**Impact of the Massachusetts School Choice Program**

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# Key Findings

The Massachusetts school choice program, in place since the early 1990s, allows parents to send their children to schools in communities other than the city or town they live in. Receiving districts determine how many students to accept, and students are enrolled by lottery. The program currently serves about 20,000 students, mainly in the western and central parts of the state.

* Districts that lose students on net to choice are more likely to have larger shares of disadvantaged students, lower test scores, and declining enrollments. Students who participate in school choice are disproportionately white, fluent English speakers, and not receiving subsidized lunch. They also have higher test scores.
* Participation in choice increases mathematics test scores by about 0.08 to 0.15 standard deviations, a fairly large impact. Evidence on impact for English language arts was mixed. These results may be driven in part by access to advanced coursework.
* Students who participate in choice may also be more likely to graduate from high school and enroll in a four-year college instead of a two-year college, but these estimates are less precise.

# Research Questions

* Which types of districts and students participate in school choice?
* What is the causal impact of participation in school choice on student outcomes?

# Data

I contacted every public school district in Massachusetts that had ever enrolled a student via school choice and requested their admissions lottery records. Many districts had never conducted a lottery (often because they had no more applicants than seats available) or had not maintained records from the lotteries they ran; others declined to share their records. Ultimately, I obtained 3,000 student level lottery records from 203 lotteries across 14 districts. I matched these data to state administrative records to obtain test score, graduation, and college enrollment records for lottery applicants.

# Research Methods

Most of my analyses rely on comparing outcomes for students who did and did not win the admissions lottery to enroll in a school choice program. Because who wins and loses a lottery is determined at random, I can disentangle the impact of the program from the impact of the fact that the students who participate in choice are typically higher performing to begin with. To account for the fact that the districts with lottery records are a limited and possibly non-representative sample, I also run similar analyses comparing students who did and did not participate in choice for all choice districts, controlling for student demographic characteristics and other factors.

# Detailed Results

* The average district that loses at least 10 students on net to school choice serves a student body that is 83% white, 43% receiving subsidized lunch, and 10% English learners, as compared to 90%, 25%, and 4% of students in the average district statewide. The average mathematics and English language arts test scores in these districts are at the 42nd and 43rd percentile statewide.
* The students who participate in choice are 92% white, 28% receiving subsidized lunch, and 2% English learners. On average, their math test scores are at the 49th percentile statewide and their ELA scores are at the 52nd percentile.
* Using the lottery records to compare lottery winners and losers, participating in choice increases student mathematics test scores by 0.16 standard deviations. This is equivalent to moving a student from the 50th to the 56th percentile. Impacts on English language arts were not statistically different from zero. By comparison, non-urban charters in Massachusetts, which serve students similar to those enrolled in school choice, have no impact on either ELA or math test scores. Results were similar in the models including all choice districts rather than just those that had maintained and shared their lottery records.
* The mechanism for the impact on test scores may be through greater access to advanced courses. Participation in choice increases enrollment in courses designated as advanced by 20% and increases enrollment in Advanced Placement courses by 14%.
* Participation in choice increases the likelihood of high school graduation by 3%; increases four-year college enrollment by 4%; and decreases two-year college enrollment by 5%. However, limited sample sizes mean that these estimates are less precise than the test score outcomes.

# Implications for Policy and Practice

Students who participate in the choice program are relatively advantaged. Yet they also benefit from their participation in the form of increased test scores, graduation rates, and four-year college enrollment—so they perform better than they would have had they stayed in their original district. Prior research in Massachusetts shows that increasing student access to effective educational programs improves results faster for those required to enroll, who are typically less advantaged, than for those who opt in. This suggests that increasing access to choice might benefit less advantaged students even more than it does the more advantaged ones now opting to participate.

The state could encourage greater access by: advertising the program more directly to less advantaged students; requiring receiving districts to provide transportation for choice students (a known factor contributing to differential enrollment in the program); and centralizing the application and lottery process to make it easier for students to find options and apply.