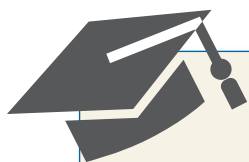


## KIPP Middle Schools Produce Significant Achievement Gains in Reading, Math, Science, and Social Studies



### The Knowledge is Power Program

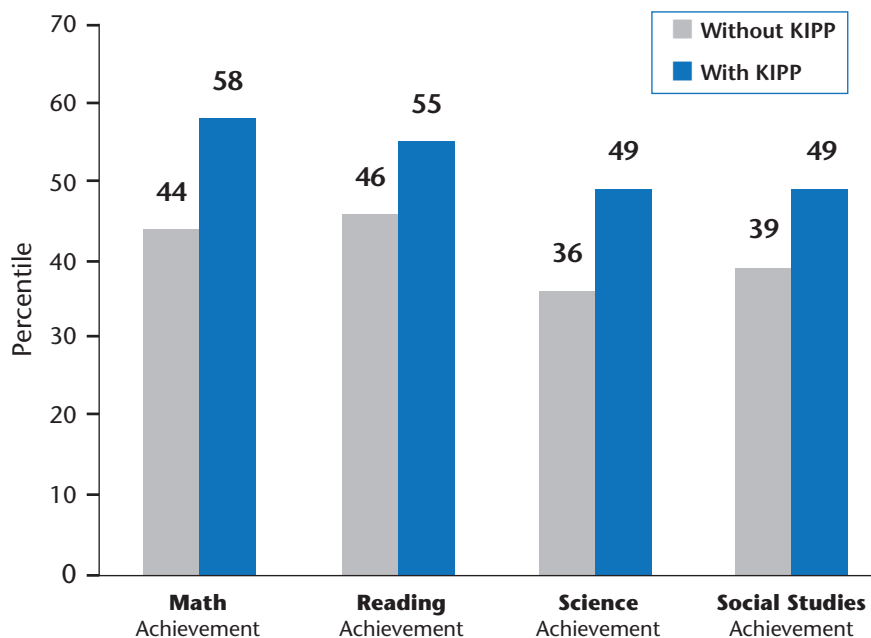
**(KIPP)** is a rapidly growing network of public charter schools whose mission is to improve the education of low-income children and lay the foundation for their success in college. Started in 1995 as a middle school program, **KIPP** has since expanded to elementary and high schools. As of the 2012-13 school year, 125 **KIPP** schools are operating in 20 states and the District of Columbia.

**Mathematica has contributed substantially to the charter school discussion** by conducting a rigorous, multi-year evaluation of **KIPP** schools that is meant to determine the program's impact on student achievement and other outcomes. A 2010 Mathematica report covering 22 **KIPP** middle schools indicated that the program is having a strong positive impact on achievement in math and reading. **The newly released 2013 report covers 43 schools—the majority of KIPP middle schools—and documents impacts on achievement in science and social studies as well as math and reading.** In addition to reviewing students' scores on state tests, the report presents findings on a national test that includes measures of higher-order thinking skills, and on attitudes and behavior as measured by student and parent surveys.

### Impact on Student Achievement

Mathematica used a matched comparison design and a random assignment lottery to produce comprehensive evidence on the effects of **KIPP** middle schools across the country. In the large majority of these schools, **KIPP's impact on student achievement in math, reading, science, and social studies is consistently positive** and educationally substantial. In math and reading, there are positive impacts in each of the first four years after a student enrolls in a **KIPP** school. In science and social studies, the study measured impacts in the grade that states administered tests in these subjects (typically 8th grade), and found positive impacts three to four years after students enroll at **KIPP**. The evidence suggests that **KIPP** is among the highest-performing charter networks in the country.

### KIPP IMPACTS on School Achievement, by Subject



**Note:** For math and reading, the figure shows the impact of **KIPP** on the scores of tests taken three years after enrollment in a **KIPP** school; for science and social studies, the figure shows the impact on scores of tests taken three years after enrollment for some student cohorts and four years after enrollment for other student cohorts. The blue bar represents the mean percentile rank of **KIPP** students in the relevant analysis sample, relative to local jurisdictions. The gray bar represents this observed mean rank minus the average **KIPP** impact estimate in each subject. In all four subjects, the difference in percentiles represents an impact that is statistically significant at the 5 percent level.

### Impact on Student Behaviors and Attitudes

**KIPP** may also influence student behavior, which can be associated with long-term academic success. In terms of study habits, students enrolled in **KIPP** schools spend 35 to 53 minutes more on homework per night than they would have spent if they were in a non-**KIPP** school, for an average of over two hours of homework per night.

There was no impact on measures of student attitudes such as self control, academic self-concept, school engagement, and educational aspirations (all self-reported). There was also no impact on behavior such as illegal activities, as reported by students, or on behavior problems, as reported by parents. However, the findings suggest that enrollment in a KIPP school leads to an increase in the likelihood that students report engaging in undesirable behavior such as lying to or arguing with parents.

### Teaching to the Test?

Mathematica evaluators used a national norm-referenced assessment (the TerraNova) to test the robustness of the results found on state assessments. This test includes items designed to capture students' higher-order thinking. Estimated impacts of the TerraNova tests are consistent with the estimates found on state assessments. TerraNova results did not have consequences for students, teachers, or schools, which suggest that the positive impacts of KIPP are not a result of "teaching to the test" on the state assessments. Additionally, TerraNova results taken alongside the positive impacts in science and social studies suggest that KIPP is doing more academically than simply improving students' basic skills in reading and math.

.....  
 Evidence suggests that  
 KIPP is among the  
 highest-performing charter  
 school networks in the country.  
 .....

### KEY FINDINGS on student achievement include the following:



**MATH:** Three years after enrollment, the estimated impact of KIPP on math achievement is equivalent to moving a student from the 44th to the 58th percentile, **representing 11 months of learning** over and above what the student would have learned in three years without KIPP.



**READING:** Three years after enrollment, the estimated impact in reading is equivalent to moving a student from the 46th to 55th percentile, **representing 8 months of additional learning** growth over and above what the student would have learned in three years without KIPP.



**SCIENCE:** Three to four years after enrollment, the estimated impact in science is equivalent to moving a student from the 36th to 49th percentile, **representing 14 months of additional learning** growth over and above what the student would have learned in the three to four years without KIPP.



**SOCIAL STUDIES:** Three to four years after enrollment, the estimated impact in social studies is equivalent to moving a student from the 39th to 49th percentile, **representing 11 months of additional learning** growth over and above what the student would have learned in three to four years without KIPP.

### Noteworthy Characteristics of KIPP STUDENTS

Data on KIPP students' characteristics provide little evidence that the program enrolls only high-performing students, as some critics of charter schools claim. Students entering KIPP schools are very similar to other students in their neighborhoods: both groups are low achieving, low income, and nonwhite. Ninety-six percent are either black or Hispanic, and more than 83 percent are eligible for free or reduced-price school meals. Before enrolling in a KIPP school, the typical KIPP student scored at the 45th percentile in his or her school district in reading and math, an achievement level that is also significantly lower than both the average in the elementary schools they attended and the average in the district as a whole. In contrast, KIPP middle school students are somewhat less likely than the students at the elementary schools they attended to have received special education services (9 versus 13 percent) or to have been classified as having limited English proficiency (10 versus 15 percent).

### Student Behavior Policies Related to Achievement Gains

While most KIPP schools have significant positive impacts on student achievement, some have more positive impacts than others. One factor that distinguishes the highest-performing KIPP schools is their approach to student behavior. In schools where principals reported having a more comprehensive school-wide behavior system, KIPP's positive impact on student achievement is larger. The defining feature of these systems is that they have clearly defined and consistently implemented rewards for good behavior and consequences for negative behavior.



### FUTURE KIPP Evaluations

More research is needed to identify exactly what makes each KIPP school more or less successful than its peers. Over time, Mathematica plans to estimate the effectiveness of newer KIPP schools, including elementary and high schools. KIPP impacts will be generated separately by calendar year, allowing the study team to analyze factors that might be correlated with KIPP impacts, including principal characteristics, which change over time. As the network matures, the study team will also calculate longer-term impacts, assessing KIPP's progress toward its goal of seeing more students graduate from college.