



Still Worth the Trip? School Busing Effects in Boston and New York

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Summary

In response to court orders in the 1970s, urban districts across the country began busing students to schools outside of their neighborhoods. Court control has since lapsed, but districts continue to bus students through district-wide choice systems. In many large urban districts, students have the option to enroll in schools far from home with transportation provided by the city or public transit.

While choice systems offer students in segregated neighborhoods access to schools that may be more integrated and of higher quality, does busing lead to improved academic performance as measured by higher test scores and college enrollment? That question is posed in a new study by MIT Blueprint Labs scholars Joshua Angrist, Guthrie Gray-Lobe, Clemence Idoux, and Parag Pathak. Specifically, [this study](#) examines causal effects of school travel on integration and academic achievement in Boston and New York City.

The study finds that students who attend schools outside their neighborhoods do indeed enjoy greater academic success, but the impact of school travel disappears after accounting for individual academic motivation and family

resources. Since such students are likely to perform better regardless of which schools they attend, their inclusion in the study results in *selection bias*. The Blueprint study eliminates selection bias by exploiting the random assignment integral to the Boston and New York public school choice processes.

The Blueprint study finds that school travel does increase racial integration. Black and Hispanic students who travel attend schools with a higher share of white and Asian students. As a result, they are less likely to attend a racially isolated school, that is, one where Black and Hispanic students exceed 90 percent of enrollment.

However, travel generates little change in test scores or college attendance. Why? The study finds that the distant schools are only slightly better, on average, than those in their neighborhood.

New York spends more than \$1 billion a year on school transportation. The Blueprint study suggests a cost-saving shift toward neighborhood schools has trade-offs: it would likely have no significant impact on educational outcomes for Black and Hispanic students but would boost integration.

Source

Angrist, J., Gray-Lobe, G., Idoux, C., Pathak, P.A., (2022): "Still Worth the Trip? School Busing Effects in Boston and New York," *MIT Blueprint Labs Discussion Paper #2022.12*.

Background and Policy Relevance

When court-mandated busing ended, many large urban districts adopted voluntary choice systems, permitting students to attend schools outside of their neighborhoods. By giving all students a chance to attend high-quality schools, the programs seek to promote both integration and academic achievement. The potential benefits come at a cost: Boston and New York have some of the highest per-student transportation expenses in the country. Thus, policymakers need to understand how modern choice systems affect integration and education outcomes.

Setting and Methods

Using data shared by the New York City Department of Education and Boston Public Schools, this study examines the effects of busing on students entering ninth grade in New York (2012–2016) and those entering sixth and ninth grades in Boston (2002–2013). In both cities, assignment decisions are based on an algorithm that takes both student and school preferences into account. The study leverages the randomization embedded in these systems. By focusing on students assigned randomly, it separates the causal impact of busing from other determinants of achievement like family background.

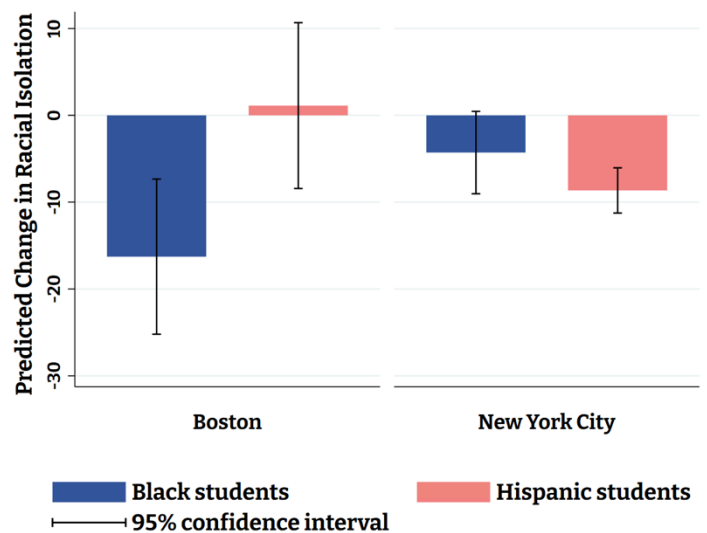
The researchers generate two measures of school travel. The first measure considers whether a student enrolls in a school outside of their neighborhood, “non-neighborhood enrollment.”

The second measure computes how long it takes a student to travel to their school.

Key finding #1: School travel boosts integration, especially for Black and Hispanic students.

Black and Hispanic students who travel have fewer classmates of their same race. In New York City, Black students who travel attend schools, on average, with 20% fewer Black students. Hispanic students who leave attend schools with 11% fewer Hispanic students. Students who travel are also less likely to attend a racially isolated school, one with Black and Hispanic enrollment of 90 percent or more (see Figure 1).

Figure 1: Effect of Travel on Racial Isolation



How to read this figure: The dark blue bar for Boston indicates that travel decreases the probability of attending a racially isolated school by 16 percentage points for Black students. Similarly, the pink bar for New York City shows that Hispanic students who travel are 9 percentage points less likely to attend a racially isolated school. As seen in the pink bar for Boston, where the 95% confidence interval straddles zero, there is no significant impact for Hispanic students in Boston.

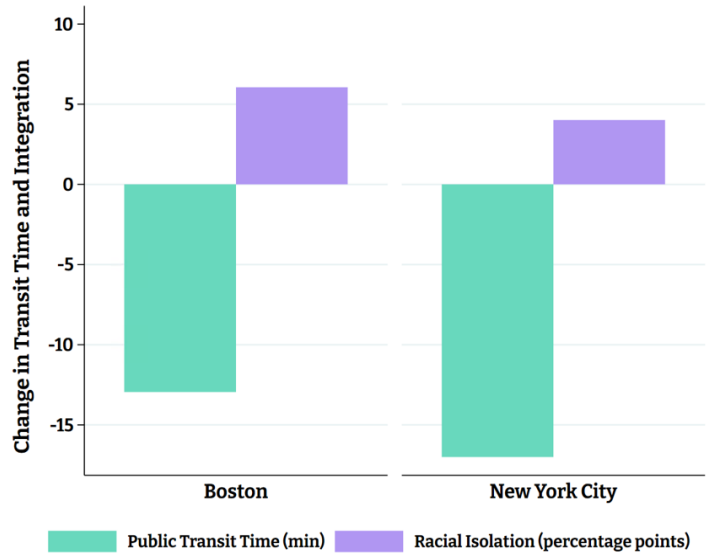
Key finding #2: School travel does not boost academic achievement.

In both cities, student enrollment in two- and four-year colleges does not significantly increase for students who travel. In Boston, students’ math and English state standardized test scores do not increase when they travel. Similarly, New York students who travel realize no significant changes in SAT scores. These results, which are consistent across demographic groups, suggest that on average students randomly assigned to a distant school do not get a better education than that offered nearby.

Key finding #3: Both cities see an increase in racial segregation when school assignment is simulated to minimize student travel.

In a simulation, the study quantifies how racial composition would change if all students were assigned to schools closest to their home. While transportation costs would fall, students would be more likely to attend racially isolated schools and schools with more peers of the same race. These effects are especially large for Black students, as shown in Figure 2.

Figure 2: Simulated Effects of Minimizing Student Travel



How to read this figure: These graphs show the impact of assigning Black students to the schools closest to their homes. In Boston, for example, their travel time would be reduced by 13 minutes (teal bar), but the likelihood of racial isolation would be 6 percentage points higher (purple bar).