

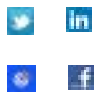
Did They Stay or Did They Go? A Closer Look at Enrollment Losses During the First Full Pandemic School Year



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Executive Summary

Enrollment in New York City traditional public schools has declined for the past six years, with the largest enrollment losses occurring during the first two school years after the onset of the Covid-19 pandemic. In fall 2021, the second full school year into the pandemic, traditional public schools in Districts 1 through 32 enrolled nearly 53,000 fewer students in pre-kindergarten through 12th grade than the year before.¹ Over the same six-year period, city charter school enrollment has increased, although the magnitude of the increase has tapered in recent years. In fall 2021, charter schools enrolled just over 1,000 additional students in pre-kindergarten through 12th grade than the year before.

On the school level, changes in enrollment affect school budgets, which fluctuate each year based on both the number and demographics of enrolled students.² In order to better understand who left the school system during the pandemic, IBO compared student movement for grades pre-K through 11th grade during the first pandemic school year (2020-2021) with pre-pandemic movement. Among our findings:

- Two factors drive school enrollment: the number of students who return each year and the number of new enrollees. After the first full pandemic school year (2020-2021), traditional public schools experienced enrollment losses, driven by a decrease in returning students. Charter schools, in contrast, saw a slight increase in enrollment after the first pandemic year, driven by a small uptick in newly enrolled students.
- After the first pandemic school year, lower rates of traditional public school and charter school students returned than before the pandemic, with most of those students moving out of the city rather than leaving for New York City private schools.
- During the first pandemic school year, the share of students who moved from traditional public and charter schools out of New York City increased, especially in elementary school grades. Students who moved out of the city from both traditional public schools and charter schools were demographically similar to students who moved out before the pandemic, with some differences by subgroups. A slightly lower share of traditional public school students who moved out during the first pandemic school year were English Language Learners than those who moved before the pandemic.
- During the first pandemic school year, the share of students who transferred from city traditional public and charter schools to private schools in the city increased slightly, although at much smaller scale than moves out of New York City. Larger shares of White students, smaller shares of Hispanic students, and smaller shares of those in poverty transferred from traditional public schools to private schools than before the pandemic. Charter school students who transferred did not differ substantially from those who transferred before the pandemic.
- Compared with all traditional public school students enrolled the first pandemic year, traditional public school students who later moved out were more likely to have selected a remote learning option and those who later transferred to private schools were more likely to have selected a blended learning option that year.
- Overall, the share of students in kindergarten through 11th grade who transferred between traditional public and charter schools decreased between the first and second pandemic year, with the largest declines in 5th, 8th, and high school grades.

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Introduction

While the trend of declining enrollment in traditional public schools began before the pandemic reached New York City schools, much has been made of large enrollment losses that occurred during the pandemic.³ Those looking to understand the reason for such losses have pointed to declining birthrates or to increases in non-public school attendance as possible explanations.⁴ Others have cited dissatisfaction with remote learning options as motivation for student departures nationwide.⁵ Charter school advocates have cited declining enrollment in traditional public schools as justification for the expansion of school options.⁶ Two months into his tenure, Department of Education Chancellor David Banks called on city schools to assume responsibility for enrollment losses, characterizing those declines as “families...voting with their feet.”⁷

In this report, the Independent Budget Office (IBO) examines enrollment, retention, and transfers from the public school system, by type of school, grade level, learning preferences, and student-level demographics. Unlike most analyses, which offer snapshots of school enrollment each year, IBO tracked the year-over-year enrollment of individual students. IBO looked at grades pre-K through 11th grade to identify which students returned to city public schools the following year and the school records that track where departing students went. From these analyses, IBO excluded 3-K students—during this period, 3-K programs were not yet available citywide—and 12th graders, the majority of whom would typically graduate and not return to city public schools the following year.

Timeline. This study focuses on the 2020-2021 school year, which we call the first pandemic year. Although schools first went remote in March 2020, the following school year represents the first full school year following the onset of the pandemic. Families with children enrolled in traditional public schools had the opportunity to select remote or blended learning at several points during the 2020-2021 school year. IBO also analyzed the learning preferences of traditional public school students who left the school system over the 2020-2021 school year. To establish baseline trends, IBO used the 2018-2019 school year, because that year preceded any pandemic-related changes.

Methods. IBO tracked student-level enrollment across audited register dates, which serve as snapshots of student attendance each fall. IBO used the Department of Education (DOE)’s discharge codes to

Figure 1

During the First Pandemic Year, Traditional Public Schools (Districts 1-32) Shifted Between Remote and Hybrid Learning Options

School Year	IBO Term	COVID Changes
2018-2019	Baseline Year	No pandemic-related changes.
2019-2020	Pandemic Onset Year	March 2020: All traditional public schools remote. Summer 2020: Families offered initial choice between remote and blended learning options. September: All schools remote. October: All schools hybrid.
2020-2021	First Pandemic Year	November: All schools remote. December: Pre-kindergarten to fifth grade open for hybrid. February: Middle schools open for hybrid. March: High schools open for hybrid.
2021-2022	Second Pandemic Year	All schools open in-person, with no remote options.

NOTE: Freidus, A., & Turner, E. O. (2022). “Contested Justice: Rethinking Educational Equity Through New York City’s COVID-19 School Reopening Debates.” Educational Evaluation and Policy Analysis, 0(0). <https://doi.org/10.3102/01623737221121802>; Heyward, Giulia (2021). “From shutdown to reopening: Here’s a look at N.Y.C.’ schools’ trek through the pandemic.” The New York Times. <https://www.nytimes.com/2021/09/13/world/reopening-timeline-nyc-schools.html>.

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understand where departing students went. When students leave the city’s public school system, their families must provide to their original school documentation of enrollment at a new school. Schools then assign discharge codes to each student, as required by New York State and the DOE Chancellor’s Regulation A-240.⁸ For this study, IBO focused on two discharge codes: moves out of New York City and transfers to New York City-based private schools. In a separate brief, IBO looked specifically at high school outcomes related to student enrollment during the pandemic, such as voluntary withdrawals and early diplomas, for students across all city schools.

IBO identified students as retained in the public school system if they were enrolled at an initial year’s audited register date in any city public school (traditional or charter) and were then enrolled the following school year in any other city public school, regardless of whether there was movement between traditional public or charter schools. For our retention and discharge code analyses, IBO excluded students enrolled in home instruction and hospital instruction, as well as 12th graders and high school students who graduated early.⁹ Finally, IBO also looked at movement between and among city traditional public schools and charter schools, which we refer to as student mobility.

Change in Enrollment During Pandemic Years

Traditional Public Schools Saw Enrollment Losses. During the first two years of the pandemic, traditional public schools saw large decreases in enrollment. The first pandemic school year (2020-2021) saw around 43,000 fewer students enrolled in Districts 1 through 32. The second full pandemic year (2021-2022), roughly 53,000 fewer students enrolled in those same districts than the year before, further driving enrollment losses. These two school years of dramatic enrollment losses were followed by a more moderate decline of roughly 18,000 fewer traditional public school students enrolled in the 2022-2023 school year.

For any given year, two factors determine student enrollment: the number of students who returned from the prior year and the number of new enrollees. Prior IBO work found that traditional public school enrollment losses after the pandemic onset year (the 2019-2020 school year) were driven by a decrease in the number of new enrollees. After extending that analysis into the following year, IBO found traditional public school enrollment losses after the first pandemic year were driven by a decrease in the number of retained students, of roughly 64,000 fewer students. A slight increase in the number of new enrollees by about 11,000 students did not offset the much larger decrease in the number of retained students.

Charter School Enrollment Slightly Rose. Meanwhile, charter schools saw increases in year-over-year enrollment, although the size of those increases were materially smaller in the 2021-2022 and 2022-2023 school years. The 2018-2019 and 2019-2020 school years saw increases of roughly 10,000 and 9,000 students respectively. During the two succeeding years, charter schools enrolled just over 1,000 additional students each year. After the first pandemic year, charter schools saw an increase in new enrollees of

Figure 2

After the First Pandemic Year, Traditional Public Schools Saw a Large Decrease in Enrollment While Charter Schools Experienced a Slight Increase

		2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Traditional Public Schools (Districts 1-32)	Enrollment	973,057	949,602	906,385	853,557	835,442
	Change from Prior Year	--	(23,455)	(43,217)	(52,828)	(18,115)
Charter Schools	Enrollment	119,551	129,668	138,648	139,752	140,918
	Change from Prior Year	--	10,117	8,980	1,104	1,166

SOURCE: IBO analysis of DOE Audited Register data

NOTE: Analysis includes students in grades pre-K through 12th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84. District 75 (citywide special education schools) and District 79 alternative high schools and programs are excluded.

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about 1,500 students, partially offset by a decrease in retained students of about 500 students.

Retention Rates for City Public Schools

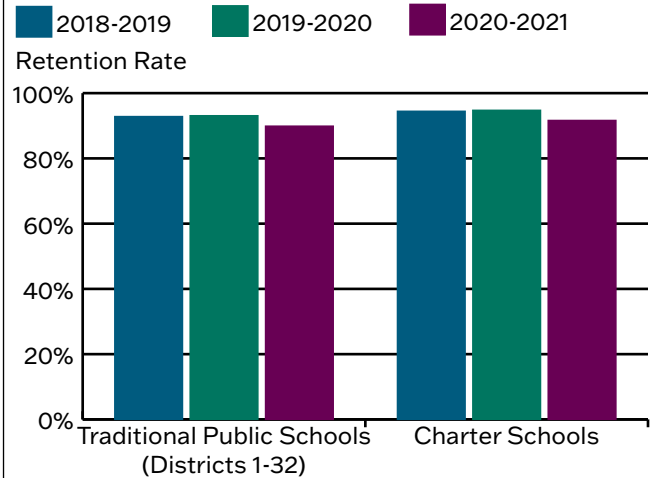
To better understand year-over-year retention changes, IBO calculated the retention rate for both traditional public schools and charter schools. These rates represent the share of students coming from the city’s traditional public schools or charter schools who returned to any city public school (traditional or charter) the following year.

Roughly 90 percent of all traditional public school students returned to a New York City public school after the first pandemic school year (2020-2021), compared with 93 percent of students after the baseline pre-pandemic school year (2018-2019). Charter schools also experienced a decrease in retention; after the first pandemic year, 92 percent of students returned the next fall, compared with 94 percent of students after the baseline year.¹⁰

Why Students Left City Public Schools

Schools assign discharge codes when students leave the city’s public school system. School staff input these codes based on the documentation provided by families at discharge. IBO examined two such codes: students who moved out of New York City and students who transferred to New York City private schools. After the first pandemic school year, both traditional public and charter schools saw an increase in the number of students moving out of the city as well as transferring to private schools within the city.

Figure 3
Retention Rates Decreased After The First Pandemic Year For Both Traditional Public Schools and Charter Schools



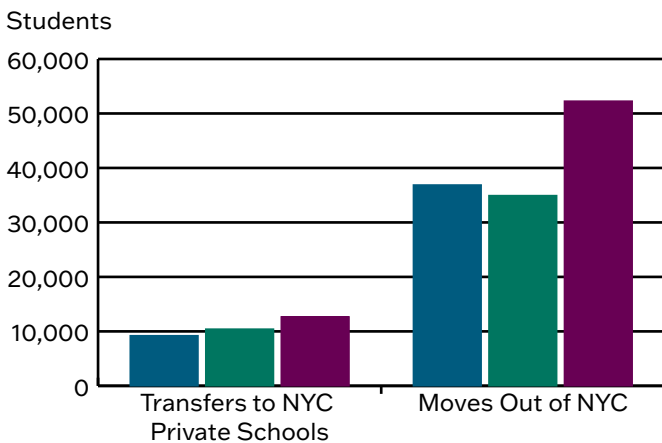
SOURCE: IBO analysis of DOE Audited Register data
NOTE: Analysis includes students in grades pre-K through 11th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84.

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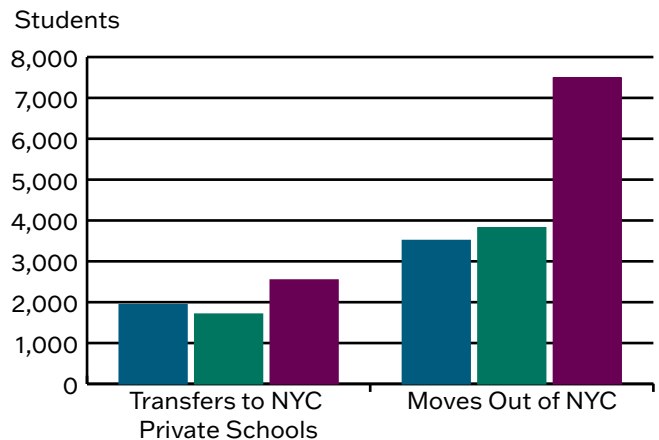
Figure 4
During The First Pandemic Year, Moves Out of New York City and Transfers to City Private Schools Increased

2018-2019 2019-2020 2020-2021

Traditional Public Schools



Charter Schools



SOURCE: IBO analysis of DOE Audited Register data

NOTE: Analysis includes students in grades pre-K through 11th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84.

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Of the students who left the public school system for either private schools or schools outside of New York City, students moving out of New York City accounted for the vast majority. During the first pandemic year (2020-2021), 6.2 percent of traditional public school students and 5.6 percent of charter school students moved out of New York City (a total of 52,281 traditional public school students and 7,490 charter school students). These shares represent a 2.1 percentage point increase for traditional public schools and a 2.6 percentage point increase for charter schools from the baseline year (2018-2019).

During the first pandemic school year (2020-2021), 1.5 percent of traditional public school students transferred to New York City private schools (12,675 students), a slight increase from the baseline school year (2018-2019) when 1.0 percent of students did (9,226 students). The share of charter school students who transferred to local private schools also increased, albeit even more slightly, from 1.7 percent of students during the baseline year (1,938 students) to 1.9 percent of students during the first pandemic year (2,545 students).

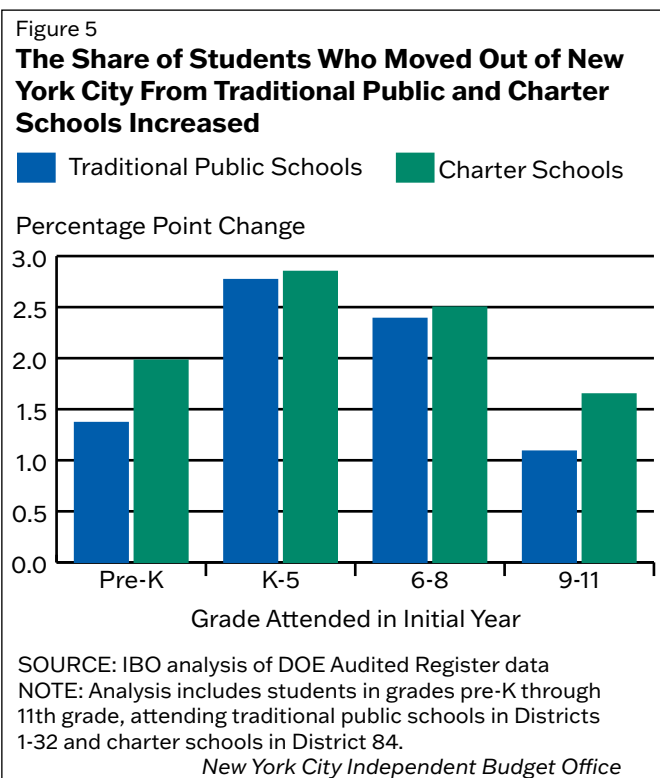
Public School Students Who Moved Outside of New York City

Grade Distribution. In elementary grades during the first pandemic year, traditional public schools and charter schools experienced large increases in the share of students who moved out of the city, compared with the baseline year. During the first pandemic year, 7.8 percent of traditional public school students in grades kindergarten through 5th grade moved out of New York City (28,624 of 369,088 students), compared with 5.0 percent of those same grades during the baseline year (20,426 of 409,616 students). Charter school students saw a similar increase in the share of students who moved out of New York City: during the first pandemic year, 5.9 percent of students in grades kindergarten through 5th grade moved out (4,493 of 76,210 students), compared with 3.0 percent of those grades during the baseline year (2,061 of 67,588 students).

Demographics. While students moved out of New York City at higher rates from all schools during the first pandemic year, those higher rates do not necessarily represent a change in the types of students who left New York City public schools. IBO examined whether students in grades pre-K through 11th grade who moved during the first pandemic year differed from the students who moved during the baseline year. IBO compared the students who moved out by race, poverty status, housing status, disability status, and English Language Learner status. To measure poverty status, IBO used the DOE’s indicator, which identifies students who qualify for free or reduced-price lunch, or are eligible for other Human Resources Administration benefits as in poverty.

Both the traditional public school and charter students who moved out of the city during the first pandemic year were similar in distribution to those who moved during the baseline year across all these demographics.¹¹ IBO found that while the overall share of students moving out of the city increased, the demographic distribution of students who moved mostly remained the same.

The most notable demographic shift between the baseline year and the first pandemic year occurred for traditional public school students by English Language



Learner status. The share of students who moved out of New York City who were English Language Learners decreased by four percentage points, from 21 percent of all moves (7,662 of 36,892 moves) to 17 percent of all moves (8,808 of 52,281 moves). All other subgroups of students leaving traditional public schools that IBO studied—race, poverty status, housing status, and disability status—saw shifts from the baseline year by 3 percentage points or less.

Public School Students Who Transferred to Local Private Schools

Grade Distribution. Comparing the first pandemic school year (2020-2021) with the baseline school year, both traditional public schools and charter schools experienced a slight increase in the share of students who transferred to New York City private schools. At all grade levels, the share of students who transferred to private schools during the first pandemic year was within one percentage point of the share who did the baseline year. The greatest change occurred for students attending pre-K within traditional public schools, from 1.3 percent of all pre-K students during the baseline year (897 of 69,678 students) to 2.2 percent of all pre-K students during the first pandemic year (1,305 of 59,590 students). While students attending pre-K within charter schools saw a slight decrease in transfers, the overall pre-K enrollment within charter schools is very low: during the first pandemic year, only 636 pre-K students were enrolled in charter schools.

Demographics. As we did with students moving out of New York City, IBO examined whether students in grades pre-K through 11th grade transferring to local private schools during the pandemic school years differed from the students who transferred during the pre-pandemic baseline year. The traditional public school students who transferred to private schools during the first pandemic year were nearly similar in demographic distribution to those who transferred the year before the pandemic by housing status, disability status, and English Language Learner status. The distribution of students differed between the baseline and first pandemic year by race and by poverty status.

The largest demographic shift for traditional public school students between the baseline year and the first pandemic year was by race. During the baseline year, 38 percent of transfers to private schools were White students (3,546 of 9,228 students). That share increased by five percentage points, to 43 percent of transfers (5,409 of 12,675 students), during the first pandemic year. The share of transfers who were Hispanic students decreased over that same time period, from 29 percent of transfers (2,634 of 9,228 students) to 25 percent (3,215 of 12,675 students).

The distribution of students who transferred to private schools also differed between the baseline and first pandemic year by poverty status. While 55 percent of transfers during the baseline year were not students in poverty (5,055 of 9,228 transfers), that share increased to 59 percent during the first pandemic year (7,424 of 12,675 transfers).

In contrast, the charter school students who transferred to private schools during the first pandemic year were similar to charter school students who transferred during the baseline year, by all subgroups studied (race, poverty status, disability status, and English Language Learner Status).

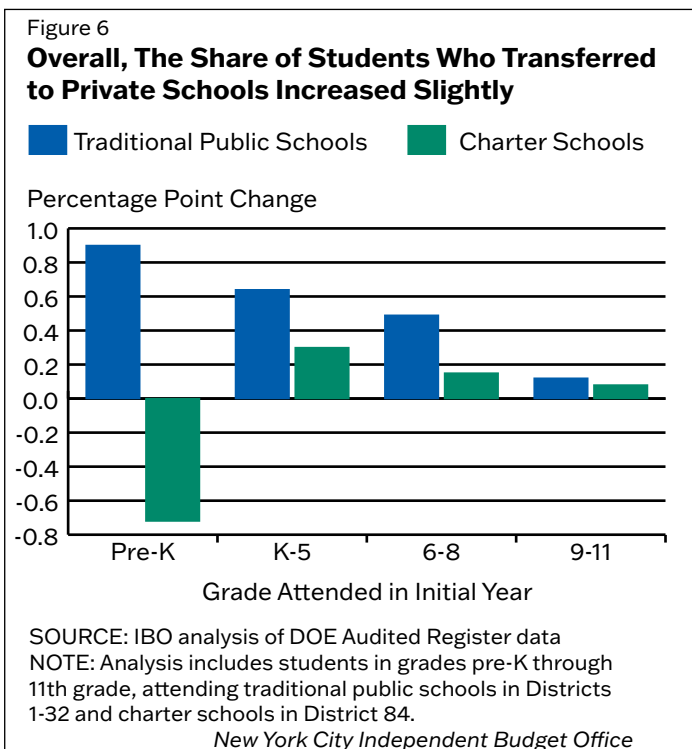
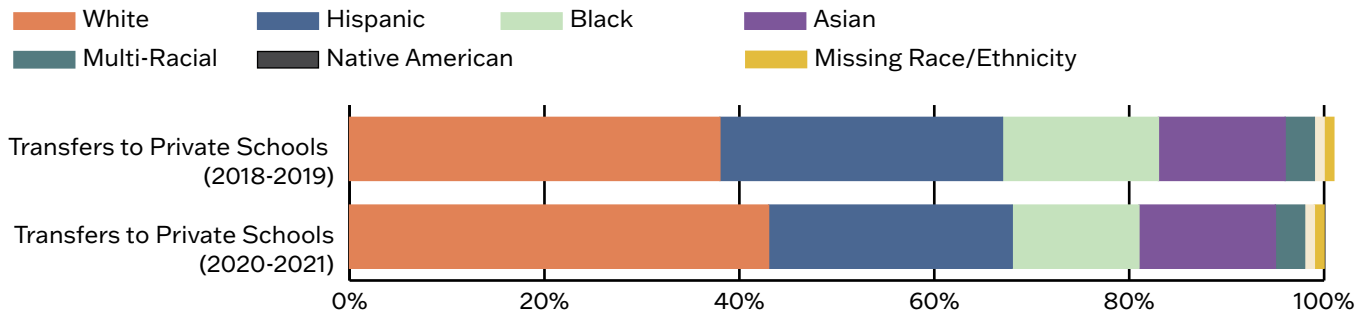


Figure 7

Compared with the Baseline Year, A Higher Share of White Traditional Public School Students Transferred to Private Schools During the First Pandemic Year



SOURCE: IBO analysis of DOE Audited Register data

NOTE: Analysis includes students in grades pre-K through 11th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84.

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Students Who Left City Public Schools Were More Likely To Select Certain Learning Preferences

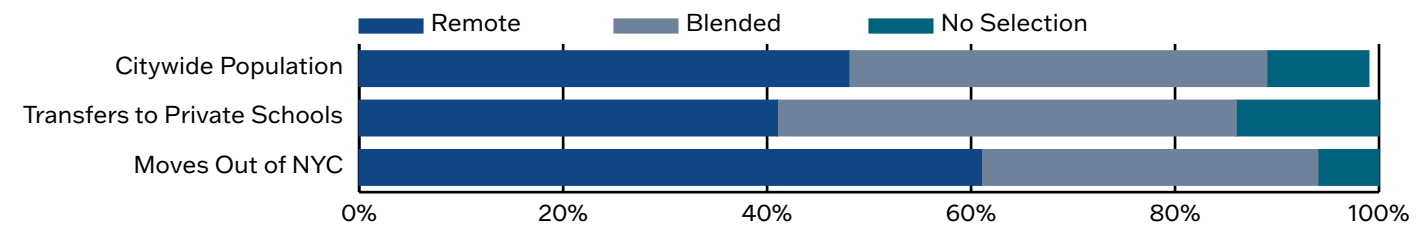
During the first pandemic year, traditional public school students could choose between a remote learning option, a blended learning option (with some days in-person and some days remote), or make no selection and receive the default option of blended learning. Charter schools determined their own school reopening plans, including whether to offer hybrid learning options or remain fully remote.¹² IBO does not have access to data on the learning preferences of charter school students that year, either at the school or student level.

Traditional public school students who moved out of New York City for the first pandemic school year (2020-2021) were more likely to have chosen remote learning than the overall student population by 13 percentage points. Traditional public school students who transferred to city private schools during 2020-2021 were more likely to have chosen blended learning than the overall student population by 4 percentage points.

Anecdotal stories described families who moved out of New York City during the pandemic whose students remained enrolled in city public schools because of the remote learning option.¹³ IBO’s finding of a much higher share of remote learning among students who later moved out of New York City lends some support to this narrative. If so, the school system would not formally discharge those students until the 2021-2022 school year, when the requirement to attend school in-person was reinstated.¹⁴

Figure 8

Compared with the Citywide Distribution, Students Who Moved Were More Likely to Choose Remote Learning and Students Who Transferred to Private Schools Were More Likely to Choose Blended Learning



SOURCE: IBO analysis of DOE Audited Register data

NOTE: Analysis includes students in grades pre-K through 11th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84.

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Similarly, IBO found that a slightly higher share of students who later transferred to private schools had selected blended learning than students did citywide. This finding may indicate families who left the school system for private schools prioritized in-person instruction. These families may have been dissatisfied with the public school system which switched to fully remote learning several times during the first pandemic year. During the first pandemic year, over four times as many traditional public school students moved out of the city as transferred to private schools.

The Share of Transfers between Traditional Public Schools and Charter Schools Decreased During the Pandemic School Years

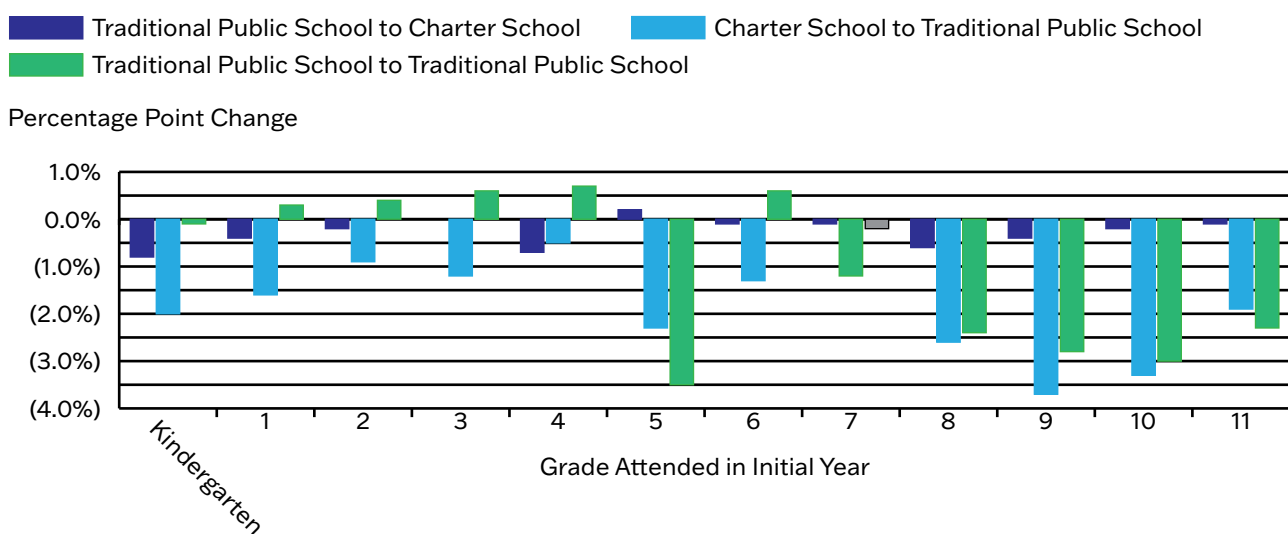
While traditional public school enrollment decreased after the first pandemic year, charter school enrollment increased slightly. These differing trends have led some to suggest that families are transferring from one type to the other, or that families wish to transfer but are limited by the state cap on the number of New York City charter schools.¹⁵ To explore changes within the city’s school system during the first pandemic year, IBO examined transfers between traditional public schools and charter schools. IBO looked at movement between different traditional public schools, as well as movement between traditional public schools and charter schools in both directions. For these analyses, IBO excluded movement following pre-K, as charter schools serve very few pre-K students.

IBO found that overall mobility between traditional public schools and charter schools decreased after the first full pandemic year, although there was some variation by grade level. After the first pandemic year (2020-2021), 1.4 percent of traditional public school students in grades kindergarten through 11th grade (10,803 of 782,632 students) transferred to charter schools, compared with 1.7 percent (14,123 of 835,600 students) after the baseline year (2018-2019). After the first pandemic year, 7.3 percent of charter school students in kindergarten through 11th grade (9,642 of 132,919 students) transferred to traditional public schools, compared with 8.9 percent (10,246 of 114,915 students) after the baseline year.

IBO found that transfers from traditional public schools to charter schools decreased slightly across grades kindergarten through 11th grade, with the exception of 5th grade, where there was a slight increase.

Figure 9

Mobility After First Pandemic Year Decreased, Compared With Mobility After Baseline Year



SOURCE: IBO analysis of DOE Audited Register data

NOTE: Analysis includes students in grades pre-K through 11th grade, attending traditional public schools in Districts 1-32 and charter schools in District 84.



IBO found transfers from charter schools to traditional public schools decreased across all grades, with especially large decreases in 5th grade, 8th grade, and the high school grades. Transfers between traditional public schools increased slightly in elementary grades, and decreased slightly in high school grades.

Conclusion

Much has been made of enrollment declines in New York City public schools in recent years, which have both short- and long-term implications for city schools. Some have suggested the losses reflect families' dissatisfaction with pandemic-era school policies, including remote schooling and changes to admissions policies. In this report, IBO found that NYC's enrollment decline after the first pandemic year (2020-2021) was driven by a decrease in returning students. And while the share of traditional public and charter school students who moved out of New York City increased substantially during the first pandemic year, the demographics of those who moved were similar to the year before the pandemic began (2018-2019). While IBO does not have access to the reasons why families left New York City, it seems those push factors were felt by families in equal measure. A notable exception was English Language Learners: during the first pandemic year, fewer of the students who moved out of New York City were English Language Learners than before the pandemic.

During the first pandemic year, families enrolled in traditional public schools could choose between hybrid and remote learning models. IBO found that a greater share of traditional public school students who later left the New York City school system had selected remote learning than students citywide. This finding suggests that some students had moved out of New York City earlier than their discharge codes suggest. If so, those students were able to continue their New York City schooling through the end of the school year, albeit remotely. While some research has identified a relationship between districts that did not offer in-person learning and larger enrollment losses, the story in New York City requires more nuance.¹⁶ The majority of families who eventually moved out of New York City from traditional public schools had selected a remote learning option during the 2020-2021 school year, even while a hybrid option existed.

Finally, during the first pandemic year, IBO found fewer students transferred between traditional public schools and charter schools than before the pandemic. Transfers between traditional public schools, however, increased in the elementary school grades. These findings suggest that the decline in traditional public school enrollment cannot be attributed to movement towards the city's charter schools.

As additional data on student-level discharge codes become available, IBO will monitor these trends over the second pandemic year, the 2021-2022 school year. Given that city population data suggest outmigration slowed over that school year, IBO will explore whether the trends identified in this report during the first pandemic year represent an anomaly within New York City enrollment trends, or a new normal.¹⁷ Accompanying IBO reports examined moves and transfers by community school district, as well as early exits—including voluntary withdrawals and early diplomas—from high school for students in all city schools.

Glossary

Retention Rate: The share of students enrolled at one snapshot date (the “audited register” date), who were also enrolled at the snapshot date the following year at any New York City public or charter school.

Discharge code: A code assigned to students when they leave the New York City public school system indicating their reason for leaving.

Moves to Schools Outside of New York City: Student who notified New York City public schools that they had moved outside of New York City (within or out of New York State), as indicated through their discharge code.

Transfers to Private Schools: Student who transferred to non-public schools, including independent schools and parochial schools, as indicated through their discharge code.

Mobility rate: The share of students enrolled at the public schools’ audited register at an initial year, who were present the following year at a different public school.

Endnotes

¹ In this and all following analyses, IBO includes pre-K students enrolled in both DOE sites and Community-Based Organizations.

² Traditional public schools’ budgets are determined in part by the DOE’s Fair Student Funding formula. For more details on how the formula works, see: New York City Independent Budget Office (June 2023). “Fair Student Funding FSF.” [Fair Student Funding FSF - YouTube](#).

³ New York City Independent Budget Office. “Public School Indicators: Student Demographics”. <https://www.ibo.nyc.ny.us/publicschool.html#student-demographics-2021>

⁴ Zimmer, A. (2023). “NYC schools want to boost enrollment. It might prove a major challenge.” *Chalkbeat New York*. <https://ny.chalkbeat.org/2023/2/9/23591966/nyc-schools-covid-enrollment-loss-population-exodus>

⁵ Belsha, Kalyn (2021). “Lack of in-person instruction pushed public school enrollment down, new research finds.” *Chalkbeat*. <https://www.chalkbeat.org/2021/8/7/22613546/research-remote-instruction-school-enrollment-declines>

⁶ The Education Trust—New York (February 2023). “Shifting Student Populations: How New York schools can address the shifting needs and priorities of students and families.” The Education Trust—New York. [ETNY-Enrollment-Report-2023.pdf \(edtrust.org\)](#)

⁷ Chancellor David C. Banks. “Chancellor Banks Outlines Vision For Transforming and Building Trust in NYC Public Schools.” [Chancellor Banks outlines vision for transforming and building trust in nyc public schools](#)

⁸ NYC DOE Division of School Climate and Wellness (2020-2021). “2020-2021 Transfer, Discharge, and Graduation Guidelines.” https://www.uft.org/sites/default/files/attachments/TDG_20-21.pdf.

⁹ Early graduates included students who were discharged from a city public school with any of the following codes: an Advanced Regents diploma, an Honors Regent diploma, a Regents diploma, a local diploma, proof of high school diploma from a non-DOE school, and satisfactory completion of home schooling. During the baseline year (2018-2019), there were 6,362 students discharged with one of those codes. During the first pandemic year, there were 7,628 such students.

¹⁰ Retention rates are calculated by the share of students present in initial grades pre-K through 11th grade at the audited register date for any city public schools (traditional public or charter school), who were then present the following year at any city public school at the audited register date.

¹¹ IBO does not receive complete data on the housing status of charter school students.

¹² Garrison, Al. (2020). “From fully remote to more in-person learning for younger students: Here’s what some NYC charter schools are doing this fall.” *Chalkbeat New York*.

¹³ Elsen-Rooney, M. (2021). “NYC students who moved, got jobs during pandemic remote learning now face tough choices as in-person classes return.” *New York Daily News*. <https://www.nydailynews.com/new-york/education/ny-high-school-students-move-away-20210919-56z5dggewijeixhmwdifvjug6fy-story.html>

¹⁴ In this report, IBO tracks student enrollment from each year’s audited register date. Additional analyses could explore the date of discharge within the school year that students left the school system.

¹⁵ Campanile, C. (2022). “Enrollment jumps at NYC charters, public schools lose 62,000 students.” *New York Post*.

¹⁶ Belsha, Kalyn (2021). “Lack of in-person instruction pushed public school enrollment down, new research finds.” *Chalkbeat*. <https://www.chalkbeat.org/2021/8/7/22613546/research-remote-instruction-school-enrollment-declines>

¹⁷ New York City Planning (March 2023). “New York City’s Current Population Estimates and Trends.” <https://www.nyc.gov/assets/planning/download/pdf/planning-level/nyc-population/population-estimates/population-trends-2022.pdf?r=a>