New York City Independent Budget Office

Director Louisa Chafee

Education

Improved Teacher Allocations Across School Districts but Disparities Continue: Fair Student Funding at Full Implementation

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Executive Summary

The 2021-2022 school year marked the first year of New York City's full implementation of the Fair Student Funding (FSF) formula. By that year, all New York City public schools received at least 100% of the FSF allocation to reflect different educational needs across the schools as determined by the formula. While IBO reports found in 2007 and 2013 that the new system improved funding equity across schools based on student need, as the formula intended, there has been less known about the ability to use those funds to hire more teachers, or more experienced teachers, across schools.

In this report, IBO examined variations in the number of teachers and teacher characteristics across schools weighted as higher- or lower-need, as determined by the FSF formula. IBO analyzed whether schools with additional weighted enrollment employed additional teachers, measured by schools' pupil-to-teacher ratio, and employed teachers with additional qualifications, measured by education level, experience, and salary. To address these questions, IBO analyzed student-, teacher-, and school-level data from the New York City Department of Education (DOE) and the New York State Education Department (NYSED) from the 2021-2022 school year, when the FSF system began full implementation.

The FSF formula aimed to increase support for students with additional needs. In this report, IBO found that by the 2021-2022 school year, the formula had succeeded in providing additional funds to schools with higher student needs. However, despite these improvements in funding, disparities in teacher qualifications persisted between higher- and lower-need middle schools for general education teachers, and for special education teachers at all school levels. The findings continue to point out middle schools' challenges with the formula's funding, as the previous IBO report (2013) also found.

- Higher-need schools—those with larger weighted enrollment as determined by the FSF formula—received substantially more FSF allocations per pupil, compared with lower-need schools.
- Across grade levels, higher-need schools had smaller pupil-to-teacher ratios for general education teachers.
- While higher-need middle schools had less-experienced and lower-paid general education teachers relative to lower-need middle schools, there were no substantial disparities in teacher experience and salary between higher- and lower-need elementary and high schools.
- In general, special education teachers were less experienced and lower paid relative to general education teachers.
- Across grade levels, higher-need schools had less-experienced and lower-paid special education teachers relative to lower-need schools. However, pupil-to-teacher ratios for special education teachers were similar between higher- and lower-need schools.

Although this report does not explore the impact on student outcomes, the findings on disparities in teacher qualifications, measured by experience and salary, raise questions about potential impacts. Existing research has demonstrated a positive relationship between teaching experience and student performance. The findings also suggest the FSF model alone may not be enough to achieve the full intent of the FSF reform—to provide additional support to students with additional needs. This report concludes with a discussion of policy implications for the state's new class size rule.

Introduction

First introduced in 2007-2008, the Fair Student Funding (FSF) formula—which applies to schools in Districts 1 through 32—intends to allocate discretionary funds equitably to schools with higher educational needs. A school's FSF allocation (entitlement) derives from multiplying a per pupil base allocation ($4,223 in school year 2021-2022) by the school's weighted student enrollment, a count of students adjusted by student needs factors such as grade level, academic achievement, English language learner status, special education status, and specialty focus for high schools. See IBO's FSF explainer for more details.

In this report, IBO investigated a logic model underpinning the FSF formula: the FSF model directs additional funds to higher-need schools, whose principals could then use those extra funds to hire additional teachers with improved qualifications (see Figure 1). These changes would ultimately lead to improvements in students' academic performance based on the accumulated evidence that teacher experience is positively related to student achievement.[1] This report examined the first two links of this logic model: By 2021-2022, did higher-need schools receive additional funds and did those additional funds lead to any improvements in staffing gaps between higher and lower-need schools?[2]

Background

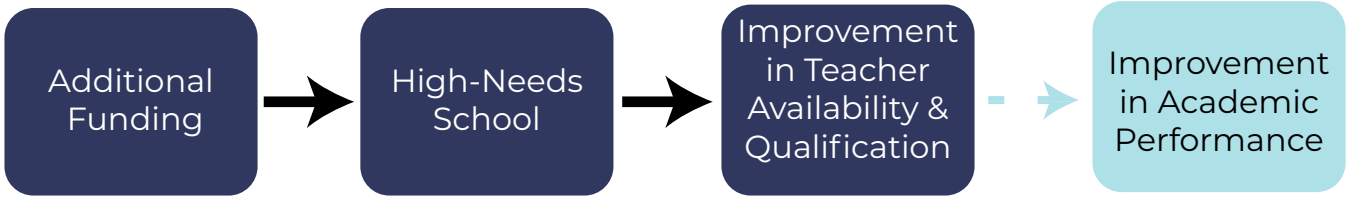
History of Disparities in Teacher Qualifications and Policy Reforms

Before the adoption of the Fair Student Funding (FSF) formula in 2007-2008, prior research consistently observed that schools with larger shares of higher-need students were likely to have fewer experienced and educated teachers (measured by attainment of a Master's degree), while those schools employed relatively more teachers per pupil.[3] These findings suggest higher-need schools face obstacles to attract relatively higher-qualified teachers.

Researchers have explored potential reasons for these disparities. First, before the adoption of the FSF formula, New York City used a traditional method to distribute school-level funds, known as staff-based budgeting, which did not systemically consider variation in educational

FIGURE 1

A Logic Model of FSF:
Additional Funding Would Lead Higher-Need Schools to Hire Additional Teachers with Higher Qualifications and Improve Students' Academic Performance



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needs among schools. This method funded an expected number of staff positions for each school, calculated from desired pupil-to-teacher ratio and average teacher salary. Under this method, schools with the same enrollment could receive similar allocations if their teacher compositions were similar, regardless of the different educational needs within their student bodies. Second, prior to 2004-2005 school year, there was a seniority-based transfer policy that gave senior teachers priority in the application process. Voluntary transfer or excess teachers—those who were no longer needed at their current schools—could replace less-experienced teachers in the process. Senior teachers were more likely to prefer lower-need schools and, therefore, get priority at those schools. As a result, even if higher-need schools had extra resources, their principals were more likely to hire less experienced teachers, who, even if they preferred lower-need schools, would lose out to more senior teachers. [4]

To address these problems, in 2005 the Bloomberg administration negotiated a new contract that eliminated the seniority policy.[5] Further, in 2007 the administration adopted a new budgeting method whereby schools receive a FSF allocation determined by a per pupil base allocation, multiplied by a school's predicted enrollment and weighted by educational need factors. DOE sets the base allocation and student need weights each year. Weights consider students' past academic performance, poverty status, English Language Learner (ELL) status, special education services, and high school portfolio status (if schools have a specialized focus), including career and technical education (CTE), and specialized high schools. For more on the FSF formula, see IBO's FSF explainer. The FSF system allows school principals discretion to use the funds as they see fit, with collaboration from the School Leadership Team (SLT) of teachers, staff, and parents who help with school planning. This new budgeting method and the removal of a seniority-based teacher transfer policy opened a new era in which higher-need schools could receive extra funding and use that extra money to meet their needs, including hiring more teachers, especially those with more experience.

Phase-in and Full Implementation of the FSF

Although first adopted in 2007-2008, for many years DOE could only partially implement the FSF model. First, due to insufficient City and State revenue, DOE could not allocate the full amounts of FSF as the new formula determined. The Great Recession, which began in December 2007, overlapped with the first year of FSF implementation and caused substantial funding reductions from City and State revenue sources. While federal stimulus funds through the American Recovery and Reinvestment Act (2009) helped address these fiscal challenges, the funds were insufficient to avoid general budget cuts across New York City during this time.[6] DOE did not receive additional state funding, despite the court order mandating full funding in Campaign for Fiscal Equity v. State of New York. While the initial order required the state to provide an additional $5.6 billion in operating funds to DOE within four years after school year 2005-2006, the funding was delayed during the recession.

Second, DOE implemented the formula with two phase-in provisions at the beginning. The first provision, named hold-harmless, was devised to avoid sharp budget cuts in some schools. These schools could maintain their previous year's budget if their FSF allocations were lower than their prior budgets. The second provision set funding caps for the other schools that expected additional funding through the new formula. Those schools received about 55

percent of the extra funding calculated by the formula, or up to $400,000 per school. While DOE eliminated the phase-in provisions in 2011-2012, schools did not receive the total amounts determined by the formula until 2021-2022.

Despite these fiscal constraints and phase-in provisions, DOE has continued to increase the FSF level that schools receive. In the 2021-2022 school year, DOE fully implemented the FSF model, coinciding with additional funding from the full implementation of the State's Foundation Aid formula.[7] Since then, schools have received 100% of their FSF entitlement amount.

Evidence of Funding Equity in New York City

Two previous IBO reports (in 2007 and in 2013) have shown an improvement in funding equity across New York City schools after the adoption of the FSF formula, despite its phased-in implementation. IBO found that, in the first year of FSF funding, 693 schools (out of 1,396 schools) increased their budgets from the prior year by an average of $158,703, even though those schools did not receive the full FSF amounts due to the funding cap provision.[8] The other 661 schools maintained the prior year's budgets under the hold-harmless provision. IBO also assessed the first five years of FSF implementation and found that the funding gaps between schools decreased, despite the fiscal challenges caused by the recession and insufficient revenue for full FSF implementation.[9] Although these IBO reports suggested an improvement in funding equity as the FSF formula intended, the impact of funding equity on key determinants of student success, such as teacher qualifications, has not been assessed.

Methods

Data

This study examined schools within Districts 1 through 32 funded through FSF in the 2021-2022 school year. Data was collected from school-, student-, and teacher-level DOE data and publicly available school-level data from the New York State Education Department (NYSED). After merging multiple datasets and cleaning extreme outliers regarding outcome variables (six schools or 0.5% of total schools), the study's sample includes 1,291 schools: 655 elementary, 255 middle, and 381 high schools. IBO excluded 224 schools with mixed grades, such as those serving Kindergarten through 8th grade, to compare schools with similar grade structures. Thus, in this sample, all schools studied serve exclusively one level of grades (for elementary schools, Kindergarten to 5th grade; for middle schools, 6th grade to 8th grade; and high schools, 9th to 12th grades).

Measuring Equity with a School Needs Index.

To compare schools by the level of educational needs funded by the FSF formula, IBO constructed a "School Needs Index" by dividing the difference between actual and weighted enrollment by actual enrollment in a school. This index measures the percent change from actual to weighted enrollment as determined by the FSF formula. Schools with high values along this School Needs Index have more students with FSF-identified educational needs. IBO used DOE Fair Student Funding data for this enrollment information.

This report defines the higher- and lower-need schools as follows:

- Higher-need schools are schools within the fourth quartile of IBO's School Needs Index; these schools have the largest percent change from actual to weighted enrollment. For example, an elementary school with 100 students may enroll students receiving additional ELL and special education services. The FSF formula counts those students with additional weights, so the school's weighted enrollment might be greater, such as 120. The IBO School Needs Index measures the school's educational needs as 0.2 or 20% from (120 - 100) / 100. In other words, the FSF system produces a weighted enrollment 20% higher than the actual student enrollment.
- Lower-need schools are schools within the first quartile of IBO's School Needs Index; these schools have the lowest percent change from actual to weighted enrollment. For example, an elementary school may enroll 100 students, who have no additional education needs, as defined by the FSF weights. The school's weighted enrollment is the same as its actual enrollment. In this case, the IBO School Needs Index is zero.

Measuring Teacher Availability and Qualifications.

IBO examined teacher availability and teacher qualifications across higher-need and lower-need schools. IBO relied upon a measure for teacher availability: the school's pupil-to-teacher ratio. The pupil-to-teacher ratio was constructed at the school-level, dividing the total number of enrolled students by the total number of active teachers in each school. Two separate ratios for general and special education were used in this analysis. To examine teacher qualifications, IBO identified the share of teachers with less than three years of teaching experience, the share of teachers with at least a master's degree, and each school's average teacher salary. All measures were constructed at the school level.

Education-level variables for Master's and beyond were collected from the NYSED Personnel Master File (PMF) data. The other variables for the ratio, teaching experience and average salary, were collected from DOE pedagogue data. In this data, IBO identified active teachers assigned at schools based on New York City Personnel Management System (PMS) status, title codes, and school-based indicators.

This analysis examined all measures at the elementary, middle, and high school level. When possible, IBO distinguished within these measures by general or special education teachers, including for years of teaching experience, average salary, and pupil-to-teacher ratio.

Higher-Need Schools Received Additional Per Pupil FSF Funding

Based on IBO's School Needs Index, IBO found that the fully implemented FSF system weighted enrollment in higher-need elementary, middle, and high schools by 59%, 93%, and 96%, respectively, on average (see Figure 2). The grade weights for middle and high schools (1.08 and 1.03, respectively) are larger than elementary schools (1.00) to reflect higher educational needs, and so the larger grade weights could cause the larger Index and funding level compared with elementary schools.[10] It could also be the case that additional

FIGURE 2

Schools with Higher School Needs Index Have Substantially More FSF Allocation Per Pupil

	Elementary School		Middle School		High School	
	Lower-need	Higher-need	Lower-need	Higher-need	Lower-need	Higher-need
School Needs Index	0.27	0.59	0.44	0.93	0.37	0.96
FSF Per Pupil	$7,714	$9,619	$8,338	$11,820	$7,859	$11,959

SOURCE: IBO analysis of DOE Fair Student Funding data

NOTE: FSF per pupil was calculated by dividing total FSF allocation (the sum of foundation, entitlement, and collective bargaining components) by actual registers. This table shows the average School Needs Index and the average per pupil FSF by the school groups.

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weights for portfolio high schools led to the larger values of weights and FSF in high schools. The differences in the average index between higher- and lower-need schools are more pronounced at higher grade levels.[11]

Higher-need elementary, middle, and high schools received $1,905 (or 24.7%), $3,482 (or 41.8%), and $4,100 (or 52.2%) FSF per pupil more, respectively, than their lower-need counterpart schools, on average. The spread of students' educational needs and per pupil FSF was greatest in higher-need high schools, followed by higher-need middle and elementary schools. Scatter plots in Figure 1A visually confirm the positive relationship and variance between the School Need Index and FSF per pupil.

How Did Schools Differ in General Education Teachers Along the Schools Needs Index?

After analyzing the teacher distribution across the selected schools in 2021-2022, IBO found that higher-need middle schools have less experienced and lower-paid teachers than lower-need middle schools, while elementary and high schools do not show substantial disparities, as seen in Figure 3. IBO found that higher-need schools at all school levels have smaller pupil-to-teacher ratios than lower-need schools and that there are no substantial gaps in education levels regarding Master's degrees. The finding suggests that the full implementation of FSF represents a narrowing of teacher disparities in elementary and high schools relative to the pre-FSF era, but disparities in middle schools persist.

On the School-Level, Higher-Need Schools Had Smaller Pupil-to-Teacher Ratios

IBO found a strong relationship between the School Needs Index and the pupil-to-teacher ratio at all school levels (see Figure 2A). On average, higher-need elementary, middle, and high schools have fewer students per teacher in general education than lower-need schools by about four, six, and seven students, respectively (see Figure 3).[12] This difference is most noticeable at high schools, followed by middle and elementary schools. These findings suggest that schools with larger FSF allocations were able to employ more teachers than

FIGURE 3

While Pupil-To-Teacher Ratios Were Smaller In Higher-Need Schools At All Grade Levels, Higher-Need Middle Schools Had Less Experienced Teachers than Lower-Need Middle Schools.

	Elementary School		Middle School		High School	
	Lower-need	Higher-need	Lower-need	Higher-need	Lower-need	Higher-need
Pupil-to-Teacher Ratio(General Education)	14.2	10.3	15.6	10.0	17.9	10.8
Share of Teachers with At Least Master's Degree*	94%	93%	94%	93%	94%	93%
Share of Teachers with Less Than Three Years' Experience (General Education)	12%	12%	13%	19%	13%	11%
Average Teacher Salary (General Education)	$99,517	$100,628	$97,837	$95,046	$98,168	$99,125

SOURCE: IBO analysis of DOE and NYSED data

NOTE: * This variable represents both general and special education teachers at the school level.

The education-level data doesn't distinguish teachers by the general and special education. This table presents average of each measure by the school groups.

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lower-need schools. Although it is not the direct focus of this report, school size could be a factor in hiring additional teachers since in larger schools, a principal's purchasing power is higher given the FSF's per-pupil allocation.

Which Teachers Worked at Higher-Need Schools?

IBO found that there were disparities in teaching experience among middle schools by need, compared with elementary and high schools (see Figure 3). On average, 19% of general education teachers in higher-need middle schools had less than three years of teaching experience, a share 6 percentage points (or 46%) greater than the average for lower-need middle schools. Figure 3A highlights how the pattern in the middle schools differs from those in elementary and high schools.

Regarding teachers' education level, there were no substantial differences in the share of teachers with Master's degree across all levels of schools (see Figure 3).[13] On average, over 93% of higher- and lower-need teachers held a Master's degree across all school levels, and the difference between higher- and lower-need schools was only one percentage point. This finding likely follows the New York State rule that requires teachers to obtain a Master's degree within five years after their initial certification. Regardless of changes in school funding, the State policy likely led to this general pattern in education level across schools.

Overall, these findings suggest improvement in teacher experience in higher-need

elementary and high schools and continued disparities in teacher experience in middle schools. Despite the full amount of FSF allocation from the formula and school-level discretion, it appears that higher-need middle schools still face difficulties hiring and retaining experienced teachers in general education.

Similarly, Higher-Need Middle Schools Had Lower Paid Teachers

Average teacher salaries for general education teachers in middle schools differed along the School Needs Index (see Figure 4A). The average salary in higher-need middle schools was $95,046 (see Figure 3), which is lower than lower-need schools by $2,791 or 3%. Unlike middle schools, the average teacher salaries of higher-need elementary and high schools are $1,111 (or 1%) and $957 (or 1%) greater than those of lower-need counterparts, respectively.

These results are consistent with IBO's findings regarding education level and teaching experience. The salary schedule for New York City teachers—negotiated between the City's Office of Labor Relations and the United Federation of Teachers—depends upon teachers' education and years of experience.[14] Given the state requirement to earn a Master's degree and the salary schedule, the differences in teaching experience observed could determine the variation in average teacher salaries across schools.

During the 2021-2022 school year, higher-need elementary and high schools hired and retained additional qualified teachers under the full implementation of the FSF. In contrast, though higher-need middle schools were able to hire more teachers per pupil, they were not able to similarly employ teachers with more years of experience than lower-need middle schools.

Did These Trends Hold for Special Education Teachers?

IBO examined special education teachers separately and found that the patterns in teacher qualification and availability differ from those in general education (see Figure 4). .

Special Education Teachers Were Less Experienced and Lower Paid Than General Education Teachers

When comparing general and special education teachers, schools regardless of need weights generally had higher shares of less-experienced special education teachers with lower average salaries at all grade levels than general education teachers. The shares of less-experienced special education teachers in higher-need schools (19% in elementary, 31% in middle, and 24% in high schools) were greater than in general education (12%, 19%, and 11%, respectively). Following this pattern, the average salaries of higher-need schools in special education ($92,103, $86,174, and $87,827) were smaller than the salaries in general education ($100,628, $95,046, and $99,125). In a prior report, IBO noted an increase in the hiring of new special education teachers from school year 2015-2016 through 2022-2023, a trend that may influence this pattern across schools.

FIGURE 4

Higher-Need Schools Had Less-Experienced and Lower-Paid Special Education Teachers Relative To Lower-Need Schools At All Grade Levels, While the Pupil-To-Teacher Ratios Were Similar To Lower-Need Schools.

	Elementary School		Middle School		High School	
	Lower-need	Higher-need	Lower-need	Higher-need	Lower-need	Higher-need
Share of Teachers with Less Than Three Years' Experience (Special Education)	18%	19%	18%	31%	23%	24%
Average Teacher Salary (Special Education)	$93,849	$92,103	$91,122	$86,174	$88,448	$87,827
Pupil-to-Teacher Ratio (Special Education)	4.1	5.3	6.5	5.9	5.8	5.2

SOURCE: IBO analysis of DOE and NYSED data

NOTE: This table shows the average of each variable by the school groups.

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Higher-Need Schools Had Less-Experienced and Lower-Paid Special Education Teachers Across All Grade Levels

IBO found that higher-need schools had less experienced special education teachers than lower-need schools at all grade levels (see Figure 4). Although the differences were small in elementary and high schools, there was a substantial gap in middle schools. On average, 31% of special education teachers in higher-need middle schools had less than three years of teaching experience, 13 percentage points (or 72%) greater than lower-need middle schools. Following these differences in experience, average salaries for special education teachers in higher-need schools were lower than those within lower-need schools at all school levels.

Higher-Need Schools Had Similar Availability of Special Education Teachers as Lower-Need Schools

Compared to the ratio patterns in general education, the pupil-to-teacher ratios in special education were relatively similar between higher and lower-need schools, with a difference of less than one student per teacher within middle and high schools. Higher-need elementary schools had about five students per teacher on average, about one student more than the ratio within lower-need elementary schools. These small variations likely reflect citywide regulations on special education class size in accordance with federal law (the Individuals with Disabilities Education Act). Class sizes are guided by pupil-to-teacher ratios outlined within students' individualized education plans, such as a self-contained class that serves only students with disabilities.

Overall, these findings suggest that even with full FSF funding, disparities in years of special education teacher experience between higher- and lower-need schools persist, especially at the middle school level. Further investigation is needed to explore how higher-need schools,

particularly those with a larger proportion of special education students, have utilized the additional resources provided through the FSF formula.

Conclusion

Under the full implementation of FSF during the 2021-2022 school year, higher-need elementary and high schools employed additional teachers with qualifications similar or even higher than those of lower-need schools. Compared with the disparities observed before the adoption of the FSF formula, these findings suggest improvement under the FSF system.

However, higher-need middle schools still hired less-experienced and lower-paid teachers, even after the full implementation of FSF funding. While IBO found that higher-need middle schools tend to have more teachers per pupil, those teachers had fewer years of teaching experience than those at lower-need middle schools. Given that the FSF formula includes a larger weight for grades 6 to 8 (1.08) compared with weights for grades K to 5 (1.00) and grades 9 to 12 (1.03), policies intended to attract experienced teachers to higher-need middle schools should consider the limitations of FSF funding, as currently designed.

IBO's findings on special education teachers raise questions about the ability of schools to hire teachers with additional qualifications, even after full implementation of the FSF model. Unlike general education, there were less experienced and lower-paid special education teachers in higher-need schools at all school levels, and there were no differences in the pupil-to-teacher ratios between higher and lower-need schools. Policymakers might look to policy levers outside of the FSF formula to improve equity in years of experience across schools for special education teachers.

These findings would have impacts on students' educational outcomes given evidence that teaching experience is positively associated with students' educational outcomes. The observed disparities in teaching experience raise concerns about potential adverse impacts on educational outcome in higher-need middle schools and for special education students in higher-need schools.[15] The ultimate goals for improving educational outcomes in higher-need schools—as shown in the logic model in Figure 1—theoretically might not be achieved with less-experienced teachers compared with lower-need schools.

Lastly, IBO's findings may indicate additional challenges ahead as DOE implements the 2022 State class size law. When California introduced a state-wide class size reduction law in 1996, teachers in economically disadvantaged communities moved to schools with few low-income students to follow new positions created by the law.[16] As a result, disadvantaged students became more likely to learn from newly hired and less-experienced teachers. New York City's ongoing implementation of the State class size law should consider how its rollout might exacerbate existing inequities in the distribution of teachers across higher- and lower-need schools.

Appendix

What is Fair Student Funding (FSF)?

Before the adoption of the FSF formula, DOE used a staff-based budgeting model to calculate the largest portion of funding in school budgets.[17] The FSF model replaced this program allocation in 2007. The staff-based budgeting model determined individual school budgets by the number of staff positions, which DOE set as the districtwide desired goal for pupil-to-teacher ratio, and by average salary.[18] By design, this budgeting method did not consider the differential costs associated with student educational needs.[19] To overcome this problem, the FSF system uses a weighted funding formula as below:

Fair Student Funding Allocation

=Foundation ($255,000)+Collective Bargaining+

(Per Capita×Student Needs Weights),[20]

where the Foundation amount is a set amount intended to cover the salaries of school administrators, and the Collective Bargaining reflects adjustments to salaries as dictated by collective bargaining contracts. The last component uses a weighted school enrollment (derived from student needs weights), which considers various educational costs associated with students by grade level, academic achievement, English Language Learner status, special education classification, and high school portfolio types.[20] During the 2023-2024 school year, DOE added new weights for students in temporary housing and for schools with high concentrations of student need (see IBO's report analyzing these changes). By multiplying the weighted enrollment and per-pupil base allocation based on the average citywide cost per student, this formula creates variation in the city-funded portion of school budgets based on differential education costs. Principals, in consultation with School Leadership Teams (SLTs), have discretion to use FSF funds as they see fit. Most often, principals allocate FSF funds towards teacher salaries.

Appendix Figures 1A through 4A show the distribution of all schools by their respective School Needs Index against: FSF per pupil funding, pupil-to-teacher ratio, the share of less experienced teachers, and average teacher salary by the school levels.

FIGURE 1 A

Higher-Need Schools Received More Fair Student Funding Per Pupil Than Lower-Need Schools

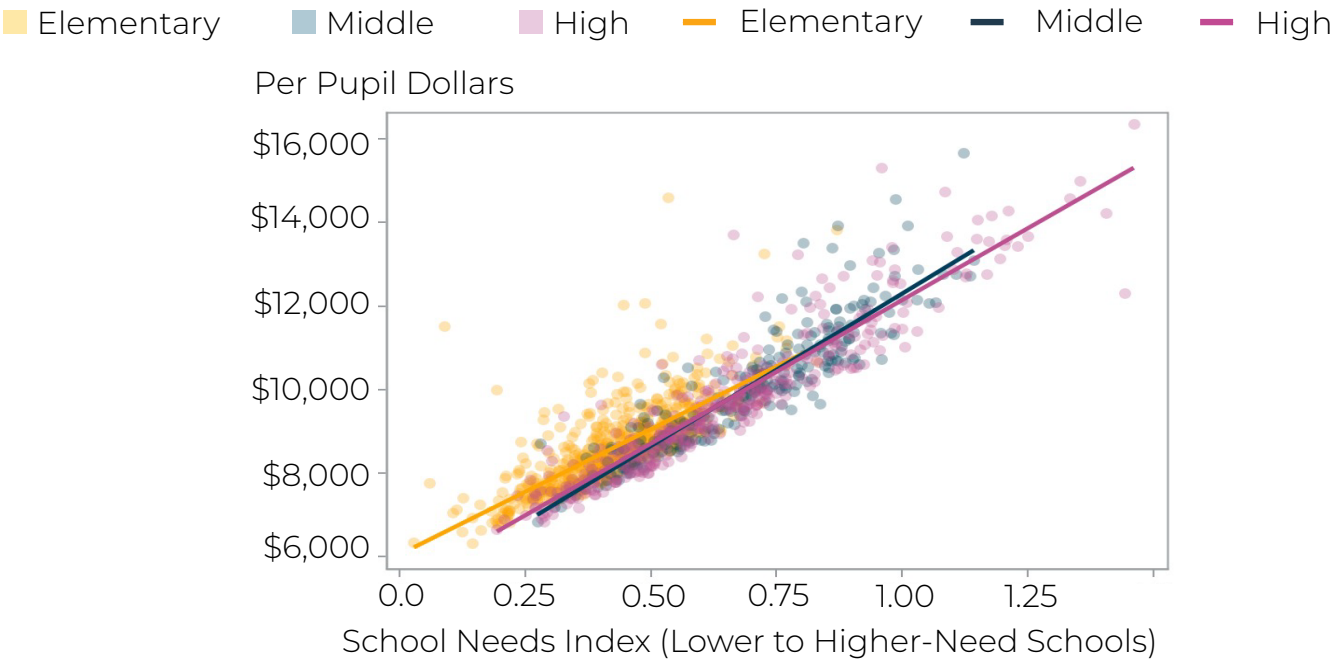
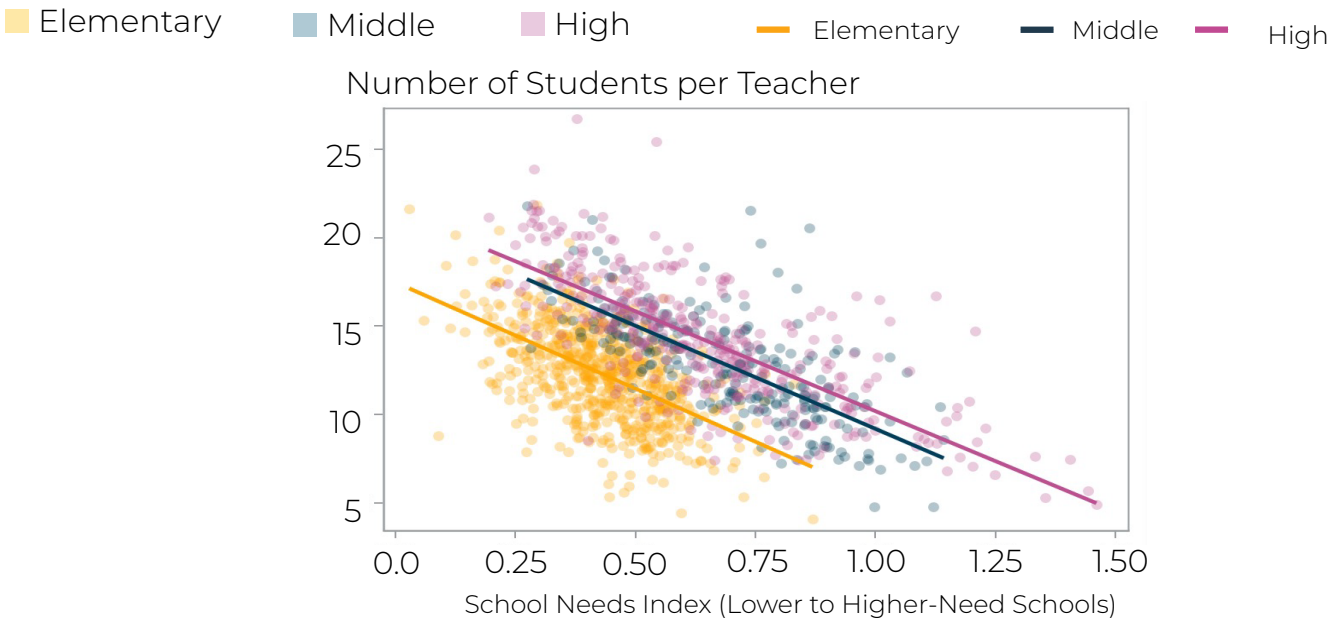


FIGURE 2 A

Higher-Need Schools Had Smaller Pupil-to-Teacher Ratios For General Education than Lower-Need Schools



SOURCE FOR BOTH CHARTS: IBO analysis of DOE Fair Student Funding data
NOTE FOR BOTH CHARTS: Points represent individual schools in the sample by the school levels. The predicted lines were estimated by Ordinary Least Squares (OLS) simple regression model.

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FIGURE 3 A

Higher-Need Middle Schools Had Larger Shares of Less-Experienced General Education Teachers than Lower-Need Middle Schools

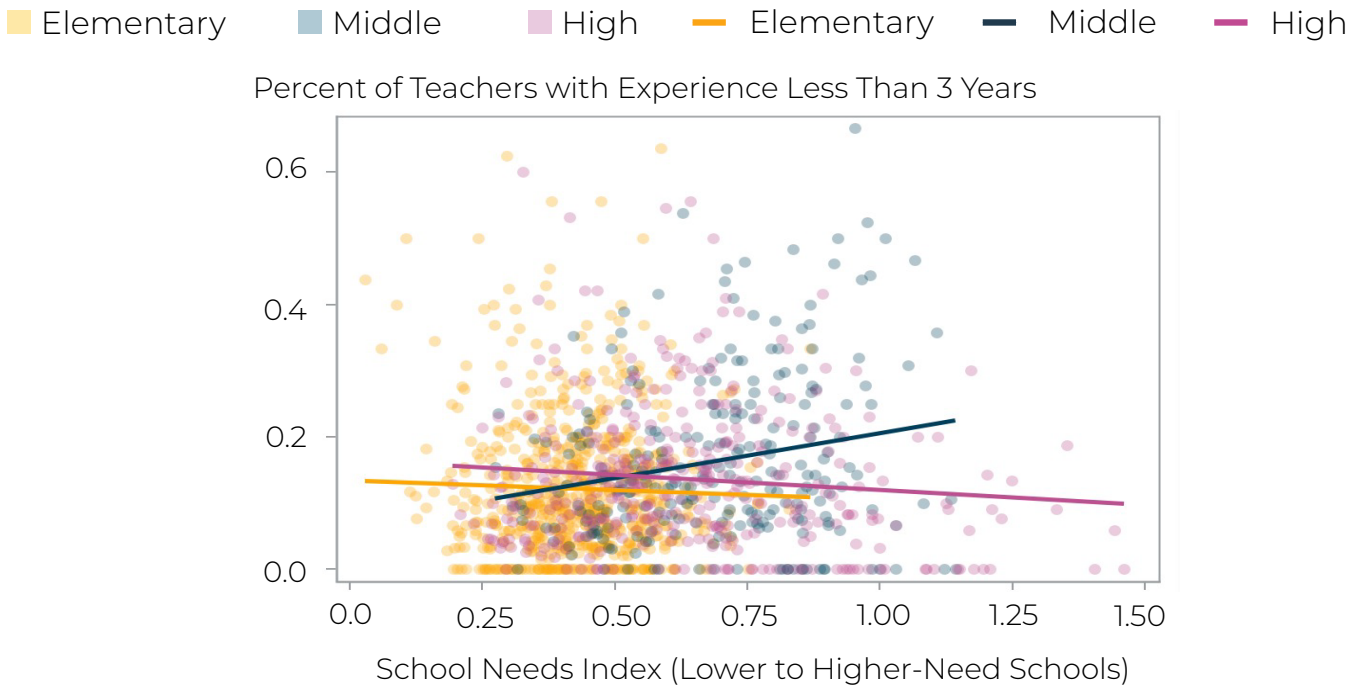
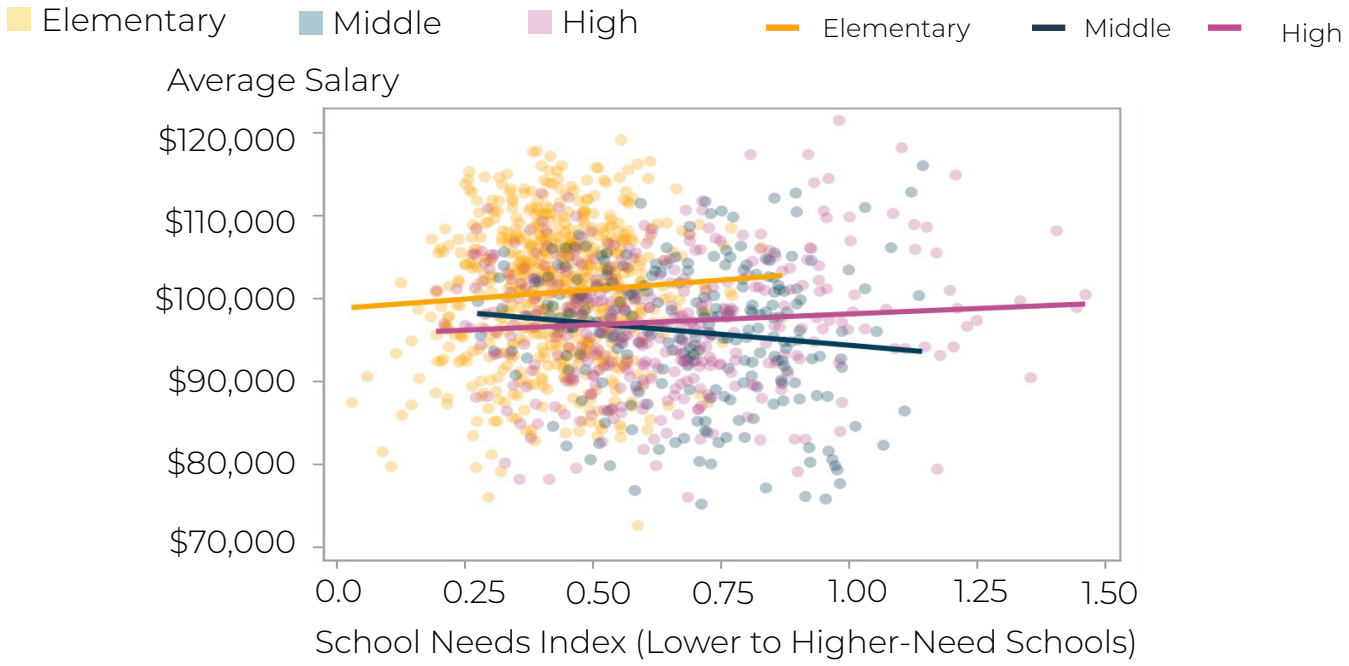


FIGURE 4 A

General Education Teachers within Higher-Need Middle Schools Had Lower Average Salaries Than Those in Lower-Need Schools



SOURCE FOR BOTH CHARTS: IBO analysis of DOE Fair Student Funding data
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Endnotes

[1] Kini, T., and Podolsky, A. (Learning Policy Institute, 2016) Does Teaching Experience Increase Teacher Effectiveness? A Review of the Research. This report reviewed 30 studies on this topic and summarized the shared findings on the educational effectiveness of gaining teaching experience.

[2] IBO plans to examine the last link to see the impacts of the additional resources (money and teachers) via FSF on students' academic performance as a future report.

[3] Berne, R. and Stiefel, L. (1994). Measuring equity at the school level- the nance perspective. Educational Evaluation and Policy Analysis, 16(4):405–421.; Iatarola, P. and Stiefel, L. (2003). Intradistrict equity of public education resources and performance. Economics of education review, 22(1):69–78.; Rubenstein, R., Schwartz, A. E., Stiefel, L., and Amor, H. B. H. (2007). From districts to schools: The distribution of resources across schools in big city school districts. Economics of Education Review, 26(5):532–545.; Schwartz, A. E. and Stiefel, L. (2004). Immigrants and the distribution of resources withing an urban school district. Education Evaluation and Policy Analysis, 26(4).; Stiefel, L., Rubenstein, R., and Berne, R. (1998). Intra-district equity in four large cities: Data, methods and results. Journal of Education Finance, 23(4):447–467.

[4] Goertz, M., Loeb, S., and Wyckoff, J. (2011). Recruiting, evaluating and retaining teachers: The children first strategy to improve New York City's teachers. Education reform in New York City: ambitious changes in the nation's most complex school system.

[5] The new contract developed the new Open-Market Transfer System, which gave principals the ability to make hiring decisions. Under the previous system, principals were required to hire a senior teacher under the seniority policy, even if they preferred not to. However, the updated system provided principals with greater discretion in teacher hiring. See Daly, T., Keeling, D., Grainger, R., and Grundies, A. (2008). Mutual benefits: New York City's shift to mutual consent in teacher hiring. Updated with a new afterword.

[6] DOE. School Allocation Memorandum No.1 for FY10, FY11, and FY12.

[7] In practice, the full implementation of the state's Foundation aid did not happen under their three-year phase-in period. So, DOE temporarily used COVID stimulus fund to raise the floor, expecting the state aid's full. See DOE School Allocation Memorandum No. 01, FY2022.

[8] IBO. (2007). New Funding Formula Seeks to Alter School Budget Disparities.

[9] IBO. (2013). Is It Getting Fairer? Examining Five Years of School Funding Allocations Under Fair Student Funding

[10] Middle school grade weight (1.08) reflects large drop-off in student achievement, greater social-emotional needs, and higher teacher cost; and high school grade weight (1.03) reflects higher costs for non-personnel (such as science materials), elective courses, and more administrative personnel services. See DOE Fair Student Funding Guide FY2024.

[11] NYC provides students with a portfolio of different education models for career and technical education, specialized academic, specialized audition, and transfer at the high school level (See DOE Fair Student Funding Guide FY2024).

[12] As a robustness check for the pupil-to-teacher ratio, IBO used the average class size data from New York State Education Department. The pattern is the same to the ratio analysis.

[13] The data on education level do not distinguish between general and special education. However, as discussed in the paragraph, the state-level policy could affect all types of teachers. So, there could be no substantial differences.

[14] See DOE Website: https://teachnyc.net/about-our-schools/salary-and-benefits#:~:text=As%20of%20January%202024%2C%20starting,experience%2C%20potentially%20additional%20coursework.

[15] Kini, T., and Podolsky, A. (Learning Policy Institute, 2016) Does Teaching Experience Increase Teacher Effectiveness? A Review of the Research.

[16] Jepsen, C., & Rivkin, S. G. (2002). Class size reduction, teacher quality, and academic achievement in California public elementary schools. Public Policy Institute of California.

[17] NYC DOE. (2006), Preliminary School Year 2006-2007 Initial School Allocations (https://www.nycenet.edu/offices/finance_schools/budget/DSBPO/allocationmemo/fy06_07/AM_FY07_SAM1.html)

[18] Hartman, W. T. (2003). School district budgeting.; Miles, K. H. and Roza, M. (2006). Understanding student-weighted allocation as a means to greater school resource equity. Peabody Journal of Education, 81(3):39–62.; Odden, A. and Picus, L. O. (2000). School Finance: A policy perspective.

[19] Miles, K. H. and Roza, M. (2006). Understanding student-weighted allocation as a means to greater school resource equity. Peabody Journal of Education, 81(3):39–62.

[20] See the details of the weights and formula in DOE website and documents: https://www.schools.nyc.gov/about-us/funding/funding-our-schools.

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