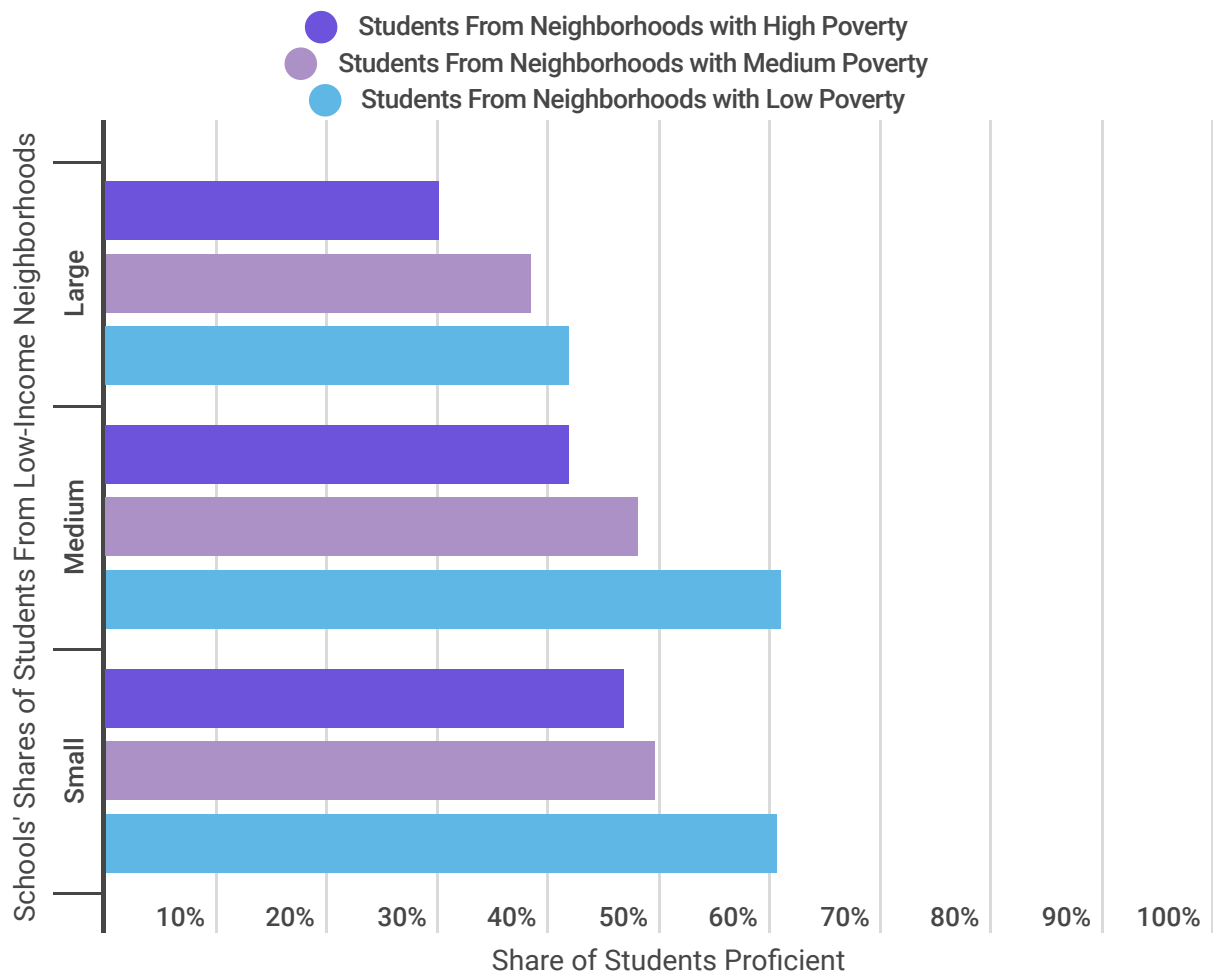


What Impact Does the Concentration of Students from Low-Income Neighborhoods in Schools Have on Student Achievement? How Much Does the Poverty Level of a Student's Own Neighborhood Matter?

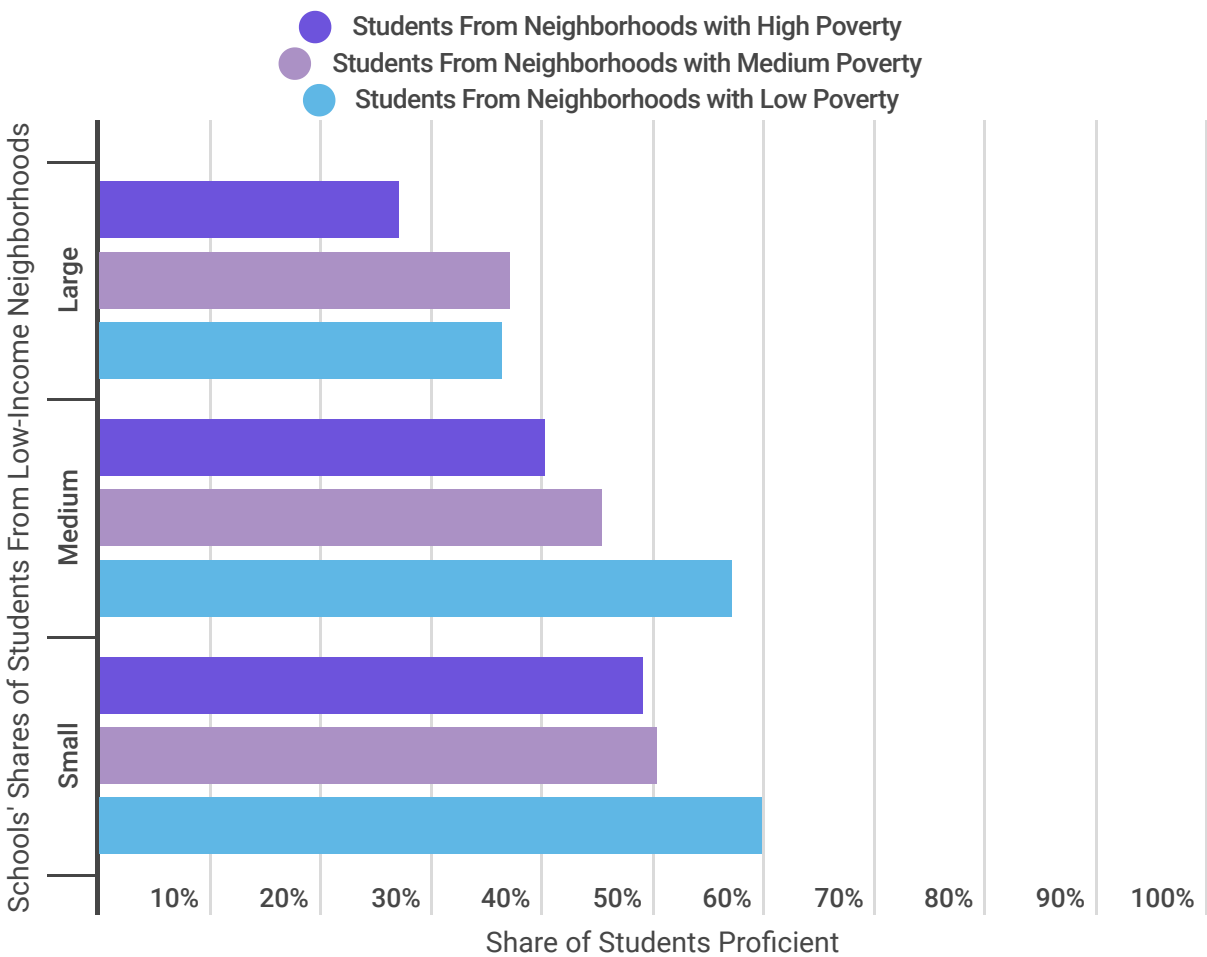
As part of our recent [Education Indicators](#), IBO sought to better understand the relationship between concentrations of poverty and student achievement in New York City's public elementary and middle schools.¹ IBO does not have access to detailed data on students' household incomes, however, we do have information about where students live. Using the income level of each student's home census tract (referred to as their neighborhood), we classified students into one of three groups: students from low-poverty neighborhoods, medium-poverty neighborhoods, or high-poverty neighborhoods. (Our measure of poverty is based on the Mayor's Office of Economic Opportunity's local poverty threshold, which was \$35,044 for a family of four in 2019.) Details on how we established each group can be found [here](#).

We then examined the share of students at individual schools who live in low-income neighborhoods, again defined as having a median household income of \$35,044 or below. We divided the city's elementary and middle schools into three equal groups. Schools with the smallest shares had from 0 percent to 3 percent of students from low-income neighborhoods. Schools with medium shares had from 3 percent to 33 percent from low-income neighborhoods, and schools with the largest shares had from 33 percent to 98 percent of students from low-income neighborhoods. Using both the student-level and the school-level income groupings, we analyzed differences in achievement, as measured by proficiency rates on New York State standardized English Language Arts and Math tests given in third through eighth grades during the 2018-2019 school year.

English Language Arts Proficiency Rates by Student Neighborhood Poverty Level and Schools' Shares of Students From Low-Income Neighborhoods



Math Proficiency Rates by Student Neighborhood Poverty Level and Schools' Shares of Students From Low-Income Neighborhoods



Overall, we found for both ELA and Math, proficiency rates were lower among students who attended schools with large shares of low-income students—regardless of their own neighborhood income status. As schools' shares of students from low-income neighborhoods declined, proficiency rates generally rose among students from each neighborhood poverty level both for ELA and for Math.

A student's own neighborhood poverty level does appear to matter, however. In each school grouping, proficiency rates were generally higher for students who live in less poor neighborhoods. For example, among all students who attend schools with large shares of students from low-income neighborhoods, students that live in a low-poverty neighborhoods have proficiency rates for both ELA and Math that are 10-12 percentage points higher than students living in high-poverty neighborhoods.

But the concentration of low-income students in schools may matter more: among students who attend schools with small shares of students from low-income neighborhoods, a greater share of students who come from *high-poverty* neighborhoods were proficient in ELA (46.8 percent) than their peers who come from *low-poverty* neighborhoods and attend schools with large shares of students from low-income neighborhoods (41.8 percent).

The difference is even greater for Math proficiency rates: nearly half of students who come from high-poverty neighborhoods and attend schools with fewer students from low-income neighborhoods were proficient, compared with just over 36 percent of their peers from low-poverty neighborhoods who attend schools with large shares of students from low-income neighborhoods.

These trends demonstrates the relationship between attending a school with more concentrated poverty in which more students may be dealing with chronic stressors, sometimes referred to as peer effects, and academic outcomes.²

Print version available here.

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Endnotes

¹IBO examined these trends separately for both traditional public schools and the city's charter schools. We also looked at trends at the high school level (using Regents scores) for traditional public schools and charters. The results presented here are for the city's traditional, elementary/middle public schools only. Results for charter elementary and high schools, as well as traditional public high schools are available [here](#).

²Borman, G. D., & Dowling, M. (2010). Schools and Inequality: A Multilevel Analysis of Coleman's Equality of Educational Opportunity Data. *Teachers College Record: The Voice of Scholarship in Education*, 112(5), 1201–1246. <https://doi.org/10.1177/016146811011200507>



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