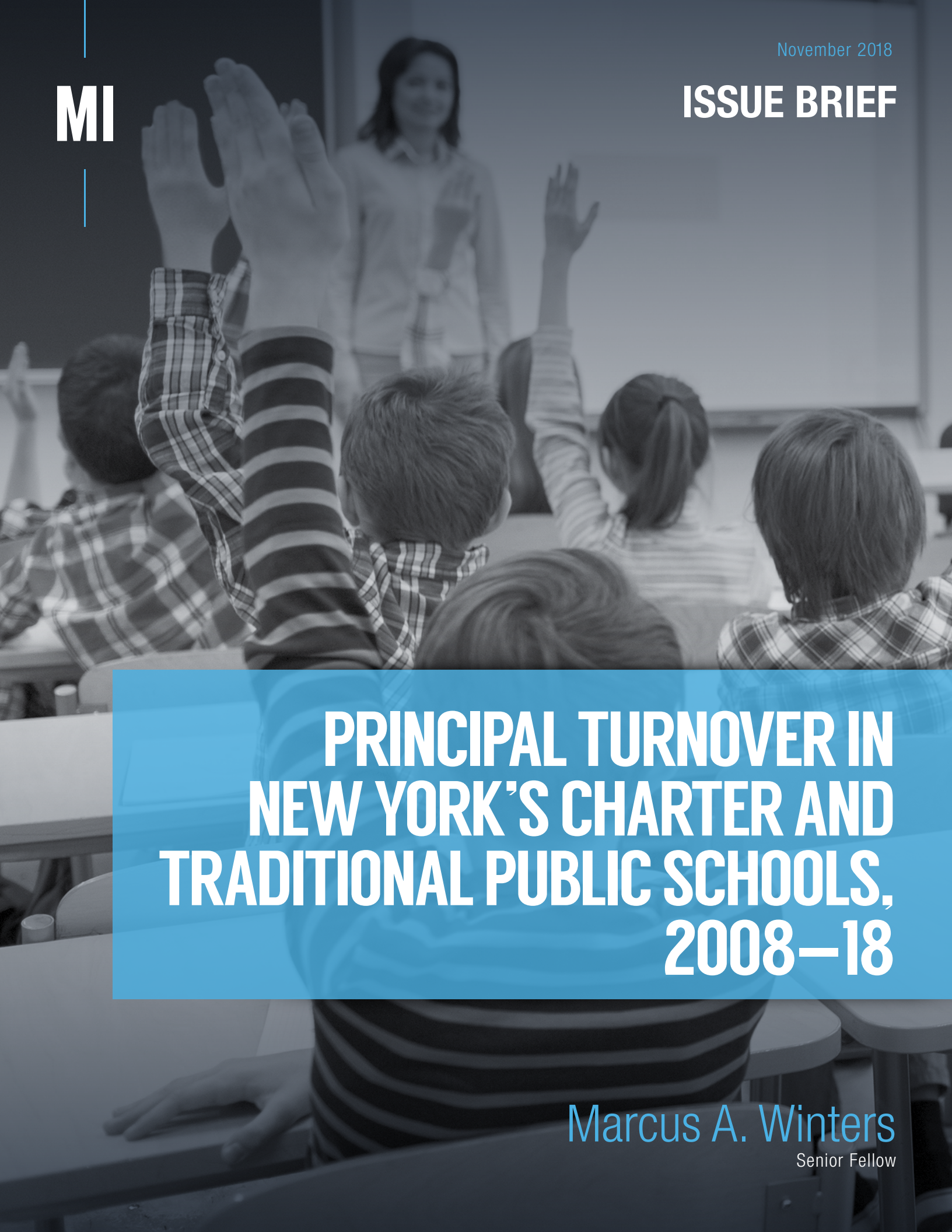

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ISSUE BRIEF

PRINCIPAL TURNOVER IN NEW YORK'S CHARTER AND TRADITIONAL PUBLIC SCHOOLS, 2008–18

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Executive Summary

Charter schools in the U.S. experience higher rates of student and teacher turnover than traditional public schools (TPS).[1] Less is known, however, about principal turnover, despite the important role that a principal plays in a school's success.

This paper evaluates principal turnover in New York City's charters and TPS during 2008–18. It finds that: (1) principal turnover is higher in charters than in TPS; (2) the charter–TPS turnover gap changes over time; (3) the gap may be smaller than previously thought; (4) higher turnover is *not* due to differences in student demographics between the two sectors; and (5) turnover is similar in low-performing charters and in low-performing TPS.

Empirical research has found that principal turnover tends to negatively affect a school's performance.[2] This paper's findings thus suggest, among others, that New York City charters—which are, in general, already more effective than the city's TPS (see, e.g., Marcus A. Winters, "New York City's Charter Schools: What the Research Shows," Manhattan Institute, Feb. 28, 2018)—might further improve by reducing principal turnover.

Introduction

Principals play a critical role in the success of schools. Among other reasons: they shape a school's culture; and they hire, fire, and develop teachers. In theory, higher rates of principal turnover could improve school performance (by, say, removing ineffective principals) or damage it (by disrupting school culture and management). Academic research, however, suggests that principal turnover reduces schools' performance, at least in the short run.[3] But measuring the precise impact of principals on performance is difficult.[4]

Indeed, school leadership is an understudied area, in general and in the context of the expanding charter sector. While we know that students[5] and teachers[6] are more likely to exit charters than they are to exit traditional public schools (TPS), empirical research evaluating differences in principal turnover between charters and TPS is scarce.

Rates of principal turnover may differ between charters and TPS for various reasons. Charter principals, for example, often have responsibilities that TPS principals do not, such as managing buildings, coordinating curriculum, and recruiting students.[7] In such cases, charter principals may experience higher levels of burnout. Because charters must compete vigorously to survive, charter principals are also subject to greater scrutiny of their performance. As a result, charter principals who preside over struggling schools may be fired more quickly.

This paper focuses on New York City. It conducts a series of statistical tests to answer the following questions: Was principal turnover higher among charters or TPS (elementary, middle, and K–8) during 2008–18? Were the differences in turnover caused by differences in student demographics and/or school performance?

Findings

I combine four sources of data into a single longitudinal data set. For school years 2007–08 through 2012–13, I use the New York City Department of Education's (DOE) School Progress Reports, which include student demographics for TPS and charters, the names of their principals, and their scores on the city's previous school-grading system. For 2013–14, I use data from the city's (nearly identical) School Quality Reports.[8]

Unfortunately, my analysis of the effect of school performance on principal turnover does not extend beyond 2013–14: in 2014–15, Bill de Blasio's first full school year as mayor, DOE stopped calculating school grades (or any other summary measure of school performance), and it stopped publishing the names of charter school principals. To obtain the latter for 2014–15 to 2017–18, I use DOE's Location Code Generation and Management System (LCGMS) data set; to obtain student demographic information, I use DOE's Demographic Snapshots.

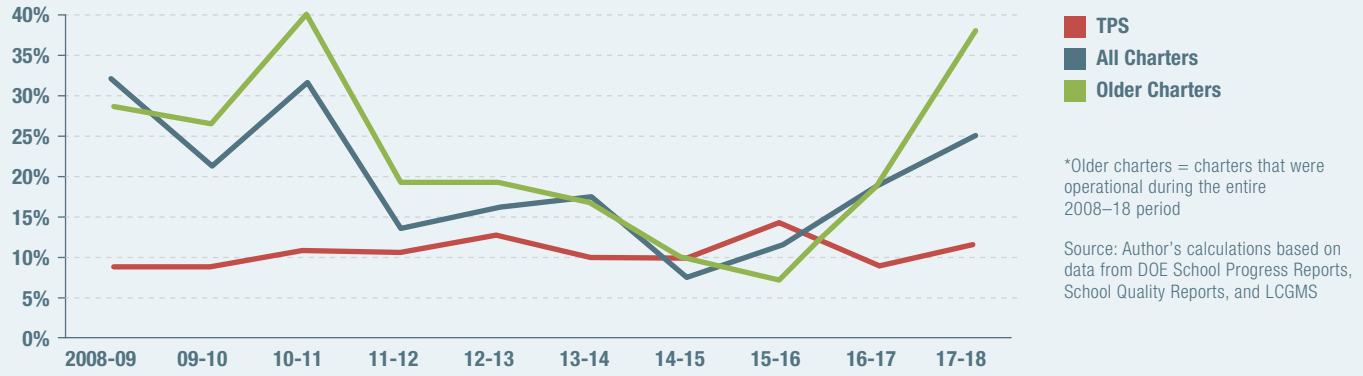
I classify a school as having a new principal in a given year if the name of the listed principal differs from the name listed the previous year.[9] Despite the use of different data sets, there is no reason to suspect—except for 2014–15, when the data set switches from Quality Reports to LCGMS—that actual principal turnover was different from that reported below. However, as discussed later, including 2014–15 does *not* affect my regression estimates for subsequent school years.

Principal Turnover

Figure 1 shows that principal turnover during 2008–18 was significantly higher for charters (blue and green lines) than for TPS (red line). The blue line shows the rate for all charters (i.e., older and newer charters), while the green line shows the rate only for older charters (i.e., those that were operational for the entire period). Because staff turnover at new schools—of which charters, not TPS, are the primary source—is typically higher than at established schools, the green line allows us to see if principal turnover at established charters was comparable with that at TPS (it was not).

FIGURE 1.

Principal Turnover, 2008–18*



*Older charters = charters that were operational during the entire 2008–18 period

Source: Author's calculations based on data from DOE School Progress Reports, School Quality Reports, and LCGMS

As Figure 1 shows, principal turnover in TPS ranged from 8.7% to 14%. Turnover in all charters (blue line) ranged from 7.3% to 31.8%, with two big swings. From 2008–09 to 2014–15, turnover fell from 31.8% to 7.3% (even lower than the 2014–15 TPS rate of 9.7%). And from 2014–15 to 2017–18, turnover jumped to 25%. Turnover for charters that were operational for the entire period (green line) ranged from 7.1% to 40.5%.

The cause of the sustained decline and then sudden spike in charter principal turnover, as shown in Figure 1, is unclear. Might a surge in new charters have inflated overall charter turnover rates? No. For most of 2008–18, long-established charters had *higher* turnover than did charters as a whole. However, an inflationary surge in new charters would not have caused overall charter turnover to *decline*, as it did from 2008–09 to 2014–15.

Might the switch to the LCGMS data set, beginning in 2014–15, have played a role? While the switch may have caused subsequent turnover rates to be understated,[10] the decline in charter turnover began *before* 2014–15. Further, if the new data set significantly affected turnover, TPS would have been affected, too. Yet turnover for TPS remained within a narrow range during the entire period.

Might the decline and spike be statistical "noise"? If yes, one would expect turnover to rise and fall randomly (i.e., no clear pattern). Instead, turnover is roughly flat for TPS, and it follows a (mostly) sustained decline, and then a sustained spike, for charters.[11]

Further research is thus needed to explain charter turnover in New York City during this period. Nevertheless, these findings suggest that: (1) charters in New York experience higher rates of principal turnover than do TPS; (2) the charter–TPS turnover gap changes over time; and (3) the gap may be smaller than previously thought (see, e.g., New York City Charter School Center, "The State of the New York City Charter School Sector, 2012").

Principal Turnover After Accounting for Student Demographics

TPS that serve low-income and minority students tend to experience greater principal turnover.[12] In New York City and elsewhere, charters typically enroll higher proportions of such students than do TPS.[13] Could higher principal turnover in charters be caused by differences in student demographics?

To test this hypothesis, I ran a series of regressions for the 2008–18 period (**Figure 2**). My baseline model (second column from left) controls only for changes in turnover experienced by each sector (charters and TPS). My next three models (third column from right, second column from right, and right column, respectively) add additional control variables: percentage of students who were English language learners (ELL) the previous year; percentage of students who were in special education the previous year (i.e., they had an individualized education program, or IEP); percentage of students the previous year who were black or Hispanic; percentage of students who were eligible for a free or reduced-price lunch (FRL); and a broad measure of students' socioeconomic status (Average Peer Index). The key takeaway from Figure 2: higher principal turnover in charters was *not* driven by student demographics.

Figure 2, for example, shows that charters were about 7 percentage points (coefficients in the "Charters" row range from 0.0728 to 0.0739) more likely than TPS to have a new principal in a given year, after accounting for student demographics. Yet even as more controls are added, the relationship between a school being a charter and principal turnover remains roughly unchanged. In other words, the estimate on the charter variable is essentially the same across all the controls, which indicates that higher turnover among charters does *not* result from charters serving student populations that are, on average, more disadvantaged.

FIGURE 2.

Regression Results Comparing Principal Turnover After Accounting for Student Demographics, 2008–18^

Charters	0.0739***	0.0731***	0.0728***	0.0739***
	[0.0129]	[0.0136]	[0.0143]	[0.0165]
Elementary		-0.0288***	-0.0223***	-0.0267*
		[0.00626]	[0.00635]	[0.0142]
K–8		0.00369	0.00700	0.00142
		[0.00909]	[0.00912]	[0.0135]
Lag % ELL			-0.0225	-0.0109
			[0.0231]	[0.0284]
Lag % IEP			0.174***	0.170***
			[0.0481]	[0.0485]
Lag % Black & Hispanic			0.0252**	0.0304*
			[0.0103]	[0.0167]
Lag % FRL				-0.0182
				[0.0249]
Lag Average Peer Index				0.000149
Observations	11,615	11,382	11,271	10,897
R-squared	0.007	0.009	0.011	0.010

^Estimates use the ordinary least-squares method. Sample includes all schools with non-missing values from 2008–09 through 2017–18. The dependent variable in all models equals "1" if the school has a new principal in a given year, and it equals "0" otherwise. All models include year-fixed effects. Schools in their first year are not included in the sample. Heteroskedastic robust standard errors are in brackets. *, **, and *** indicate that the coefficient is significantly different from zero at the 10%, 5%, or 1% level of significance, respectively.

Source: Author's calculations based on data from DOE School Progress Reports, School Quality Reports, and LCGMS

Principal Turnover After Accounting for School Performance

Because charters must compete to attract students, they typically face stronger incentives to improve school performance than do TPS. As a result, charters may be more likely to fire principals when schools don't meet expectations, or to retain principals for good performance.

To test this hypothesis, I ran a set of regressions that controls for school performance for the 2008–15 period (**Figure 3**), as measured by DOE's School Progress and Quality Reports. (As noted, the city discontinued their use after 2014–15.) My baseline model (second column from left) controls only for school year and student demographics. My next model (second column from right) controls for the letter grade that schools received at the end of the previous school year. My final model (right column) controls for the number of points that schools received on each component of the Progress and Quality Reports. The key takeaway from Figure 3: higher principal turnover in charters was *not* driven by overall school performance.

FIGURE 3.

Regression Results Comparing Principal Turnover After Accounting for Overall School Performance, 2008–15^

Charters	0.0778***	0.0845***	
	[0.0183]	[0.0183]	
Grade A		-0.0404***	
		[0.0101]	
Grade B		-0.0214**	
		[0.00976]	
Grade D		0.0114	
		[0.0191]	
Grade F		0.0708**	
		[0.0354]	
Progress			-0.00153***
			[0.000371]
Performance			0.000761
			[0.000557]
Environment			-0.00101*
			[0.000555]
Observations	7649	7,651	7,649
R-squared	0.010	0.014	0.013

^Estimates use the ordinary least-squares method. Sample includes all schools with non-missing values from 2008–09 through 2014–15. The dependent variable in all models equals "1" if the school has a new principal in a given year, and it equals "0" otherwise. All models include year-fixed effects, as well as the student demographics shown in Figure 2. Schools in their first year are not included in the sample. Heteroskedastic robust standard errors are in brackets. *, **, and *** indicate that the coefficient is significantly different from zero at the 10%, 5%, or 1% level of significance, respectively.

Source: Author's calculations based on data from DOE School Progress Reports

FIGURE 4.

Regression Results Comparing Principal Turnover After Accounting for Certain Elements of School Performance, 2008–15^

Charter	0.115***	0.136***	0.123***
	[0.0399]	[0.0273]	[0.0250]
Charter * Progress	-0.000951		
	[0.000938]		
Charter * Performance		-0.00229***	
		[0.000639]	
Charter * Environment			-0.00212***
			[0.000622]
Progress	-0.00133***		
	[0.000335]		
Performance		-0.000383	
		[0.000479]	
Environment			-0.000876*
			[0.000525]
Observations	7,649	7,649	7,649
R-squared	0.012	0.012	0.012

^Estimates use the ordinary least-squares method. Sample includes all schools with non-missing values from 2008–09 through 2014–15. The dependent variable in all models equals "1" if the school has a new principal in a given year, and it equals "0" otherwise. All models include year-fixed effects, as well as the student demographics shown in Figure 2. Schools in their first year are not included in the sample. Heteroskedastic robust standard errors are in brackets. * and *** indicate that the coefficient is significantly different from zero at the 10% or 1% level of significance, respectively.

Source: Author's calculations based on data from DOE School Progress Reports

Might higher turnover in charters be driven by certain elements of school performance? To test this hypothesis, I ran a set of regressions (**Figure 4**) that controls for the three elements of school performance that are used in the School Progress and Quality Reports: "progress," "performance," and "environment."[14] I also examine whether the relationship between these elements and principal turnover differs for charters and TPS. The key takeaway from Figure 4: the relationship between performance and environment and principal turnover is only marginally different between charters and TPS.

Conclusion

This paper examines principal turnover in New York City's charters and traditional public schools during 2008–18. It finds that: (1) principal turnover is higher in charters than in TPS; (2) the charter–TPS turnover gap changes over time; (3) the gap may be smaller than previously thought; (4) higher turnover is *not* due to differences in student demographics between the two sectors; and (5) turnover is similar in low-performing charters and in low-performing TPS.

Though further research is needed to explain charter turnover in New York City during this period, these findings do suggest that New York City charters—which already excel academically relative to the city's TPS—might further improve by reducing principal turnover.

Endnotes

1 See, e.g., David Stuit and Thomas M. Smith, "Teacher Turnover in Charter Schools," Vanderbilt University, June 2010.

2 See, e.g., Ashley Miller, "Principal Turnover and Student Achievement," *Economics of Education Review* 36 (October 2013): 60–72; and Gregory F. Branch, Eric A. Hanushek, and Steven G. Rivkin, "Principal Turnover and Effectiveness," American Economics Association, December 2008.

3 See Miller, "Principal Turnover and Student Achievement"; and Branch, Hanushek, and Rivkin, "Principal Turnover and Effectiveness."

4 Absent frequent changes in principals in a given school, it is not possible to separate the impact of a principal from other factors in the school that also do not change over time. See, e.g., Michael Coelli and David Green, "Leadership Effects: School Principals and Student Outcomes," *Economics of Education Review* 31, no. 1 (August 2011): 92–109; Jason Grissom and Susanna Loeb, "Triangulating Principal Effectiveness: How Perspectives of Parents, Teachers, and Assistant Principals Identify the Central Importance of Managerial Skills," *American Educational Research Journal* 48, no. 5 (October 2011): 1091–1123; and Jason Grissom, Demetra Kalogrides, and Susanna Loeb, "Using Student Test Scores to Measure Principal Performance," *Educational Evaluation and Policy Analysis* 37, no. 1 (March 2015): 3–28.

5 See, e.g., Marcus A. Winters, Grant Clayton, and Dick M. Carpenter II, "Are Low-Performing Students More Likely to Exit Charter Schools? Evidence from New York City and Denver, Colorado," *Economics of Education Review* 56 (2017): 110–17.

6 See Stuit and Smith, "Teacher Turnover in Charter Schools."

7 Charter principals tend to face heavier workloads than TPS principals. See, e.g., Christine Campbell, "You're Leaving? Succession and Sustainability in Charter Schools," University of Washington, November 2010; and Christine Campbell and Betheny Gross, "Working Without a Safety Net: How Charter School Leaders Can Best Survive on the High Wire," University of Washington, September 2008.

8 Scores were adjusted to allow for comparisons with schools with similar demographic profiles.

9 To identify new principals, I created an Excel file that lists school principals by year. I then apply a conditional algorithm to identify observations where the name of the principal differs in adjacent years. Observations with identical principal names are coded as "no change." When observations are not identical, I inspect each to determine whether the flagged change was real or simply a change in how the name was recorded (e.g., different abbreviations of the same name).

10 If a school changed principals in the middle of the year, this would show up in our tally for school years before 2014–15 (where the comparison of principals is from the spring of one year to the spring of the following year) but not for 2014–15 and after (where the comparison of principals is from the spring of one year to the fall of the same year).

11 If the result had been produced by statistical noise due to small sample size, we would suspect to see large swings in turnover each year, not a sustained drop over several years.

12 See, e.g., Gregory F. Branch, Eric A. Hanushek, and Steven G. Rivkin, "School Leaders Matter: Measuring the Impact of Effective Principals," *Education Next* 13, no. 1 (Winter 2013): 62-69.

13 NYC Independent Budget Office, "Demographic Characteristics of Charter School Students."

14 The coefficients in Figure 4 have a different interpretation from those in the previous figures. In Figure 4, I use an interaction term to measure whether the relationship between performance and turnover differs for charters and TPS. However, estimates for models that interact performance with charters are imprecise—likely because they rely on a small number of observations of charter schools with particular letter grades.

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