

## Evaluation Issue Brief

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# An Impact that Lasts: KIPP Middle Schools Boost College Enrollment

The Knowledge Is Power Program (KIPP) is the largest network of public charter schools in the United States. KIPP began as a network of urban middle schools designed to serve underserved communities, with the goal of closing achievement gaps and preparing disadvantaged students to succeed in college. Prior research has demonstrated that KIPP has large positive impacts on student achievement. However, until now it has remained an open question whether these initial gains in standardized test scores will ultimately lead to improvements in students' longer-term outcomes, such as college enrollment and graduation.

This issue brief presents results of a long-term tracking study that follows 1,177 students who applied to enter 1 of 13 oversubscribed KIPP middle schools through a 5th- or 6th-grade admissions lottery in 2008 or 2009. Those students are now old enough to have attended college for at least two years. This study uses a randomized controlled trial design to ensure that students who were offered admission to a KIPP middle school (the treatment group) are similar on average to students who did not receive an offer of admission (the control group) on both observable characteristics, such as prior test scores, and unobservable characteristics, such as levels of motivation and parental support. The study focuses on two primary research questions:

1. What impact do KIPP middle schools have on students' enrollment in a four-year college?
2. What impact do KIPP middle schools have on persistence in four-year college programs during the first two years after high school graduation?

To collect information about these outcomes, we gathered data from the National Student Clearinghouse on college enrollment. Our primary results estimated the impact of an offer of admission to a KIPP middle school (intent-to-treat impacts). This approach to estimating impacts is conservative, because in our sample only 68 percent

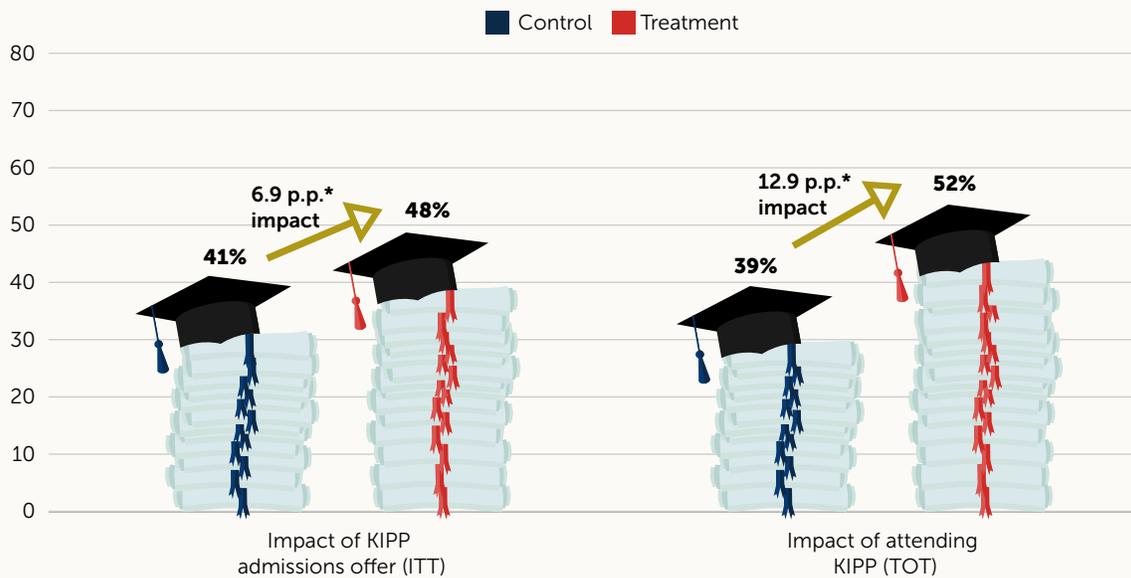
of treatment students ever attended a KIPP school, and 16 percent of control students went on to enroll at KIPP in later years as well. In an exploratory analysis, we adjusted the impact estimates to account for which students actually attended a KIPP school. These treatment-on-the-treated, or TOT, impacts involve making additional assumptions as part of the analysis, but they provide a more direct measure of the impact of attending a KIPP school.

### Findings in Brief

**KIPP middle schools had a positive and statistically significant impact on enrollment in four-year colleges.** On average, students who received a lottery-based admissions offer to a KIPP middle school were 6.9 percentage points more likely to enroll in a four-year college than students who applied to KIPP but were not offered admission. In particular, 48 percent of treatment students enrolled in a four-year college within two years of high school graduation, compared with 41 percent of control students (Figure 1).

After accounting for which students actually attended a KIPP school, the impact estimate almost doubles in size. The impact of attending a KIPP school on enrolling in a four-year college is 12.9 percentage points. The effect is statistically

**Figure 1. Impact of KIPP middle schools on four-year college enrollment**



Note: Study includes 1,177 students who applied to enter KIPP middle schools via admissions lotteries, and compares the outcomes of students offered admission to KIPP (treatment group) to those not offered admission (control group) at the time of the lottery.

p.p. = percentage points; ITT = intent-to-treat; TOT = treatment-on-the-treated

\*Impact estimate is significantly different from zero at the .05 level, two-tailed test.

\*\*Impact estimate is significantly different from zero at the .01 level, two-tailed test.

significant, and represents a meaningful change in college enrollment rates. In 2017, the national gap in college enrollment rates between white students and black or Hispanic students for any college type was approximately 14 percentage points among 20- and 21-year-olds (U.S. Census Bureau 2018). In other words, the impact of attending a KIPP school would be almost large enough to erase the nationwide racial disparity in college enrollment rates.

**However, KIPP middle schools do not have a statistically significant effect on early college persistence.** Thirty percent of students who were offered admission to a KIPP middle school ended up entering a four-year college program immediately after high school and persisting through their first four semesters, compared to 26 percent of students

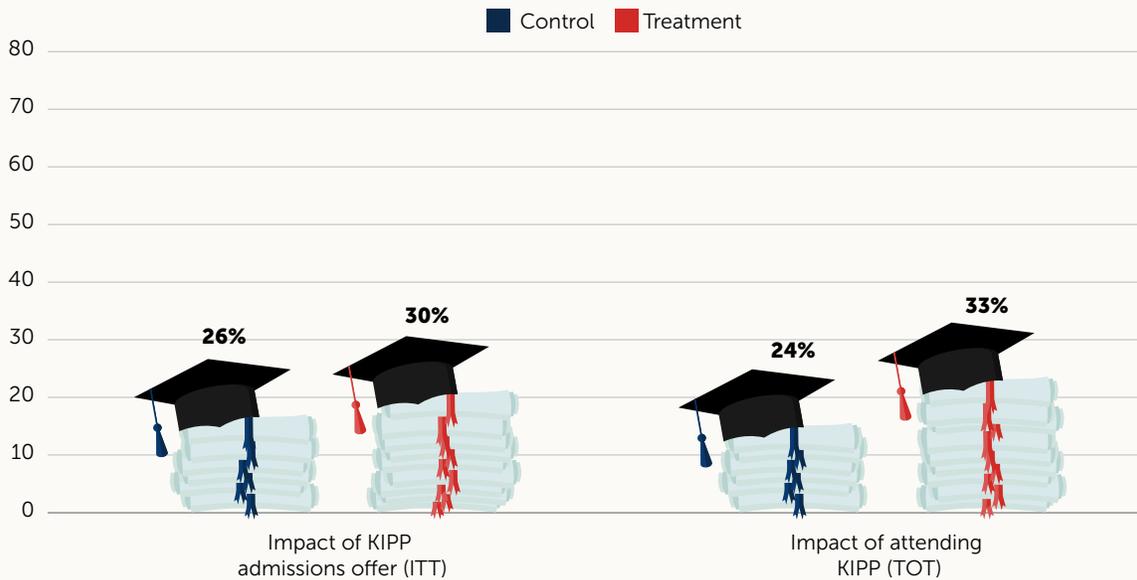
in the control group (Figure 2). Yet, the difference (4.8 percentage points) is not significantly different from zero. After adjusting for which students actually attended a KIPP school, there is a larger difference between the treatment and control group (9 percentage points) but the effect remains statistically insignificant in this sample.

**For these students, it is too early to say whether KIPP middle schools have an impact on college graduation.** The magnitude of the impact estimate for four-year college enrollment (13 percentage points) is larger than the impact estimate for the early college persistence outcome (9 percentage points). This could be due to multiple factors. The initial enrollment effect could be slightly fading out over time if students in the treatment group drop

out of four-year programs at a higher rate than students in the control group. However, it is also possible that the difference in magnitude is driven by treatment group students enrolling in college later or transferring from two-year programs to four-year programs at higher rates relative to the control group. Both of these patterns would prevent a student from persisting for a full four semesters in a four-year college during the two years following high school graduation. To fully disentangle these effects, we will need to track these students for a longer period of time and ultimately estimate impacts on college graduation.

KIPP middle schools have a lasting impact on their students, producing a positive and statistically significant impact on enrollment rates in four-year college programs. However, the study's results for measures of early college persistence are more ambiguous, and it is too early to say whether these schools also have an effect on college graduation rates. More time is needed to gain a clearer picture of KIPP's effects on college persistence and ultimately college graduation.

**Figure 2. Impact on persistence through first four semesters of a four-year college**



Note: Study includes 1,177 students who applied to enter KIPP middle schools via admissions lotteries, and compares the outcomes of students offered admission to KIPP (treatment group) to those not offered admission (control group) at the time of the lottery.

p.p. = percentage points; ITT = intent-to-treat; TOT = treatment-on-the-treated

Differences between the treatment and control groups are not statistically significant for this outcome.

## Contact

For questions, please contact Thomas Coen at [tcoen@mathematica-mpr.com](mailto:tcoen@mathematica-mpr.com). This study was carried out with a grant from Arnold Ventures.

For further information, please see Coen, Thomas, Ira Nichols-Barrer, and Philip Gleason. "Long-Term Impacts of KIPP Middle Schools on College Enrollment and Early College Persistence." Cambridge, MA: Mathematica, September 2019.

## References

U.S. Census Bureau. "School Enrollment in the United States: October 2017—Detailed Tables." December 11, 2018. Available at <https://www.census.gov/data/tables/2017/demo/school-enrollment/2017-cps.html>. Accessed August 30, 2019.

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