Summary

Almost 70 years after Brown v. Board of Education, many American school districts remain segregated by race and income. Contemporary school segregation arises in a different institutional context than it did in the 1960s and 1970s. Today, many large urban districts use centralized assignment systems in which families choose schools and schools apply admissions criteria when they are oversubscribed. Within these systems, policy makers across the country have adopted school admissions reforms aimed at curbing school segregation.

The success of these reforms depends on whether school admissions criteria or family preferences matter more in perpetuating segregation. School admissions criteria based on academics (e.g., test scores used to rank applicants) and geography (e.g., eligibility involving applicants’ home addresses) may result in less economic and/or racial diversity. Similarly, when families prefer schools closer to their homes or with classmates of similar backgrounds, schools are more homogeneous. To shed light on this question, MIT Blueprint Labs Economist Clémence Idoux (UPenn Wharton) evaluates the interplay between family preferences and school admissions policies in determining the level of segregation in New York City public middle schools.

The study first analyzes the impact of reforms aimed at promoting diversity adopted in 2019 by two districts, one in Brooklyn and the other on the Upper West Side. Both districts reduced the weight given to student achievement in middle school admissions. The study’s findings suggest that these changes resulted in less economic and racial segregation. Disadvantaged students applied to more selective schools, leading to greater integration. But the gains were partly offset by some families choosing to exit the public school system.

To evaluate the broad determinants of school segregation in New York City, simulations examine the consequences of potential city-wide admissions reforms. These simulations suggest that about half of middle school segregation stems from admissions criteria and the other half from family preferences. As for admissions criteria, academic screening accounts for 6% to 19% of city-wide school segregation, while geographic criteria account for 25% to 45%. Family choice contributes to school segregation mainly through residential segregation and preference for nearby schools, and to a lesser extent through preferences for peers of similar racial and economic backgrounds.
Background and Policy Relevance

School segregation is substantial in New York City. Across the city, 77% of Black and Hispanic students attend schools that are less than 10% white, while only 11% of white students and 43% of Asian students attend schools that are less than 10% white. The city uses a centralized system to assign students to schools. Through this system, families can rank up to 12 choices. In turn, each program ranks students according to its admissions criteria, which may be based on academics, geography, or both. About a third of programs rely on academic screening while 90% of programs use geographic screening. Based on these rankings, an algorithm assigns students to their most-preferred available choice.

In 2019, two of the city’s 32 districts, District 15 in the Northwest of Brooklyn (NWB) and District 3 in the Upper West Side (UWS), adopted admissions reforms aimed at increasing diversity in their middle schools. The NWB district eliminated academic screening, which was used by 80% of its programs. After the reform, students were admitted based on a lottery; students who were low-income, English language learners, or homeless received priority for 52% of the seats at each district school. The UWS district adopted a reform that kept academic screening but gave priority for 25% of the seats at each school to subsidized-lunch students with low academic achievement (as measured by state test scores and report-card grades).

Setting and Methods

To measure school segregation, the study constructs district-level and city-level segregation indices:

- The **district-level racial segregation index** corresponds to the difference, for a typical student, between the share of students of her racial group at her own school with that for her district overall. For example, this measure is zero when students attend schools with a composition that mirrors the population of students residing in their district.
- The **economic segregation index** is computed the same way.
- The **district-level index** is used to compare school segregation across different school districts.
- The **city-level segregation index** compares the share of a student’s schoolmates that belong to her own group with the share in the city’s full student population. For example, the measure is zero if all schools in the city enroll a student body that is perfectly representative of the city’s students.

The study uses 2015-2021 data on student enrollment, demographics, and school applications provided by the New York City Department of Education.

**Key finding #1:** Recent New York City policies that decreased academic screening reduced racial and economic school segregation.

Economic segregation declined by 27% in NWB and by 8% in UWS after the admissions reforms. The reforms had a moderate effect on racial segregation, which declined by 14% in NWB and remained stable in UWS. The difference in impact across the two districts reflects the scope of the reforms, which were greater in NWB than in UWS. Decisions to leave the public school district may have mitigated the potential impact of the reforms.
Figure 1: Evolution of School Segregation

**How to read this figure:** This figure shows changes in school segregation before and after the policy reforms in 2019. The graph on the left shows school segregation for low-income students (economic segregation) and the graph on the right shows school segregation for Black and Hispanic students (racial segregation). The solid lines reflect segregation based on where students actually enroll, whereas the dashed lines show segregation based on original student assignments.

For example, the solid red line on the left shows how student segregation of low-income students in NWB changed at their enrolled school post-reform. In 2018, NWB low-income students attended schools with an average 15 percentage points more low-income students than the NWB student population. In 2019, after the reform implementation, NWB low-income students attended schools with an average 11 percentage points more low-income students than the NWB student population. This corresponds to a decline of the economic segregation index by 0.4 points from a baseline level of 0.15, which is a decrease of 27%. The dashed red line shows how segregation at their offered school changed.

**Key finding #2:** Some student groups exited the public school system in response to the policy changes.

In both districts, white and higher-income students were 6 to 8 percentage points more likely to turn down their offered school and exit the public school system compared with previous years. The reforms had no effect on the exit rates of Black, Hispanic, Asian, and lower-income students.

Exit decisions mostly depend on the academic achievement of potential classmates. Across demographic groups, applicants offered a school where peers have a 0.1 standard deviation lower mean math proficiency rating are on average 3 percentage points more likely to exit the public school system. Their departure appears to be mostly driven by academic concerns, rather than by racial or economic factors.

**Key finding #3:** Families adapted their school applications in response to the policy changes.

Students with lower test scores, who previously were unlikely to be admitted to selective schools in these two districts, had better admissions odds after the reforms. The opposite was true for students with higher test scores. At the same time, dropping test score requirements left students less confident about getting assigned to a given school.

Recognizing that their admissions chances changed, families adjusted the list of programs in their submitted applications. On average, in the year after the reform, UWS applicants listed one additional choice. NWB applicants listed 2.6 additional choices. The difference in these magnitudes mirrors the difference in the scope of the reforms. The reforms also affected which schools applicants listed. Post-reform, lower-scoring applicants in both districts were more likely to rank a selective school first, increasing the reforms’ impact on integration.

**Key finding #4:** Citywide simulations show that removing academic screening would modestly reduce school segregation, while removing geographic screening would reduce school segregation more substantially.

Building on key findings 2 and 3, the study simulates the potential impact of different city-wide admissions reforms, accounting for how families might change their application and enrollment decisions. The first simulation
removes academic screens citywide, yielding a modest drop in citywide school segregation.

The second simulation achieves a substantial decline in segregation by dropping all academic screening as well as all geographic priorities and eligibility criteria used in admissions. Geographic criteria contribute more than academic ones to school segregation. After all selection criteria have been removed, the remaining economic and racial segregation is due to applicant preferences. Roughly half of school segregation can be attributed to selection criteria and the other half to family preferences, as seen in Figure 2.

**Figure 2: How Removing Citywide Academic and Geographic Admissions Criteria Would Affect School Segregation**

*How to read this figure:* This figure compares school racial segregation under the current policy, a simulation that removes academic screening, and a simulation that removes academic and geographic screening. For Black students, the dark blue bar shows that the segregation index is .26 under the current policy, decreases to .24 in the first simulation (purple bar), and to .11 in the second simulation (teal bar).