

Public pre-K boosted test taking for gifted and talented programs

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Attending public preschool is linked to an increase in students taking the admissions test for gifted and talented programs, reducing the disparity in test taking between disadvantaged students and their peers, finds a study of New York City students by NYU's Steinhardt School of Culture, Education, and Human Development.

The findings, published in the current issue of *Educational Researcher*, suggest that public pre-K can help bridge the gap in gifted and talented [test](#) taking by providing families and students greater access to information about the gifted and talented programs and admissions tests.

The New York City Department of Education created gifted and talented programs for elementary school children in 2005, providing accelerated and rigorous instruction for students with exceptional learning potential. Students fill out applications and take admissions tests starting in pre-K, as programs begin as early as kindergarten.

"One answer to fostering academic equity among high achievers is the public availability of challenging educational programs across all ethnic and social class backgrounds," said study author Sharon L. Weinberg, professor of applied statistics and psychology at NYU Steinhardt.

However, studies have found substantial inequalities in gifted and talented programs. As of 2011, roughly 70 percent of New York City public school students were Black and Latino, while more than 70 percent of kindergartners in gifted and talented programs were White or

Asian.

To better understand this disparity, the NYU researchers looked at the rates that students took the admissions test for gifted and talented programs. They analyzed nearly 70,000 school records for students in district-based traditional public kindergarten in New York City in 2009, and linked the records to demographic information and neighborhood characteristics. Approximately 37.5 percent of kindergartners had attended part-time public pre-K the year before, and 18.7 percent attended full-time public pre-K.

The researchers found that compared to students who did not attend public pre-K, the odds of taking the test were 4.8 times higher for full-time public pre-K students, and 3 times higher for part-time students.

Not only did they find that students in public pre-K were significantly more likely to take the gifted and talented test, regardless of demographic background, but they also found that attending public pre-K may play an important role in helping to reduce test-taking disparities among different groups of children. While Black and Latino preschoolers took the admissions test at substantially lower rates than their White and Asian counterparts, the gap was significantly less for those enrolled in public pre-K programs.

Beyond bridging the gap, demographic and socioeconomic factors influenced the likelihood of students taking the gifted and talented admissions test. Key findings include:

- Compared to White students, Latino students were 45 percent less likely to take the test, Black students were 35 percent less likely, and Asian students were 32 percent more likely.
- English language learners were 62 percent less likely to take the test.

- Students who received free lunch were 46 percent less likely to take the test.
- Students were 3.7 percent less likely to take the test for every month younger they were, suggesting that the youngest students were 40 percent less likely to take the test than the oldest students in the same grade.
- Students living in Manhattan had the highest test-taking rate, followed by Brooklyn, the Bronx, Queens, and Staten Island.
- Poorer neighborhoods (defined by residents receiving public housing assistance) were associated with lower likelihood for taking the test, while more affluent neighborhoods (defined by residents with college degrees) were linked to higher odds of taking the test.

"Among all of the variables we analyzed, whether a student attends a public pre-K program is the strongest predictor of whether the student takes the gifted and talented test. The length of daily exposure to pre-K also matters, with full-time pre-K students having an even higher test taking rate than part-time students," said Ying Lu, assistant professor of applied statistics at NYU Steinhardt and the study's lead author.

The researchers noted that the students in the study were kindergartners in 2009, several years before the de Blasio administration introduced universal pre-K in 2014, expanding access to public pre-K for the city's four-year-olds. From additional analyses of data based on more recent years, they continue to find public pre-K attendance to be correlated with a boost in gifted and talented test taking.

"Because our findings strongly suggest that attending public pre-K helps to promote information access and test taking for gifted and talented programs, with the advent of universal pre-K, the New York City Department of Education has an even greater chance to provide information about public educational opportunities to many more

children across all demographic subgroups," said Weinberg.

"There is a compelling need to create public awareness of educational opportunities to ensure that [students](#) from all backgrounds have access to them," Lu added.

Although their study employs statistically rigorous methods of analysis, the researchers caution that their results are based on observational data. As a follow-up, they plan to conduct a randomized control study to focus on causal links between [public](#) pre-K attendance and gifted and talented test taking.

Provided by New York University

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