-18
**Percentage of Teachers Who Responded that the Following Activities Have Been
"Valuable" or "Extremely valuable" in Helping Them Improve Their Teaching**

	School Range (%)	All Schools		
		%	SE	N
Informal conversations with teachers	75–100	87	3.64	64
Mentoring or coaching	71–100	82	5.24	42
Visits to other schools	60–92	79	4.28	58
KIPP content area retreats	56–100	71	5.14	50
Observations by principal or dean of instruction	20–92	62	4.64	59
KIPP Summit	36–78	61	5.6	52
Peer observations	33–75	57	5.76	57
Grade level meetings	36–83	53	5.26	61