New York City Independent Budget Office Schools Brief

November 2021

More Equitable Access? An Examination of the City's Public **Kindergarten Admissions Process**

Summary

Beginning in the 2014-2015 school year New York City's education department centralized its kindergarten admissions process in an effort to make it more equitable. Previously, individual principals managed their own school's kindergarten admissions. While enrollment was largely based on geographic zones, acceptance of out-of-zone students was susceptible to biases. Under the centralized system, families list up to 12 school choices. Offers for a seat are generated centrally using a blind process with priority given to students living in a school's zone, or with a sibling at the school, among other reasons. Using data from the 2016-2017 school year, IBO analyzed how the process works and whether students receive access to the schools they seek. Among our findings:

- About 64 percent of children entering public kindergarten in the 2016-2017 school year did so through the centralized choice process; the remaining students attended charter schools or attended a traditional public school (including a Gifted and Talented program), but enrolled after the application period ended.
- Asian students applied through the choice process at the highest rate, 73 percent, while Black • students did so at the lowest rate, 54 percent.
- The majority of students (73 percent) were offered a seat at their first choice school.
- Across racial/ethnic groups, Black students received their first choice at the lowest rate (68 percent). Students in the remaining groups–White, Asian, and Hispanic–were offered their first choice at higher rates, ranging from 73 percent through 77 percent of the time.
- Just over one-third of students listed a school outside their zone as their first choice; Black students • applied out-of-zone at the highest rate (47 percent), Asian students at the lowest (27 percent).
- Among all students who applied to an out-of-zone school as their first choice, 29 percent received • an offer. In contrast, because priority is given to students living in the school zone, 97 percent of students who applied to their zoned school as their first choice received an offer.
- Black, Hispanic, and Asian students were more likely than White students to receive an offer to an out-of-zone, first choice school. However Black, Hispanic, and Asian students were less likely than White students to receive an offer to an out-of-zone, first choice school if it was high-performing.

While the data shows the centralized kindergarten choice process gives students access to a variety of elementary schools, IBO's study found some significant racial differences in terms of students who applied to and/or received an offer from their first-choice, out-of-zone school. These gaps in offers invite further research into school choice policies and racial disparities.



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Background on the Kindergarten Choice Process

Since the 2014-2015 school year, parents and guardians who wish to send their kindergartener to a traditional public school in New York City must apply through the Department of Education's (DOE) centralized kindergarten choice process in order to secure a spot at their preferred school. Parents and guardians can list from one to 12 elementary school of their choice for their child. They are very likely to receive an offer to one of the schools they listed, if space allows, and if the student has priority at the school. Preference is given to families living in the school zone (where applicable) and if there are siblings already attending the school. Parents apply in the winter of the year that their child turns five. A centralized process generates offers. This removes the responsibility of managing kindergarten enrollment from school staff and eliminates the possibility of personal bias or social networks influencing kindergarten offers. During this initial phase of the application process the overwhelming majority of kindergarten seats, 94.0 percent, are determined.

The city's Gifted and Talented program and charter schools have a separate admissions process. Students who apply to the Gifted and Talented program and/or charter schools can certainly also apply for a seat in a traditional public school through the kindergarten choice process. This analysis does not include data on Gifted and Talented or charter school applications. Only data from the centralized kindergarten choice process is included in this analysis.

Families typically receive an offer by mail in the spring and then can register their kindergartener at the elementary school where they receive an offer or wait to receive an offer at a school where they are waitlisted. Registration at one school does not impact a student's waitlist status at another school. (Throughout this paper when we refer to students it can be understood that parents/guardians are making decisions, as students are only four years old during the application process.) Students are added to the waitlist at any school ranked higher on their application than the choice they received. For example, if a student received his or her third choice, the student would be waitlisted at their first and second choices. Waitlist offers are made on a rolling basis by the schools themselves as space permits. Schools must follow the waitlist order of admissions priority groups (the same order in which offers are made, which will be addressed later in this brief), and offers must be assigned randomly within priority group. Everyone who applies by the deadline's application is processed at once. so there is no "first come, first serve" component to how

the waitlist is ordered. The one exception is that a late applicant, someone who applies after the on-time deadline, will be added in their priority group after the on-time applicants. This analysis includes only on-time applicants. Students will not receive an offer to an elementary school that they listed on their application if they applied solely to oversubscribed schools, meaning the school received more applications than had seats available, and/or to schools where they had a low priority level relative to other applicants. However, all students who apply by the deadline will receive an offer to a school in their district, typically their zoned school. While there is not a second round of kindergarten applications similar to the new high school choice process as of the 2020-2021 school year, the DOE will find a school for any student unable to secure a seat through the choice process.

The DOE also uses a centralized choice system at most middle schools and high schools. While similar in many ways, there are also important differences between those systems and the process used for elementary schools. The kindergarten choice process is meant to give students equitable access to schools since it is double-blind to both families and school staff and optimizes students' chances of attending a particular elementary school with respect to their priority level. Compared with middle schools and high schools, many of which have various admissions methods and programs that screen students based on a set of academic criteria, the vast majority of public elementary schools in NYC (86 percent) have a zoned admissions method. This means priority is given to students who reside in the school zone, with an emphasis on students who have a sibling at the school, which is intended to ease travel time from home to school and provide convenience to parents and guardians. In other words, at the elementary school level, geography and sibling status is the screen. Schools have capacity limits, and therefore students must participate in the central choice process to avail themselves of any geographic/sibling priority.

However, of the approximately 86,000 children enrolled in public kindergarten in the 2016-2017 school year, only 63.5 percent applied through the central choice process, with similar shares in other years. Some of the reasons why more than one third of students do not participate in the choice process include choosing to attend a charter school or entering the school system after the application period. Among the approximately 31,000 students who did not apply through the choice system, 18.4 percent enrolled in a charter school and the remainder attended a traditional public school but enrolled after the application period including those who enroll in a gifted and talented program. The students that enrolled after the application period, and who therefore did not participate in the choice process, were relatively evenly spread throughout the city's school districts.

Motivation for Study

This brief explores how the DOE's kindergarten choice process works, who participates in the process, how students exercise choice within the process, and whether the choice process gives students access to the schools they seek relative to their zoned school. Our research questions include: What is the distribution of the number and type of choices made (out-of-zone, in-zone), and by demographic group? How does school performance affect school choice? What is the distribution of offers (first choice, second choice, etc.) by demographic group, priority level and admissions method? Among students whose first choice was an out-ofzone school, what is the share of students who received an offer, and how does that differ by demographic group?

Background on Elementary School Zones

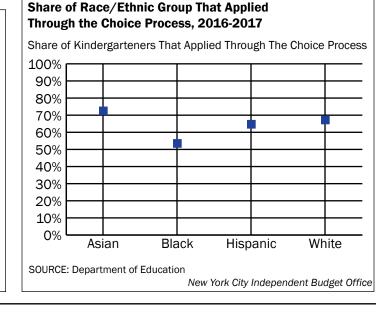
In the 2016-2017 school year, New York City had approximately 700 elementary school zones, which are small geographic boundaries in close proximity to a school. Most zones have one elementary school—90 percent of kindergarteners were zoned for one school in the 2016-17 school year—but a zone can have as many schools as is needed to accommodate the student population. Five percent of kindergarteners were zoned for two schools and less than one percent of kindergarteners were zoned for three to five schools. The remaining 3.6 percent of kindergartners lived in something called a choice district, where students are zoned for every school in the district.

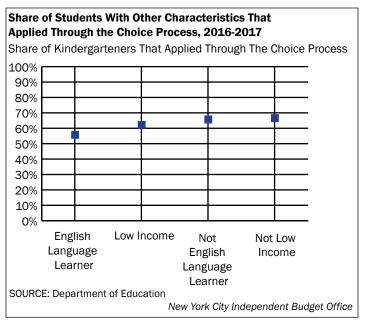
 There are three choice districts— district one (Manhattan), district seven (Bronx), and district 23 (Brooklyn).

The majority of the city's 786 elementary schools, 85.6 percent, have a zoned admissions method, which prioritizes students who live in the zone. But because students can apply to up to 12 schools anywhere in the city, by design, most students who apply to more than one school will be applying outside their zone; we refer to these applicants as out-of-zone. This includes students who live in one of the three choice districts and apply to a school outside their respective district. There are a total of 48 elementary schools in the city's three choice districts. In choice districts, students receive a high priority to all schools in that district, but are assigned different priority levels for those schools based on factors that vary by district. We will explore this in greater detail later. Similarly, there are 65 schools across the five boroughs with a non-zoned admissions method, which prioritizes students who live in the district. Offers to elementary schools, including waitlist offers, are given based on priority groups, contingent on whether the student has a sibling at the school and/or live in the school zone or district, which we will explore in more detail later.

Characteristics of Kindergarten Applicants

This study uses data on all students who applied to kindergarten at a traditional public school for entry in the 2016-2017 school year, accounting for 63.5 percent (54,622 students) of all kindergarteners in that year. Looking within racial/ethnic groups at kindergarteners in 2016-2017, Asian students applied to kindergarten through the choice process at the highest rate, 72.5 percent, while Black students applied at the lowest rate, 53.5 percent.



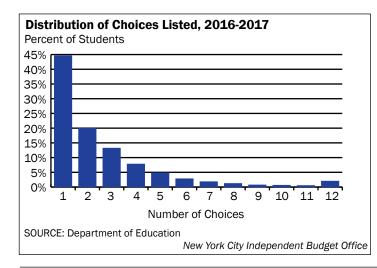


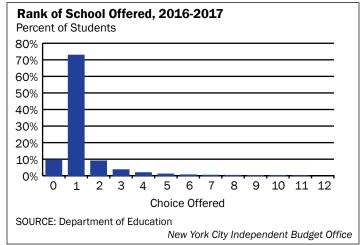
Among students of other characteristics including English Language Learner (ELL) status and low-income status, students who were not low-income applied at the highest rate, 66.6 percent, while English Language Learners applied at the lowest rate, 55.7 percent.

Background on Choices Made and Choices Offered

Students who applied to only one school comprised the largest share of applicants, 44.6 percent. One third of students, 33.1 percent, applied to two or three schools, while 22.2 percent applied to four or more.

The majority of students, 72.9 percent, were offered their first choice. Because most students received their first choice, the brief will focus on students' first choices, and examine the profile of students who received an offer. However, it is important to note that 27.1 percent of students did not receive an offer to their first choice. Among the 27.1 percent who did not receive their first





choice, 17.5 percent of students received their second through 12th choice, while 9.6 percent received an offer to a school that they did not list on their application because they applied exclusively to schools that were oversubscribed or for which they did not have a high enough priority level compared with other applicants.

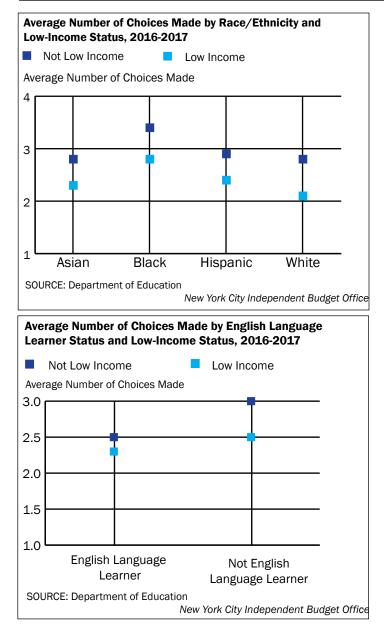
Choices Made and Offers by Student Demographics

The demographic groups we examined in this brief included students who identify as Asian, Hispanic, Black, or White; we excluded other racial/ethnic groups due to sample size. We also analyzed students based on family income and ELL status; family income is characterized as low if the student qualifies for free or reduced price lunch or if the family is eligible for income or other assistance programs managed by the Human Resources Administration. These identifiers are not mutually exclusive to race and ethnicity as students of any race/ ethnicity can be either low-income or ELL. We did not separately analyze students with disabilities because few students receive that classification before kindergarten.

Across race/ethnic groups, Black students applied to the greatest number of schools, three choices on average, and there was little difference among the number of choices by low-income status. Black students received their first choice at the lowest rate. Low-income White students applied to the fewest number of schools, 2.1 on average. Across all race/ ethnic groups, low-income students applied to fewer schools compared with students who are not low-income.

English Language Learners applied to fewer schools compared with students who are not English Language Learners, averaging 2.5 and 2.3 choices for those who are not low-income and low-income, respectively.

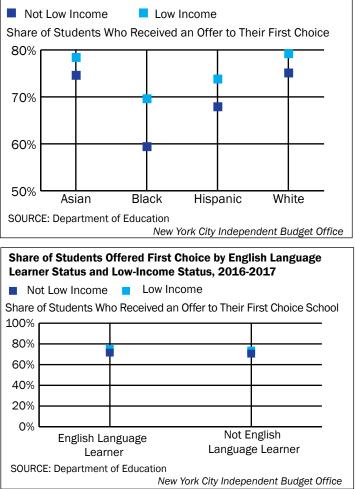
Within racial groups, Black students received their first



choice at the lowest rate (67.6 percent), whereas between 73.0 percent and 77.0 percent of students in each of the other three large racial groups were offered their first choice. Similarly, nearly three quarters of English Language Learners, 74.6, and 72.7 percent of non-English Language Learners received their first choice.

Looking at offers within low-income status, the rate at which low-income Black and Hispanic students received an offer to their first choice was 10 and six percentage points higher than their non-low-income peers, 59.4 percent and 67.9 percent compared with 69.6 percent and 73.8 percent, respectively. Low-income Asian and White students received an offer to their first choice at a rate of four percentage points higher than their non-low-income peers, 78.4 percent and 79.2 percent compared with 74.6 percent and 75.1 percent, respectively.

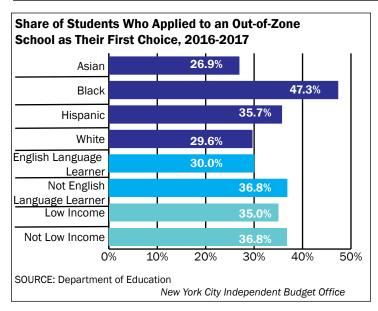
Share of Students Offered First Choice by Race/Ethnicity And Low-Income Status, 2016-2017



Low-income English Language Learners received an offer to their first choice at similar rate to low-income students of color: 75.2 percent compared with 71.6 percent of nonlow-income English Language Learners. Among non-English Language Learners, there was a three-percentage point gap between low-income students, 73.6 percent, and non-lowincome students, 70.6 percent.

Choices Made and Offers to Students Who Applied to an *Out-of-Zone* School

As the choice process enables students to apply to schools outside their zone, we looked at the share of students who applied to an out-of-zone school as their first choice to understand the degree to which students used the choice system to seek options beyond their immediate neighborhood. More than one third of students participating in the choice system, 35.6 percent, applied to an elementary school outside their zone. When looking by demographics, Black students applied out-of-zone at the highest rate: 47.3 percent. Asian students applied out-of-zone at the lowest rate: only 26.9 percent sought an out-of-zone school as their first choice.



Overall, among all students who applied to an out-of-zone school as their first choice, 29.2 percent received an offer. In contrast, 97.0 percent of students who applied to their zoned school (including students who live in and apply to a school in their respective choice district) as their first choice received an offer to that school.

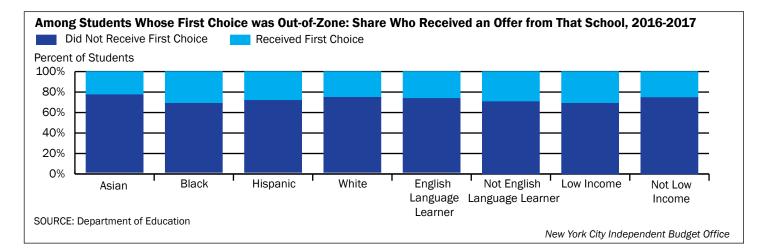
As shown earlier, we found that Black students were the least likely to receive an offer to their first choice among the major racial groups. This outcome is reversed when we look specifically at students whose first choice was an outof-zone school: Black students received their first choice at the highest rate, 32.6 percent. In comparison, less than one quarter of Asian students who applied out-of-zone received their first choice, 24.2 percent.

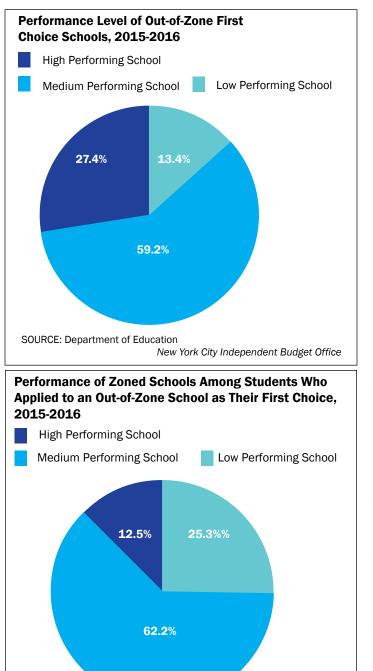
Choices Made and Offers by School Performance

To understand how school performance affects students' kindergarten choices, for each elementary school we took the average math scores and average English Language Arts (ELA) scores of fifth graders as the most representative achievement level for the elementary school grades. Separately for ELA and math scores, we categorized schools into three groups that approximate a normal distribution: the bottom 16.0 percent (161 schools), middle 68.0 percent (437 schools), and top 16.0 percent (150 schools) of the distribution. Finally, we defined high-performing schools as those that scored in the top 16.0 percent for either their average ELA or math score, medium-performing schools as those that scored in the middle 68.0 percent for both ELA and math, and low-performing schools as those that scored in the bottom 16.0 percent for either ELA or math.

We found that the breakdown of the performance level of the schools sought by students who tried to leave their zone mirrors that of students who prefer to stay in their zone. Twenty-seven percent of students who applied to a school outside their zone as their first choice sought a highperforming school; similarly, one quarter of students who applied to their zoned school as their first choice sought a high-performing school. An almost equal majority of outof-zone and in-zone applicants, (59.2 percent and 60.5 percent, respectively), sought medium-performing schools, and there was only a 1.1 percentage point difference between the share of out-of-zone and in-zone applicants who applied to low-performing schools, 13.4 percent and 14.5 percent respectively.

Applicants who applied to schools out-of-zone, however, were more likely to be zoned for low- or medium-performing schools than applicants who applied to remain in their zones. Of students choosing to apply out of zone, 25.3 percent were zoned for low-performing schools, compared with just 14.5 percent for those who chose to remain in zone. Conversely, only 12.5 percent of students opting to apply out-of-zone were zoned for high-performing schools; the schools of students who chose to remain in zone were

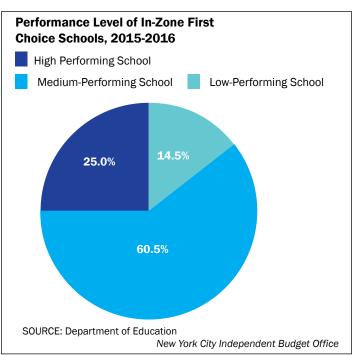






more than twice as likely to be high performing. In short, students who applied to an out-of-zone school as their first choice sought the distribution of school performance that in-zone applicants already had.

We also looked at the rate at which students received an offer to their out-of-zone first choice school relative to the performance level of their zoned school. While some students applied to out-of-zone schools with higher performance levels than their zoned school (upward



academic mobility), others applied to out-of-zone schools at the same level of performance (lateral academic mobility) or at a lower levels (downward academic mobility).

Overall, IBO found that more than half of out-of-zone applicants, 52.3 percent, ranked a school that was equal in performance to their zoned school as their first choice; of these students, 28.6 percent received an offer. More than one third of students, 36.2 percent, applied to a higherperforming school, with 27.0 percent receiving an offer. Of the remaining 11.6 percent of students, those who applied to a lower-performing school, slightly more than one third—33.8 percent—received an offer. Within each of these three scenarios (upward, lateral, and downward academic mobility) there were another three academic mobility applicant pools (nine combinations in total) for which IBO looked at the rate that students applied and received an offer.

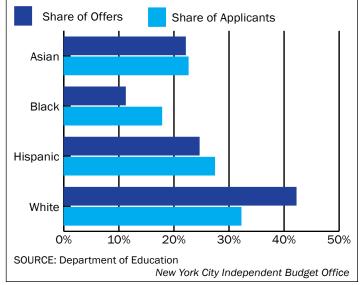
Upward Academic Mobility. Among students who applied to an out-of-zone school that was higher performing than their zoned school, 27.0 percent received an offer. The greatest academic mobility was among students who were zoned for a low-performing school and applied to a medium-performing school: more than one third of students, 37.0 percent, received an offer.

Among the roughly 2,800 students who were zoned for a low-performing school and applied to a medium-performing school out-of-zone, Hispanic students made up the largest share of the applicant pool (53.3 percent), followed by Black students (40.4 percent), Whites (3.5 percent) and Asians (2.8 percent). Offers were largely in line with each group's share of applicants. For example, Hispanic students made up 53.3 percent of applicants and received 53.2 percent of offers.

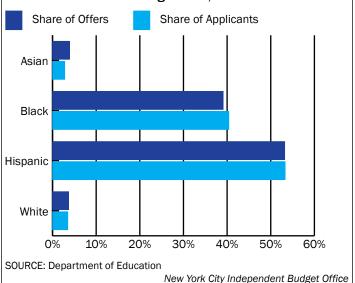
Among the students who attempted the largest school performance leap—those who were zoned for a lowperforming school and applied to a high-performing school outside their zone—a sizeable minority (almost one fifth; 19.3 percent) received an offer, though the number of students in this scenario, 550, was relatively small. Looking within the distribution of offers, Black students made up the largest share of the applicant pool (42.4 percent) followed by Hispanic (34.6 percent), White (15.2 percent) and Asian students (7.8percent). Offers were largely in line with each group's share of applicants. For example, Black students made up 42.4 percent of applicants and received 42.9 percent of offers. However, White students received offers at a slightly higher rate, 21.9 percent, than their share in the applicant pool, 15.2 percent.

Among the roughly 2,700 students who were zoned for a medium-performing school and applied to a highperforming school, an almost equal share of students as those applying from a low-performing to a high performing school received an offer, 18.4 percent. White students made up the largest share of this applicant pool (32.2 percent), followed by Hispanic (27.4 percent), Asian (22.6 percent), and Black students (17.8 percent). While offers aligned with Hispanic and Asian students' share of applicants, Black students received fewer offers (11.2 percent) and Whites received more (42.2 percent) relative to their share of applicants.

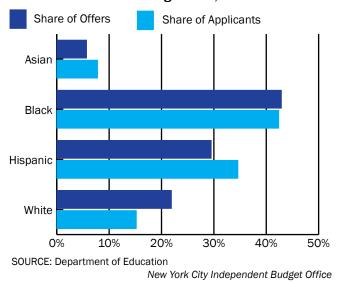
Demographic Distribution of Students Who Applied to A High-Performing Out-of-Zone School and Were Zoned for a Medium-Performing School, 2016-2017



Demographic Distribution of Students Who Applied to A Medium-Performing Out-of-Zone School and Were Zoned for a Low-Performing School, 2016-2017

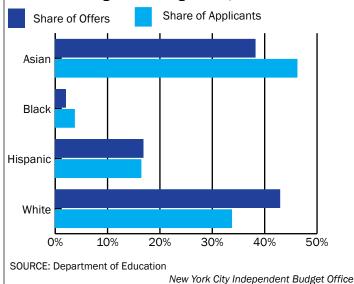


Demographic Distribution of Students Who Applied to A High-Performing Out-of-Zone School and Were Zoned for a Low-Performing School, 2016-2017

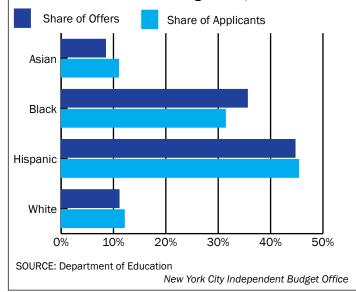


Lateral Academic Mobility. Among students who applied to an out-of-zone school from a zoned school with similar performance, 28.7 percent received an offer. For students who made a lateral choice by applying to an out-of-zone school whose performance level was the same as their zoned school, offer rates increased as the performancelevel of the out-of-zone school declined. Students who applied for a lateral transfer to a low-performing school were successful 43.9 percent of the time compared with a success rate of 28.6 percent for students applying to a medium-performing school and 16.8 percent for students applying to a high-performing school.

Demographic Distribution of Students Who Applied to A High-Performing Out-of-Zone School and Were Zoned For a Another High-Performing School, 2016-2017



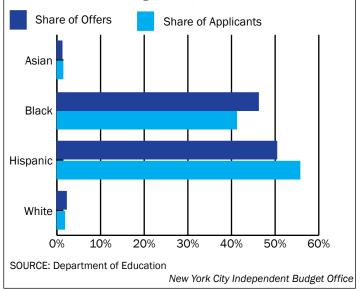
Demographic Distribution of Students Who Applied to a Medium-Performing Out-of-Zone School and Were Zoned For Another Medium-Performing School, 2016-2017



Among the roughly 1,200 students with a high-performing zoned school who applied to a high-performing out-of-zone school, 16.8 percent were successful in garnering an offer. White students made up a smaller percentage of applicants (33.7 percent) relative to Asian students (46.2 percent), yet White students were more likely to receive an offer (42.9 percent) compared with Asian students(38.3 percent). Offers to Black and Hispanic students were in line with their share of applicants.

Overall, among the roughly 6,000 students who applied for a lateral move to a medium-performing school, 28.6 percent received an offer. Hispanic students made up the

Demographic Distribution of Students Who Applied to a Low-Performing Out-of-Zone School and Were Zoned for Another Low-Performing School, 2016-2017



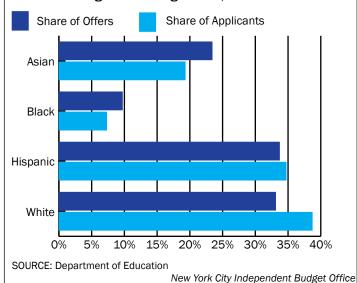
largest share of the applicant pool (45.5 percent) followed by Black (31.4 percent), White (12.1 percent), and Asian students (11.0 percent). Offers were generally in line with the share of applicants.

The offer rate among the less than 1,000 students who made a lateral move to a low-performing school was much higher: 43.9 percent. The demographic shares of applicants followed the same pattern as those who applied to medium-performing schools and offers were in line with the share of applicants.

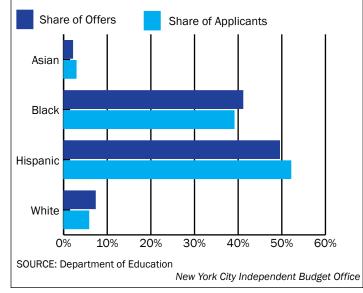
Downward Academic Mobility. Among students who applied out of zone to a lower-performing school than their zoned school, more than one third received an offer. Students who applied to an out-of-zone school whose performance level was lower than that of their zoned school had the greatest chance of receiving an offer among all outof-zone applicants: 33.9 percent received an offer overall.

More specifically, 40.9 percent of students who applied to a low-performing school and were zoned for a high-performing school received an offer. Yet this scenario was rare: less than 50 students opted for such a move—therefore we do not display this graphically. The differences in offer rates by demographics were negligible. In contrast, more than 600 students who were zoned for a high-performing school applied to medium-performing school (28.8 percent received an offer) and more than 1,200 students who were zoned for a medium-performing school applied to a low-performing school (more than one third, 36.3 percent, received an offer).

Demographic Distribution of Students Who Applied to a Medium-Performing Out-of-Zone School and Were Zoned For a High-Performing School, 2016-2017



Demographic Distribution of Students Who Applied to a Low-Performing Out-of-Zone School and Were Zoned for A Medium-Performing School, 2016-2017



In terms of the pattern of offers by student demographics, among the roughly 600 students who applied to a mediumperforming school and were zoned for a high-performing school, White students comprised the largest share of the applicant pool (38.7 percent), followed by Hispanic students (34.7 percent), Asian (19.3 percent), and Black students (7.3 percent). Offers were generally proportionate to the share of applicants.

Among the roughly 1,200 students who applied to a lowperforming school and were zoned for a medium-performing school, Hispanic students comprised the largest share of the applicant pool (52.1 percent), followed by Black students (39.1 percent), White (5.8 percent), and Asian students (2.9 percent). Offers aligned with the share of applicants.

Summary of Academic Mobility. Overall, the share of offers that out-of-zone applicants received declined modestly as the performance level of their school of choice increased. Over half of out-of-zone applicants ranked a school that was equal in performance to their zoned school as their first choice and nearly 30 percent received an offer. More than one third of students applied to a higher-performing school, with 27.0 percent receiving an offer. Of the remaining 11.4 percent of students, those who applied to a lower-performing school, just over one third received an offer.

When taking into account applications and offers by student race/ethnicity, IBO found Black and Hispanic students comprised the largest share of out-of-zone applicants for all three types of school performance: lateral, upward, and downward. Offers generally aligned with the share of applicants. However, White students zoned for medium-performing schools received a disproportionately larger share of offers to high-performing out-of-zone schools relative to Black students, and White students zoned for high-performing schools received a disproportionately larger share of offers to high-performing out-of-zone schools relative to State students, and white students zoned for high-performing schools received a disproportionately larger share of offers to high-performing out-of-zone schools relative to Asian students.

Priority Groups for Offers to Kindergarten by Admission Method of the School

The central choice system New York City uses for kindergarten admissions exhausts each higher priority from the applicant pool before moving to the next priority group. However, not every school has every priority level; for example, some schools do not have a pre-K program. For schools that admit students based on zones, the priority groups are students who:

- 1. Reside in the school's zone **with** a verified sibling enrolled at the school;
- Reside in the school's zone without a verified sibling enrolled at the school;
- Reside in the district with a verified sibling enrolled at the school;
- 4. Reside outside the district **with** a verified sibling enrolled at the school;
- 5. Reside in the district **and** are currently enrolled at the school for pre-K; and
- 6. Reside outside the district **and** are currently enrolled at the school for pre-K.

For schools that do not admit students based on zones,

instead giving priority to students who live in the district, the priority groups are students who:

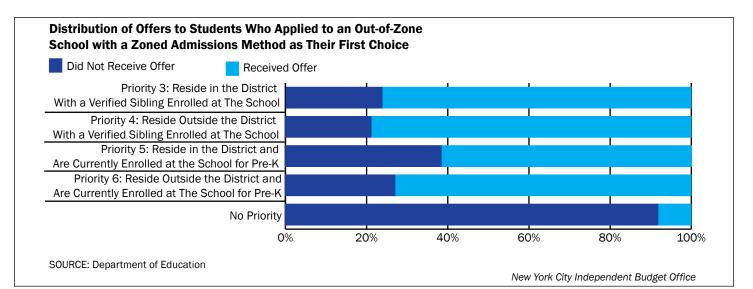
- Reside in the district with a verified sibling enrolled at the school;
- 2. Reside outside the district **with** a verified sibling enrolled at the school;
- Reside in the district **and** currently attend the school for pre-K;
- 4. Reside outside the district **and** currently attend the school for pre-K; and
- 5. Reside in the district.

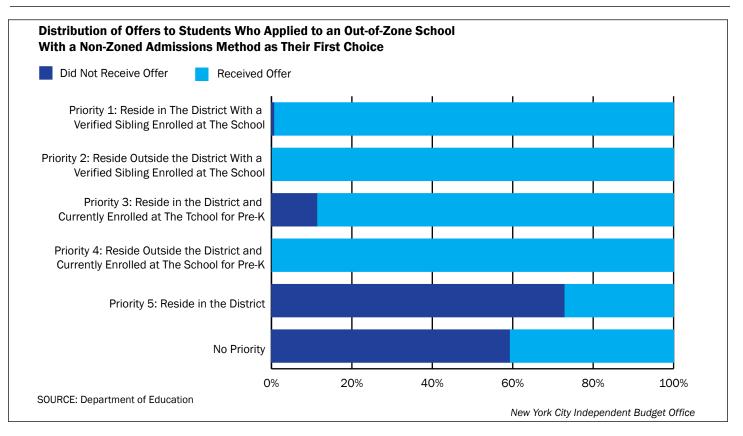
Choices Made and Offers by Priority Level and Admissions Method

A student's priority level for each school to which he/she applied will be different based on the whether a school is a zoned school, a non-zoned school, or if the school is in a choice district. It is important to note that none of the out-of-zone students who apply to schools with a zoned admissions method can have first or second priority, which is reserved for students who live in the zone. The highest priority they can be assigned is third.

Overall, among the roughly 19,300 students who applied to an out-of-zone school as their first choice, 71.6 percent applied to schools with zoned admissions, 25.9 percent applied to schools with non-zoned admissions, and only 2.6 percent applied to schools in choice districts. Although the majority of students who applied to an out-of-zone school as their first choice applied to a school with a zoned admissions method, those who applied to a non-zoned school as their first choice had the greatest chance of receiving an offer. IBO examined priority levels of students who applied to an out-of-zone school as their first choice separately for two of the three different admissions methods: zoned and non-zoned admissions. (Students who applied to schools in choice districts were excluded due to the small sample size, but an analysis of offers to these students is available in the Appendix.)

Since offers are distributed by priority level, it is reasonable to expect that as the priority level increases (that is, as students have less priority for admission to the school), a smaller share of students would receive an offer. When we looked at the distribution of offers by student priority level among students who applied to an out-of-zone school with a zoned admissions method, Priority 4 students (who reside outside the district with a sibling at the school) had the highest offer rate (78.9 percent) compared with 76.3 percent of priority 3 students (who reside in the district with a sibling at the school), though their shares are very similar. The main reason why students who reside outside the district with a sibling at their preferred out-of-zone school received an offer at a slightly higher rate than students who reside in the district is merely due to the seats available at specific schools. Similarly, a larger share of priority 6 students received offers, 73.0 percent, compared with priority 5 students, 61.7 percent. This is merely a reflection of the number of seats available after seats are assigned to applicants in the zone. Students who had no priority level for the out-of-zone school they applied to had the lowest rate of offers; only 8.2 percent received an offer to those schools. Yet they comprised the largest share of applicants to out-of-zone schools with a zoned admission method, almost 64 percent. On the other end of the spectrum, the smallest applicant pool was priority 6 students; only 3.5 percent of students who applied to an out-of-zone school with a zoned admission method were in this priority group, yet 73.0 percent received an offer.





All students who apply to a school with a non-zoned admissions method are considered out-of-zone, as nonzoned schools do not prioritize students who live in any particular zone. Among students who apply to an out-of-zone school as their first choice, those who apply to a school with a non-zoned admissions method have a greater chance of receiving an offer compared with those who apply to a school with a zoned admissions method since zoned schools-by definition-reserve seats for students living within the zone. Virtually 100 percent of students who were priority 1, 2 or 4-students who have a sibling at the school or are enrolled in the school for pre-K regardless of whether they live in the district-receive an offer. Of the students who live in the district and had no other connection to the school, 72.8 percent did not receive an offer. Students who live in the district comprised the largest share of applicants to nonzoned schools, 61.3 percent.

Using Regression Analysis to Understand Which Factors Were Associated with Applying to an Out-of-Zone School

In this brief, IBO has documented a number of different factors that may influence a family's decision to designate an out-of-zone school as their first choice. To understand which of these factors are more strongly correlated with applying to an out-of-zone school, we use a multivariate regression framework. Our analysis follows the literature in using a logistic regression because our outcome variables are binary—meaning they have discreet values of either 0 (the student did not apply to a school outside their zone) or 1 (the student applied to a school outside their zone).

At the student level, the independent variables we modeled include ethnicity, English Language Learner (ELL) status, and low-income status. We additionally considered interactions between student ethnicity and low-income status, student ethnicity and ELL status, student ELL status and lowincome status, and ethnicity and whether the student had a sibling at their first choice out-of-zone school; only the latter two were statistically significant. At the school level, the independent variables we modeled include whether students had a high-performing school in their zone, whether students had a sibling at their zoned school, and the distance students lived from the nearest high-performing school. These school-level variables control for factors that we expect to reduce a student's likelihood of applying to an outof-zone school independent of the student's demographic and socioeconomic characteristics, though we also included an interaction between distance and student ethnicity to account for the possibility that distance to school has a different impact across demographic groups.

Results: Factors Associated with Applying Out-of-Zone.

Black students were 1.4 times as likely to apply to an outof-zone school as their first choice compared with White students, and if they had a sibling at their out-of-zone first choice school they were eight times as likely to apply compared with White students who had a sibling at their outof-zone first choice school. Hispanic and Asian students were both 0.9 times as likely to apply out-of-zone (or 10 percent less likely), but if they had a sibling at their out-of-zone first choice school they were 10.9 and 11.6 times as likely to apply compared with White students. For every additional tenth of a mile an Asian student lived from a high-performing school, that student's chance of applying outside their zone was less likely (0.8 times as likely) compared with White students who lived the same distance away. Distance from a high-performing school was not associated with the odds of applying out-of-zone for Black or Hispanic students. Overall for every additional tenth of a mile that any student lived from a high-performing school, they were 0.9 times as likely to apply out-of-zone or 10 percent less likely.

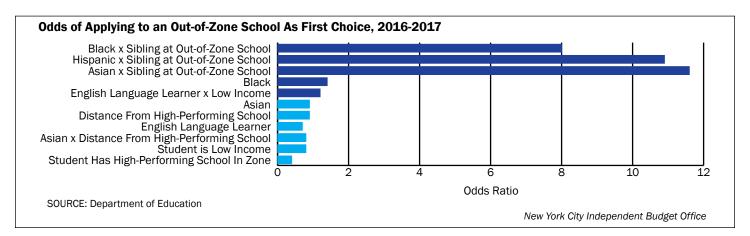
Students who were zoned for a high-performing school were 0.4 times as likely to apply to an out-of-zone school or 60 percent less likely compared with students who were not zoned for a high-performing school. Students who were also less likely to apply to an out-of-zone school as their first choice were ELL students and low-income students, 0.7 and 0.8 times as likely, or 30 percent and 20 percent less likely. Conversely, ELL students who were low-income were more likely to apply to an out-of-zone school as their first choice, 1.2 times as likely, compared with ELL students who were not low-income.

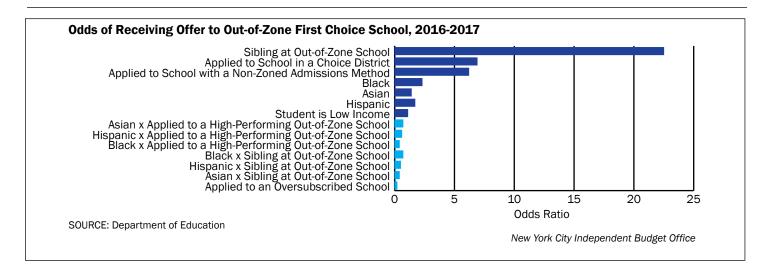
Using Regression Analysis to Understand Which Factors Were Associated with Receiving An Offer to an Out-of-Zone School

We also tested factors that may be associated with whether students receive an offer to their first choice out-of-zone school, controlling for design features of the choice process. These features include the prevention of over-subscribed schools, priority for students who have a sibling at the school, and whether the school had a nonzoned admissions policy or was located in a choice district, which eliminates the necessity to live in the designated school zone. The independent variables we included on the student level are ethnicity, ELL status, and low-income status. We additionally considered interactions between student ethnicity and low-income status, student ethnicity and ELL status, and student ethnicity and whether the student had a sibling at their first choice out-of-zone school; only the latter was statistically significant.

The variables we modeled on the school level include whether the student's out-of-zone first choice school was high-performing, whether the school had a nonzoned admissions method, whether the school was oversubscribed, and whether the school was in a choice district. We also interacted whether the student's first choice out-of-zone school was high-performing with student low-income status and whether the student's first choice out-of-zone school was high-performing with ethnicity; only the latter was statistically significant.

Results: Factors Associated with Receiving an Offer to an Out-of-zone School. Out-of-zone students who had a sibling at their first choice school were the group most likely to receive an offer, 22.5 times as likely as zoned students who did not have a sibling at their first choice school, which is not surprising because the choice system prioritizes applicants who apply to schools where they have a sibling. Out-of-zone students who applied to a school in a choice district were 6.9 times as likely to receive an offer as out-of-zone students who applied to a school that was not in a choice district. Similarly, out-of-zone students who applied to a school with a non-zoned admissions method were 6.2 times as likely to receive an offer compared with students who applied to other out-of-zone schools. Black, Hispanic, and Asian students were more likely to receive an offer to their out-of-zone first choice school; Black students were 2.3 times as likely, Hispanic students were 1.7 times as likely,





and Asian students were 1.4 times as likely compared with White students. Low-income students were also 1.1 times more likely to receive an offer to their out-of-zone first choice school compared with students who were not low-income.

Conversely, when we look at students who applied to a high-performing out-of-zone school (schools whose average fifth grade test scores were in the top of the distribution) as their first choice, Black, Hispanic, and Asian students were less likely to receive an offer compared with White students. Black students were 0.4 times as likely, or 60 percent less likely, and Hispanic and Asian students were 0.6 times and 0.7 times as likely, or 40 percent and 30 percent less likely to receive an offer than White students who applied to a high-performing school. Although overall students applying to a high-performing out-of-zone school were slightly less likely to receive an offer than students who apply to an out-of-zone school that is not high performing, the difference is not statistically significant. The slightly lower likelihood of receiving an offer to a highperforming school overall is explicable in that these are sought-after schools, particularly by students in the zone, and thus seats are limited for out-of-zone students. Black, Hispanic, and Asian students who apply to an out-of-zone school as their first choice are also less likely to receive an offer if they had a sibling at the school, 0.7, 0.5, and 0.4 times as likely, respectively, compared with White students who had a sibling at the school. Lastly, students who applied to an oversubscribed out-of-zone school as their first choice were least likely to receive an offer to an out-ofzone school, 0.2 times as likely or 80 percent less likely.

Conclusions

Among all kindergarteners in 2016-2017, Asian students applied to kindergarten through the choice process at the

highest rate, nearly 73 percent, while English Language Learners and Black students applied at the lowest rates, roughly 56 and 54 percent, respectively. Black students who are not low-income applied to the greatest number of schools. Low-income White students applied to the fewest number of schools; and overall low-income students applied to fewer schools compared with students who are not low-income. Though students have the option to apply to up to 12 elementary schools, students who applied to only one school comprised the largest share of applicants, almost 45 percent.

Because the majority of students, nearly 73 percent, were offered their first choice, our analysis focused on students' first choices and examined the profile of students who received an offer. Within ethnic groups, Black students received their first choice at the lowest rate (approximately 68 percent), while students in each of the other three large ethnic groups were offered their first choice roughly 73 percent to 77 percent of the time. Low-income students from all of the major race/ethnic groups received their first choice at a higher rate compared with their non-low income peers.

In terms of out-of-zone applications, system wide, more than one third of students, nearly 36 percent, applied to an out-of-zone school as their first choice and nearly 29 percent of those students received an offer. Black students, students who are not low-income, and students who are not English Language Learners were the groups most likely to apply to an out-of-zone school as their first choice (nearly 47 percent for Black students and nearly 37 percent for students who are not low-income, and approximately 37 percent for non-English Language Learners). Asian students were least likely to apply out-ofzone (roughly 27 percent). Black students were statistically significantly more likely to apply to an out-of-zone school as their first choice compared with White students. When comparing English Language Learners by low-income status, low-income ELLs were statistically significantly more likely to apply to an out-of-zone school as their first choice compared with ELLs who are not low-income.

Applying to a school in a choice district presents the greatest opportunity for leaving one's zone as these students were 7 times as likely to receive an offer compared with students who applied outside their zone to a school with a zoned admissions method. Students with a sibling at their out-of-zone first choice school were the group most likely to receive an offer, though the pattern reverses for Black, Hispanic, and Asian students who were less likely to receive an offer compared with White students who had a sibling at their out-of-zone first choice school. Looking by demographics, Black, Hispanic, Asian and lowincome students were more likely to receive an offer to their out-of-zone first choice school, though Black, Hispanic, and Asian students were less likely to receive an offer to an out-of-zone first choice school if it was high-performing. This outcome is more nuanced when we examine offers by the performance level of students' zoned schools relative to that of their out-of-zone first choice. When taking into account applications and offers by student race/ethnicity. IBO found Black and Hispanic students comprised the largest share of out-of-zone applicants to all three levels of

school performance: lateral, upward, and downward. Offers generally aligned with the share of applicants. However, White students zoned for medium-performing schools received a disproportionately larger share of offers to highperforming out-of-zone schools relative to Black students, and White students zoned for high-performing schools received a disproportionately larger share of offers to highperforming out-of-zone schools relative to Asian students.

The data shows that the kindergarten choice process gives students access to a wide variety of elementary schools across the city. As our study found some significant racial differences in terms of students who applied to and/ or received an offer from their first-choice out-of-zone school, it is possible that the choice process may reduce isolation of student demographic groups in particular schools. Yet gaps in offers by student demographics invite further research into impediments to school choice that perpetuate racial disparities.

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Appendix

Offers by Priority Levels For Students Who Reside in Choice Districts (1, 7, and 23)

Out-of-zone students who applied to a school in choice districts 1, 7 and 23 have similar rates of offers, particularly districts 1 and 23, whose schools have a comparable a priority structure. For students who applied to schools in either district 1 or 23, all students received an offer if they lived outside the district with a sibling at the school or were currently enrolled at the school for pre-K. For both districts 1 and 23, the majority of students who reside outside the district did not receive an offer, 73.0 percent and 58.6 percent of applicants, respectively. The largest share of out-of-zone applicants for districts 1 and 23, 48.5 percent and 46.8 percent respectively, lived outside the district, which had the lowest priority (level 7).

Out-of-zone students who applied to a school in district 7 have a similar pattern of offers and applicants, but have a different priority structure. Schools in district 7 are the only schools in the public system in which out-of-zone students can have priority over in-zone students because those who reside in the opposite portion of the district than the school to which they apply are technically out-of-zone. Therefore, a student who resides in the other portion of the district but has a sibling enrolled at the school is out-of-zone, but has priority 2, above priority 4 and priority 7 students who reside in the same portion of the district as the school to which they are apply. Priority 7 students are in-zone students but have one of the lowest priority levels of all applicants. Recall the priority levels for students who apply to a school in district 7:

- 1. Reside in school's portion of District 7 **with** a verified sibling enrolled at the school;
- 2. Reside in the other portion of District 7 **with** a verified sibling enrolled at the school (out-of-zone;)
- 3. Reside outside District 7 **with** a verified sibling enrolled at the school (out-of-zone);
- 4. Reside in the school's portion of District 7 **and** are currently enrolled at the school for pre-K;
- Reside in the other portion of District 7 and are currently enrolled at the school for pre-K (out-of-zone);
- Reside outside District 7 and are currently enrolled at the school for pre-K (out-of-zone);
- 7. Reside in the school's portion of District 7;
- 8. Reside in the other portion of District 7 (out-of-zone); and
- 9. Reside outside District 7 (out-of-zone)

All out-of-zone students who apply to school in district 7 as their first choice receive an offer if they are currently enrolled at the school for pre-K, priority levels 5 and 6. Nearly 79 percent of out-of-zone students who reside in the other part of the district (category 8) receive an offer. Only those students who reside outside the district, the lowest priority level, are not inclined to receive an offer, nearly 63 percent do not receive an offer yet these students comprise the largest applicant pool.

