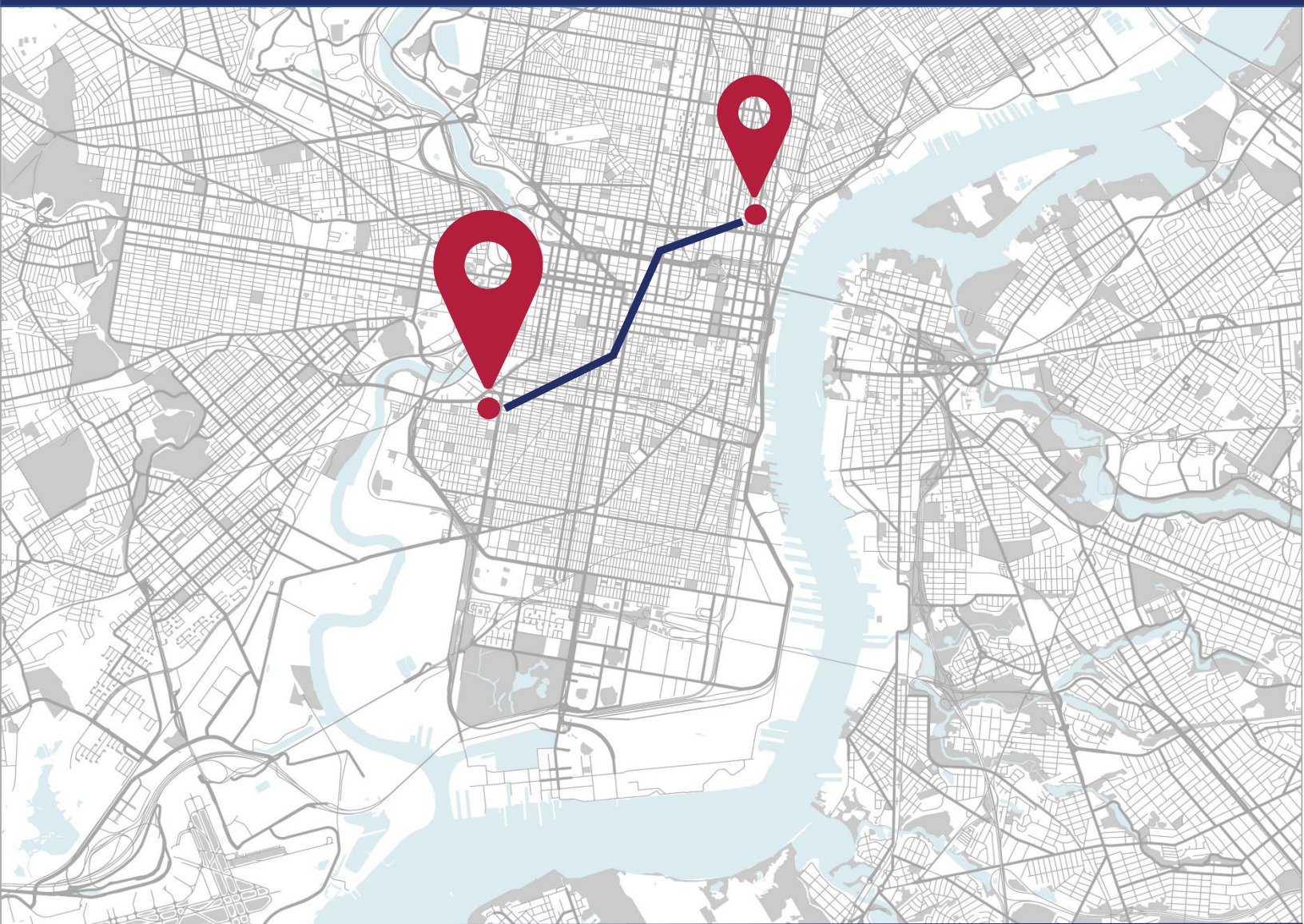


Principal Mobility in Philadelphia Traditional and Charter Public Schools, 2007-08 through 2015-16



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About PERC

The mission of the Philadelphia Education Research Consortium is to provide timely, actionable, rigorous, and non-partisan research on the most pressing issues facing Philadelphia public education. To do this, PERC seeks to engage the region's colleges and universities, nonprofits, and the Philadelphia public education sector in respectful, mutually beneficial research-practice partnerships. By providing Philadelphia's leaders and citizenry with high-quality information about progress, challenges, and effective strategies in education, PERC aims to increase education opportunities and achievement for all Philadelphia students. PERC is based at Research for Action, a nonprofit education research organization in Philadelphia.

Erratum

This version of the report has been updated to correct a typographical error. Table 2 now correctly indicates that 50 percent of principals who left for a principalship in another Pennsylvania school district were White.

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Principal Mobility in Philadelphia Traditional and Charter Public Schools, 2007-08 through 2015-16

Matthew P. Steinberg and Haisheng Yang • January 2019

Summary

Effective principals improve student achievement, develop and retain teacher talent, and manage the organization and mission of schools. Since principals become more effective over time, attracting and retaining excellent principals is a high priority for all school districts. But public school districts in large cities like Philadelphia are especially challenged to provide every school with an effective school leader. Principal mobility—that is, transferring from one school to another or leaving the principalship entirely—is disproportionately concentrated in school districts serving more low-income students and has negative consequences for student performance. For these reasons, it is critical for policymakers and school leaders in Philadelphia to have a clear picture of the extent and nature of principal mobility.

This report provides evidence on principal mobility among traditional public schools (TPS) in the School District of Philadelphia (SDP) and charter public schools located in Philadelphia during the 2007-08 through 2015-16 school years. The study uses individual-level data on all principals in traditional and charter schools provided by the Pennsylvania Department of Education. We describe the characteristics of principals in Philadelphia, the extent of principal mobility, and the characteristics of mobile principals and the schools that they exit.

For this report, principal mobility is defined as occurring when a traditional or charter school principal does not return to the same school the following year. By this definition, a mobile principal is one who moved to another school in Philadelphia (either a traditional or charter school), moved to a Pennsylvania public school outside of Philadelphia, exited the principalship (i.e., was employed in another role in education), or left public education in Pennsylvania.

Key findings

- **Principals in traditional public schools in Philadelphia are, on average, older, have more education experience, are more likely to be a racial minority, and earn higher salaries than charter school principals.**
- **Experience in Pennsylvania public education among traditional and charter school principals has, on average, declined over time.** From 2007-08 to 2015-16, average education experience of traditional public school principals declined from 22 years to 18 years. For charter school principals, experience declined from 18 years to 14 years.
- **Principal mobility is greater in the city's charter schools than in its traditional public schools.** Across the study period, the principal mobility rate was 24 percent in traditional public schools, compared to 35 percent in charter schools.
- **Principal mobility is greater among traditional public schools in Philadelphia than the Pennsylvania statewide average but comparable to other urban Pennsylvania districts.** Statewide in Pennsylvania, the principal mobility rate in traditional public schools was 19 percent during the study period; in contrast, the principal mobility rate in Pittsburgh and Philadelphia's traditional public schools was identical (24 percent).

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- **Mobile principals in Philadelphia are most likely either to remain in the same sector in Philadelphia or to exit Pennsylvania public education.** Among all mobile principals in Philadelphia traditional and charter schools, 27 percent remained in the same sector while 45 percent exited public education in Pennsylvania. An additional 22 percent of mobile principals exited the principalship while remaining in public education in Pennsylvania.
 - **Mobile principals in Philadelphia are concentrated in schools that serve higher-poverty, lower-achieving and minority students.**
 - **There are fewer novice principals in traditional public schools than charter schools.** Novice principals are in their first year as a principal in Pennsylvania public schools – traditional or charter – during or after the 2008-09 school year. Over the study period, 12 percent of TPS principals and 31 percent of charter principals were novice.
 - **Novice principals in traditional public schools have become younger, less racially diverse, and less experienced over time.** In contrast, there is little variation over time in the experience and racial composition of novice principals in charter schools.

Implications for policy and practice

- **The disproportionately high rate of principal mobility among Philadelphia schools serving the most economically and academically disadvantaged students is an area for ongoing attention.** Despite principal mobility rates that are similar to statewide averages and to other urban districts in Pennsylvania, our data show that principals at schools with the lowest achieving and most disadvantaged students are more mobile than their peers at schools with higher achieving and more advantaged students. These findings suggest that city and state leaders should identify ways to provide additional supports and resources to principals—particularly novice principals—who are working in schools that serve the most disadvantaged students in Philadelphia.
- **The higher rates of principal mobility and the concentration of novice principals in Philadelphia’s charter sector should inform policy choices among district and charter school leaders on the identification and retention of school leaders across sectors.** Since principal mobility is related to adverse student outcomes, and principal effectiveness improves with school leadership experience, there are concerns about how these patterns may shape the schooling climate in Philadelphia charter schools. Evidence on the extent of principal mobility and the high rate of novice principals in Philadelphia charter schools should compel school leaders to identify ways to attract and retain principals in charter schools in an effort to improve the schooling outcomes of charter students.
- **Relatively few principals exited Philadelphia for other public school districts in Pennsylvania—a fact that can inform district and charter policy choices related to principal recruitment and retention.** For any education agency, formulating a strategy to recruit and retain principals requires a clear understanding of the problem and a set of targeted responses. This report shows that principal departure to Pennsylvania public schools outside of Philadelphia was *not* a major part of the challenges that TPS and charter schools face around principal recruitment and retention.

Table of Contents

SUMMARY	III
Key findings.....	iii
Implications for policy and practice	iv
WHY THIS STUDY	1
WHAT THE STUDY EXAMINED	2
WHAT THE STUDY FOUND	5
<i>In Philadelphia, principals in traditional public schools (TPS) are, on average, older, have more experience in Pennsylvania public education, are more likely to be Black or Hispanic, and earn higher salaries than charter school principals.</i>	6
<i>Education experience among Philadelphia's traditional and charter school principals has, on average, declined over time.</i>	8
<i>In Philadelphia, principal mobility is greater in charter schools than in traditional public schools.</i>	9
<i>Principal mobility is greater among traditional public schools in Philadelphia than the Pennsylvania statewide average but is comparable to other urban Pennsylvania districts.</i>	10
<i>Mobile principals in Philadelphia are most likely either to remain in the same sector in Philadelphia or to exit public education in Pennsylvania.</i>	11
<i>There are notable differences in age and experience between principals who exit public education in Pennsylvania and other mobile principals.</i>	12
<i>Mobile principals in Philadelphia are concentrated in schools that serve higher-poverty and lower-achieving students and more minority students.</i>	13
<i>In Philadelphia, there are fewer novice principals in traditional public schools than in charter schools.</i>	15
<i>Novice principals in Philadelphia's traditional public schools have become younger, less racially diverse, and less experienced over time. Characteristics of charter school novice principals are more consistent over time.</i>	17
IMPLICATIONS FOR POLICY AND PRACTICE	20
LIMITATIONS & FURTHER RESEARCH.....	20
APPENDIX A: ADDITIONAL TABLES.....	21

Why this study

Effective principals improve student achievement, develop and retain teacher talent, and manage the organization and missions of schools.¹ Since principals become more effective over time,² attracting and retaining excellent principals is a high priority for all school districts. Yet large traditional public school districts like Philadelphia are especially challenged to identify and provide effective leadership to all of their schools. Concerns about the provision of effective principals are even more pronounced in cities like Philadelphia that have a robust charter school sector alongside their traditional public schools.

Principals who transfer to another school, either within their current district or elsewhere, or who leave the profession are called *mobile principals* (see definitions box on this page). Nationally, 18 percent of principals were mobile in the 2015-16 school year; among traditional public schools, 17.5 percent of principals were mobile compared to 21.7 percent of principals in charter public schools.³ In schools where more than 75 percent of students were low-income (i.e., were eligible for free/reduced-price lunch), the principal mobility rate in 2015-16 was 21 percent; this compares to a principal mobility rate of 15 percent in low-poverty schools where less than 35 percent of students were low-income.⁴

Why principal mobility matters. Some principal mobility is normal—for example, when principals retire. And some mobility is beneficial to schools and students, such as when less-effective principals vacate their positions in place of more effective school leaders.

However, there are a number of reasons to be concerned about the extent of principal mobility. First, recent research has shown that, on average, principal mobility negatively affects student achievement. On average, student achievement falls after a principal leaves and does not fully recover until five years after a new principal arrives.⁵ The decline in student achievement following a principal's departure, however, is less severe when the replacement principal has prior school leadership experience.⁶

Definitions

Mobile principals. In this report, a *mobile principal* is one who does not return to the same school in the following year.

Principal mobility. In this report, the term *principal mobility* refers to principal exit from the school to any destination, including another traditional school in SDP, a Philadelphia charter school, another Pennsylvania public school, or exit from the public education workforce in Pennsylvania. Other research has used the term *principal turnover* to describe this phenomenon.

¹ Coelli, M., & Green, D. A. (2012). Leadership effects: School principals and student outcomes. *Economics of Education Review*, 31(1), 92-109.; Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27-42.

² Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2013). School leaders matter. *Education Next*, 13(1), 62-69.

³ Taie, S., & Goldring, R. (2018). *Principal Attrition and Mobility: Results From the 2016–17 Principal Follow-up Survey First Look*. NCES 2018-066. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

⁴ Taie, S., & Goldring, R. (2018). *Principal Attrition and Mobility: Results From the 2016–17 Principal Follow-up Survey First Look*. NCES 2018-066. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

⁵ Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, 36, 60-72.

⁶ Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, 41(4), 904-919.

Second, retaining effective school leaders improves teacher satisfaction and reduces teacher mobility.⁷ In schools serving more economically disadvantaged students, the role of effective school leaders is even more pronounced. In fact, staffing a school serving more economically disadvantaged students with an effective principal reduces teacher mobility more than in schools that serve more advantaged students.⁸ And schools with novice principals—those in their first year of principalship in Pennsylvania—have higher teacher mobility and exit rates than schools with more experienced principals.⁹

Third, the consequences of principal mobility for student achievement and teacher mobility are more pronounced in schools with higher rates of student poverty. Principal mobility is more common at schools with higher percentages of low-income students.¹⁰ As a result, low-income schools experience more teacher mobility, which in turn decreases student achievement.¹¹ Taken together, this means that schools with a higher percentage of low-income students disproportionately experience both principal and teacher mobility, both with negative consequences for student achievement.

No prior evidence on principal mobility in Philadelphia. The motivation for this report is to provide basic information about the principalship, with a particular focus on principal mobility, that has not been publicly available in Philadelphia. Though prior work has examined teacher mobility in Philadelphia,¹² this report offers the first systematic investigation of principal mobility in Philadelphia, both overall and across the traditional and charter school sectors. Such information can be useful to inform district and state policymakers.

What the study examined

This study describes the characteristics of principals in Philadelphia in both the traditional and charter school sectors and examines the percentage of traditional and charter public school principals who were mobile—that is, who did not return in the following year to the school where they had been principal—from the 2007-08 through 2015-16 school years. The study also examines the percentage of these mobile principals who, in the following school year, were employed as a principal in another school in Philadelphia (either traditional or charter), were employed as a principal in another Pennsylvania public school, exited the principalship (i.e., were employed in another role in education but not as a principal), or exited Pennsylvania’s public education sector entirely. We then examine key characteristics of mobile principals and the characteristics of the schools they exited. Finally, we examine the distribution and characteristics of novice principals across traditional and charter schools.

⁷ Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, 113(11), 2552-2585.

⁸ Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, 113(11), 2552-2585.

⁹ Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, 41(4), 904-919.

¹⁰ Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2013). School leaders matter. *Education Next*, 13(1), 62-69.

¹¹ Atteberry, A., Loeb, S., & Wyckoff, J. (2017). Teacher churning: Reassignment rates and implications for student achievement. *Educational Evaluation and Policy Analysis*, 39(1), 3-30.

¹² Steinberg, M., Neild, R., Canulette, W.K., Park, S., Schulman, E., & Wright, M. (2018). *Teacher mobility in the School District of Philadelphia, 2009-10 through 2015-16*. Philadelphia: The Philadelphia Education Research Consortium.

The research questions are:

- What are the characteristics of principals in Philadelphia traditional and charter public schools?
- What percentage of traditional and charter school principals exited their schools?
- Among principals who exited their schools, what percentage:
 - Moved to another Philadelphia school – either traditional or charter?
 - Moved to a Pennsylvania public school outside of Philadelphia?
 - Exited the principalship but remained in public education in Pennsylvania?
 - Exited public education in the state of Pennsylvania?
- What were the characteristics of mobile principals?
- What were the characteristics of the schools that mobile principals exited?
- What percentage of traditional and charter school principals are novice principals? What are the characteristics of novice principals?

To answer these questions, the study team used personnel records and school-level information provided by the Pennsylvania Department of Education (PDE). The data included principal- and school-level data, including principals' school assignments for the 2007-08 through 2016-17 academic years (see Box 1 for a description of the data and principal- and school-level variables). In all, the study included 800 unique individuals who were ever a principal in either a traditional or charter public school in Philadelphia during the study period.¹³

Until now, we have not had the data to understand the extent of principal mobility in the traditional and charter public school sectors in Philadelphia. This report fills this gap by using individual-level data provided by the Pennsylvania Department of Education to examine multiple types of mobility among principals during the 2007-08 through 2015-16 school years.

¹³ During the study period, there were 530 principals in traditional public schools and 292 principals in charter public schools. The count of principals across traditional and charter school sectors does not sum to 800 unique individuals since 22 were principals in both a traditional and a charter public school during the study period.

Box 1

Data and Variables

The study uses individual- and school-level data for principals in the traditional and charter public school sectors in Philadelphia during the 2007-08 through 2015-16 school years. The data span the time period 2007-08 through 2016-17. The study includes 800 principals (3,021 principal*year observations). Personnel records and school-level information were provided to the researchers by the Pennsylvania Department of Education (PDE).

Principal-level data include:

School and district: A principal's school code and district code.

Age: A principal's age.

Gender: A principal's gender.

Race or ethnicity: A principal's race or ethnicity (White, Black, Hispanic, other).

Years of experience (PA): A principal's total number of years of experience in public education in Pennsylvania.

Salary: A principal's annual salary, as reported by PDE. Nominal dollars were adjusted to September 2016 dollars using the Bureau for Labor Statistics Consumer Price Index.

School-level data include:

Enrollment: Total student enrollment in a school.

Achievement: The percentage of a school's tested students who were academically proficient (or advanced) in mathematics on either the Pennsylvania System of School Assessment (PSSA) math exam or the Algebra I Keystone exam. PSSA mathematics is administered to students in grades 3-8 (and grade 11 in years prior to the 2012-13 school year); Algebra I Keystone exam is administered at least once to high school students (i.e., grades 9-12) beginning in the 2012-13 school year.

Poverty: The percentage of students in a school who receive government benefits (e.g., SNAP, TANF).

Black or Hispanic: The percentage of students identified as Black or Hispanic in a school.

Box 2

Methods

The study team received detailed, individual-level data for all personnel in traditional and charter public schools in Philadelphia from the Pennsylvania Department of Education (PDE). From these personnel files, the study team constructed a principal-level analytic file that included all principals ever serving in traditional and charter public schools during the 2007-08 through 2015-16 school years. The data set includes 3,021 principal*year observations.

PDE also provided detailed student-level data for all students in traditional and charter public schools in Philadelphia. From these student-level files, the study team constructed the following school-level aggregates: (i) enrollment; (ii) achievement; (iii) poverty; and (iv) racial/ethnic minority (see Box 1). The study team calculated quartiles of these four school-level measures for the 2007-08 through 2015-16 school years.

From the principal-level analytic file, we categorized principals into one of six discrete pathways at the end of each of the 2007-08 through 2015-16 school years, based on whether and where we observed principals in the following school year. These pathways include:

1. **Non-mobile principal:** These principals returned, as principals, to the same schools in the following school year.
2. **Transferred to another Philadelphia school within their education sector (Stayed in Sector):** These principals were employed as principals by a different school in the same sector (traditional or charter) in Philadelphia in the following year.
3. **Transferred to another Philadelphia school across education sectors (Switched Sectors):** These principals were employed as principals by a school in the other sector (traditional or charter) in Philadelphia in the following year.
4. **Transferred to a Pennsylvania public school outside Philadelphia (Exited Philadelphia):** These principals were employed as principals by a school district located outside the City of Philadelphia in the following year.
5. **Transferred to another role in public education in Pennsylvania (Exited Principalship):** These principals were employed in public education in Pennsylvania in the following year but held a role other than the principalship (e.g., classroom teacher, assistant principal).
6. **Exited public education in Pennsylvania:** These principals were no longer in public education in Pennsylvania in the following year.

What the study found

In Philadelphia, principals in traditional public schools (TPS) are, on average, older, have more experience in Pennsylvania public education, are more likely to be Black or Hispanic, and earn higher salaries than charter school principals.

Across the study period, TPS principals were, on average, 50 years old, compared to principals in charter schools who were, on average, 43 years old. TPS principals had more years of education experience in Pennsylvania (21 years) than charter school principals (15 years). Fifty-eight percent of TPS principals were Black or Hispanic, compared to 47 percent of charter school principals. On average across the study period, TPS principals earned higher annual salaries – approximately \$128,000 – than charter principals, who earned approximately \$108,000 (Table 1).

Notably, TPS principals earned higher salaries than charter principals at every level of experience (Figure 1). For example, among Philadelphia principals with five or fewer years of experience in Pennsylvania public education, those who led traditional public schools earned approximately \$124,000, while those leading charter schools earned approximately \$106,000. Similar gaps were evident for principals with 6-10 and 11-15 years of experience.

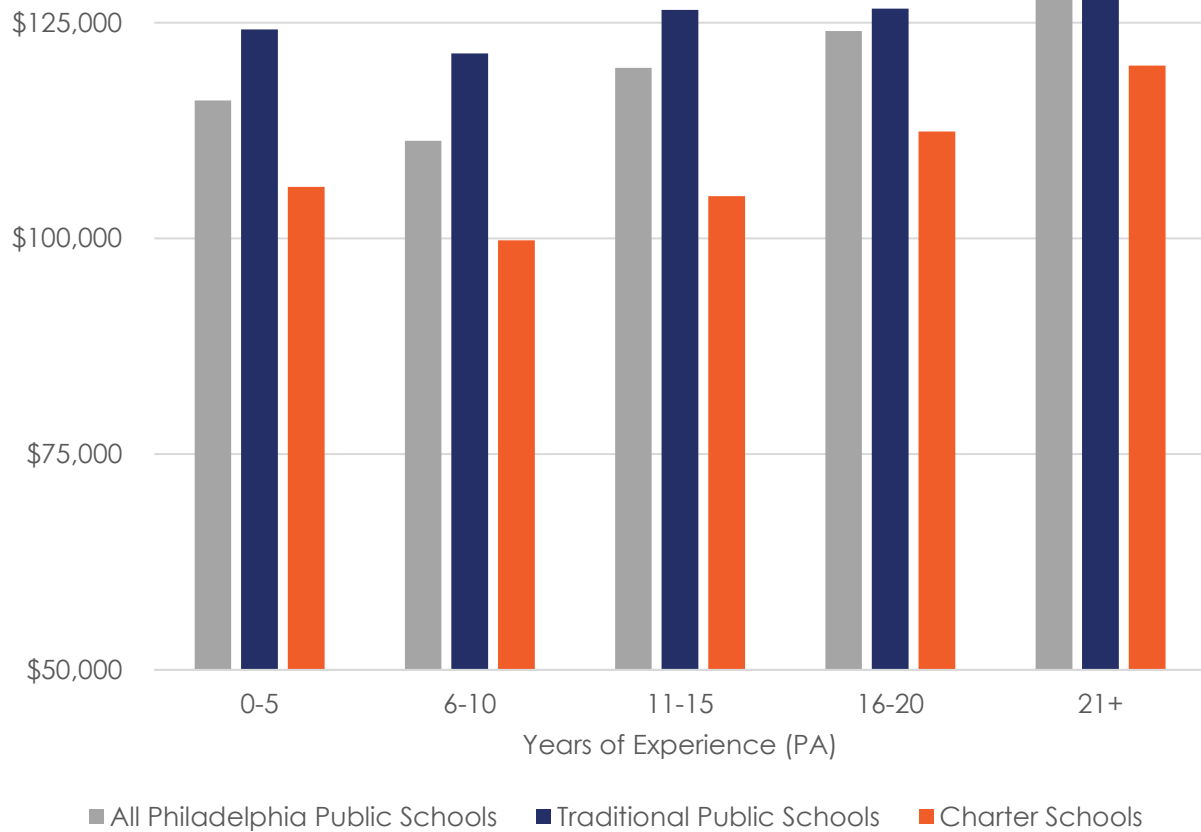
Table 1. Characteristics of Philadelphia Principals, by Sector

	All principals	SECTOR	
		Traditional public schools	Charter schools
Mean age (standard deviation in parentheses)	48.5 (10.2)	50.2 (9.1)	43.3 (11.5)
Percent female	66%	68%	60%
Percent White	43%	40%	50%
Percent Black	49%	52%	40%
Percent Hispanic	6%	6%	7%
Percent other race or ethnicity	2%	2%	3%
Mean annual salary in 2016 dollars (standard deviation in parentheses)	\$123,032 (\$19,906)	\$127,724 (\$15,369)	\$108,392 (\$24,763)
Years of education experience (PA) (standard deviation in parentheses)	19.2 (10.3)	20.5 (9.7)	15.3 (11.0)
Principal*Year Observations	3,021	2,262	759
Principals	800	530	292
Schools	374	284	90

Notes: Sample includes unique principal*year observations, for the 2007-08 through 2015-16 school years, for principals located in K-12 schools. Table reports mean (standard deviation), except for gender (*Female*) and race/ethnicity, which is reported in percentages. Principal counts across sectors sum to more than the unique count of principals because principals can be observed in both charter and traditional public schools across the study period (e.g., a principal can be observed in a charter school in 2011-12 and then observed in a traditional public school in 2012-13). Years of Experience (PA) is the number of years of education experience in the state of Pennsylvania. Salary is a principal's annual salary inflation adjusted to September 2016 dollars.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Figure 1. Philadelphia Principal Salary, by Experience and Sector



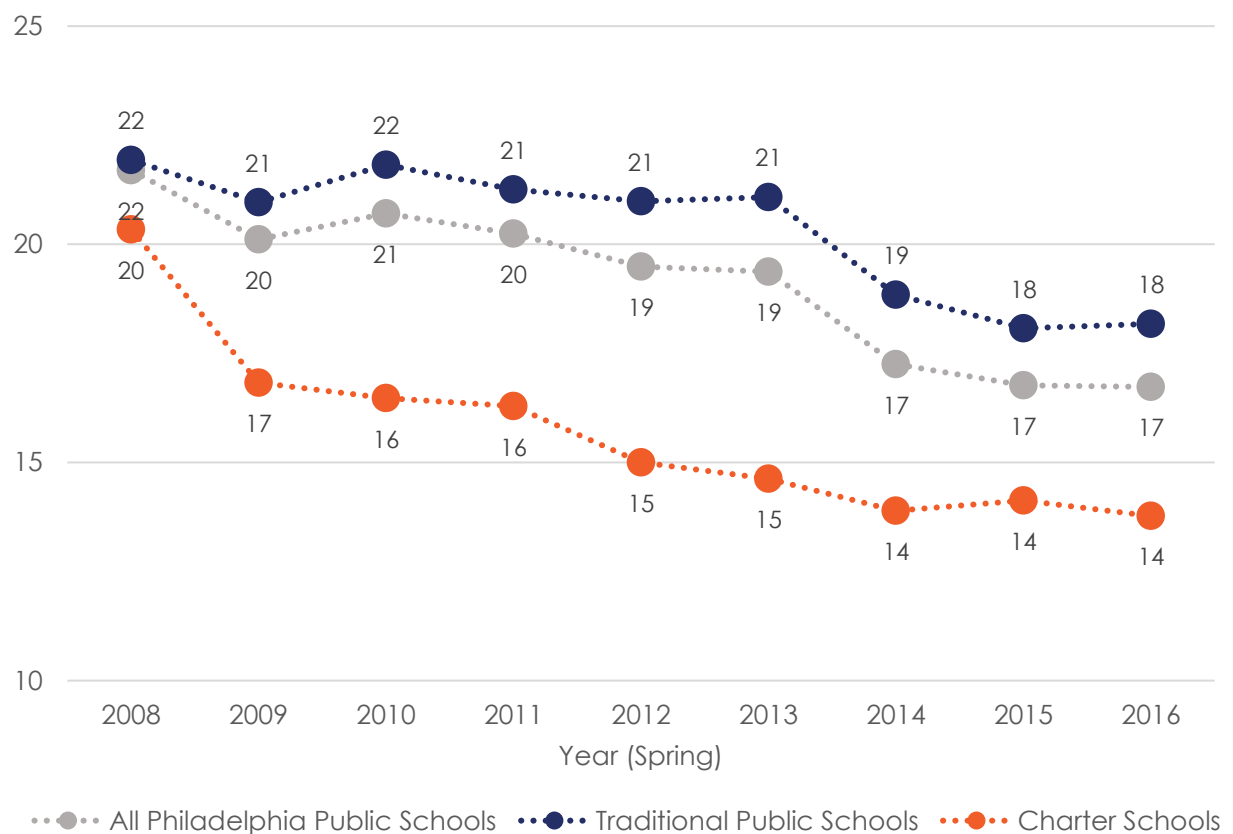
Notes: The mean (standard deviation) annual salary for all Philadelphia principals, by years of experience, is \$115,976 (\$21,998.38) for 0-5 years of experience; \$111,333 (\$21,497.98) for 6-10 years of experience; \$119,784 (\$20,446.00) for 11-15 years of experience; \$124,026 (\$17,426.79) for 16-20 years of experience; and \$128,886 (\$17,468.34) for 21+ years of experience. The mean (standard deviation) annual salary for TPS principals, by years of experience, is \$124,225 (\$16,530.52) for 0-5 years of experience; \$121,444 (\$16,013.12) for 6-10 years of experience; \$126,468 (\$15,264.74) for 11-15 years of experience; \$126,641 (\$14,827.44) for 16-20 years of experience; and \$130,229 (\$14,878.50) for 21+ years of experience. The mean (standard deviation) annual salary for charter principals, by years of experience, is \$105,987 (\$23,661.91) for 0-5 years of experience; \$99,788 (\$21,179.70) for 6-10 years of experience; \$104,904 (\$22,603.28) for 11-15 years of experience; \$112,408 (\$22,692.41) for 16-20 years of experience; and \$120,030 (\$27,779.10) for 21+ years of experience. All dollars are inflation adjusted to September 2016 dollars.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Education experience among Philadelphia's traditional and charter school principals has, on average, declined over time.

In the 2007-08 school year, Philadelphia's traditional public school principals had, on average, 22 years of experience in Pennsylvania public education, and charter school principals had, on average, 20 years of experience (Figure 2). In the 2015-16 school year, traditional public school principals had, on average, 18 years of educational experience and charter school principals had, on average, 14 years of educational experience. For traditional public schools, principal experience declined after the 2012-13 school year and has not recovered; for charter schools, principal experience declined notably after 2007-08 and showed a gradual downward trend in the following years.

Figure 2. Philadelphia Principals' Years of Experience in Pennsylvania Public Education, by Sector



Note: Figure reports the mean years of experience in Pennsylvania public education across the 2008-09 through 2015-16 period for principals in traditional public schools (TPS), charter schools, and all Philadelphia public schools.

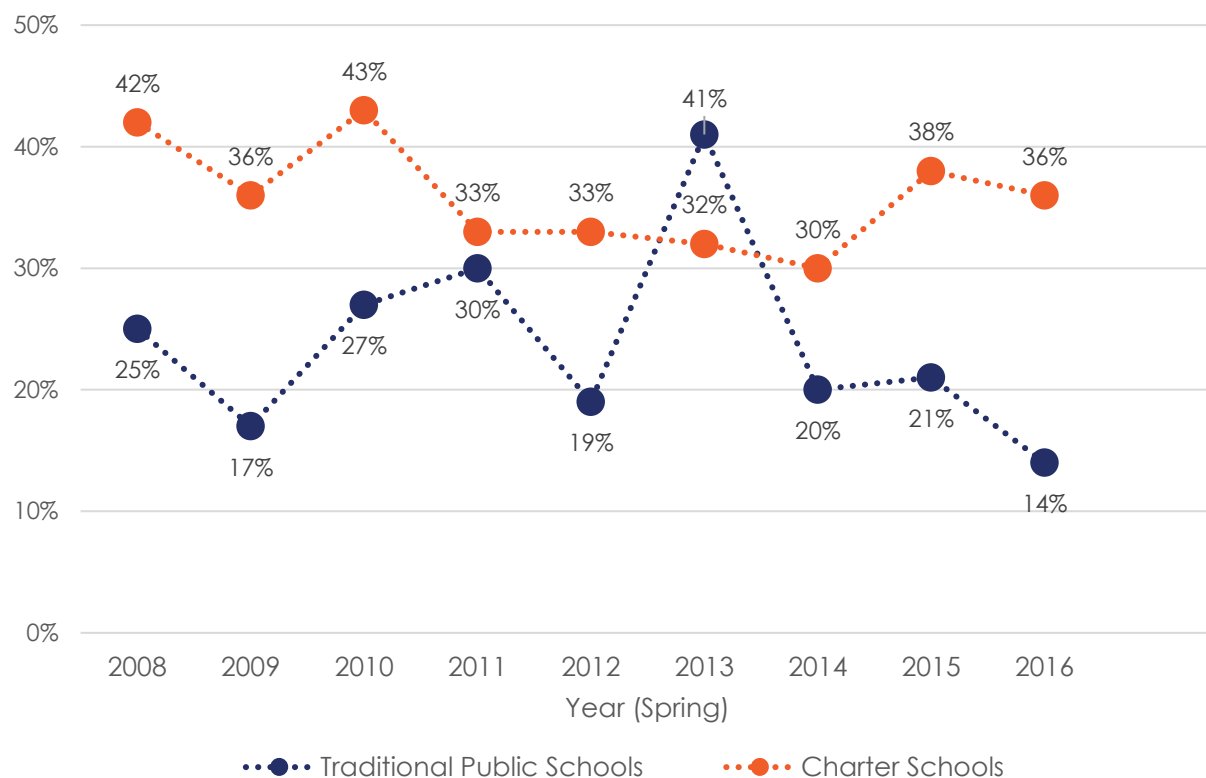
Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

In Philadelphia, principal mobility is greater in charter schools than in traditional public schools.

Across the study period, the TPS principal mobility rate was 24 percent; in charter schools, the principal mobility rate was 35 percent (Figure 3). This means that, on average across the study period, 24 percent of TPS principals exited TPS schools, while 35 percent of charter principals, on average, annually exited charter schools. The spike in TPS principal mobility in the 2012-13 school year (to 41 percent) was likely related to the district's major round of TPS school closings.

Within sector, mobile and non-mobile principals differ little in their demographic characteristics, years of educational experience, and annual salary, with the exception that mobile principals in both TPS and charter schools are more likely to be Black than non-mobile principals (Table A1 provides a comparison of the characteristics of mobile and non-mobile principals, by sector; Table A2 summarizes the schools, by sector, that most frequently experienced principal mobility during the study period).

Figure 3. Percentage of Philadelphia Principals Who Were Mobile, by Sector



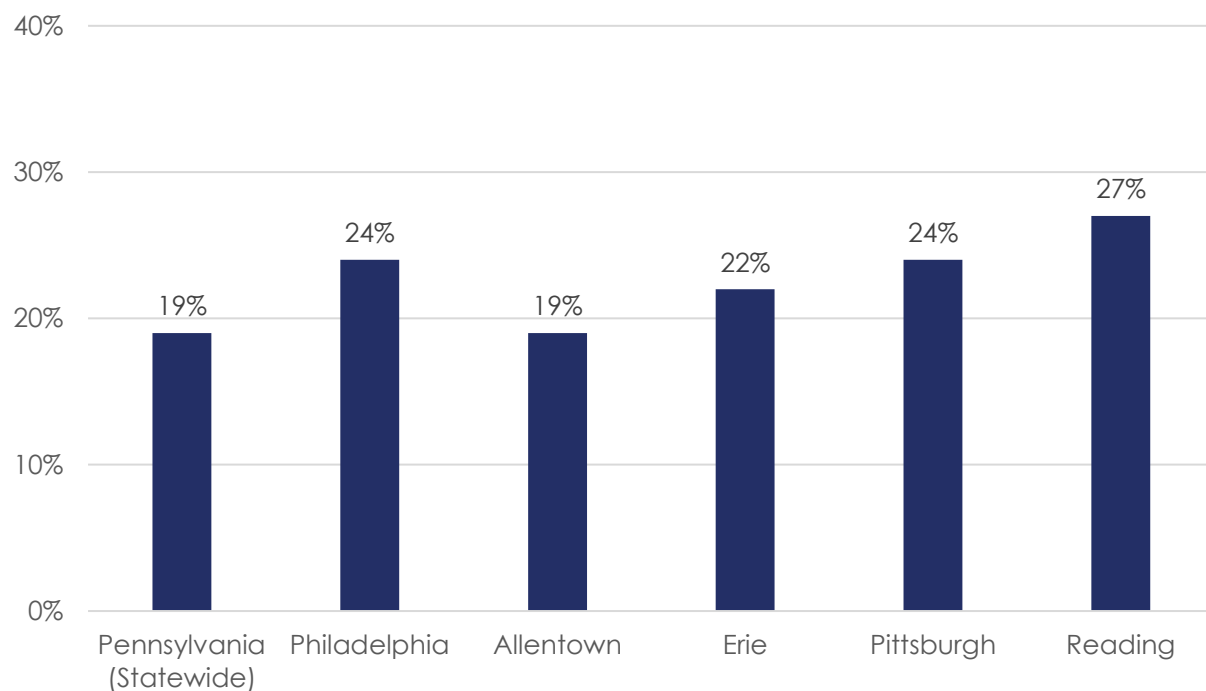
Notes: Figure reports the principal mobility rate in each year. Mobility is defined as not observing a principal in the same school at time $t+1$ as s/he was a principal at in time t . The overall mobility rates for all Philadelphia public schools were 27% (2008); 21% (2009); 31% (2010); 31% (2011); 23% (2012); 38% (2013); 23% (2014); 26% (2015); 21% (2016).

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Principal mobility is greater among traditional public schools in Philadelphia than the Pennsylvania statewide average but is comparable to other urban Pennsylvania districts.

Statewide in Pennsylvania, the principal mobility rate across the study period in traditional public schools was 19 percent; the TPS principal mobility rate in Pittsburgh and Philadelphia are identical – 24 percent (Figure 4). Table A3 summarizes the annual TPS mobility rate for Pennsylvania statewide, Philadelphia, Allentown, Erie, Pittsburgh, and Reading for each year in the study period. For annual mobility rates for the state and these districts, see Table A-1 in the appendix to this report.

Figure 4. Percentage of Pennsylvania Principals Who Were Mobile (Statewide and Urban District Comparison)



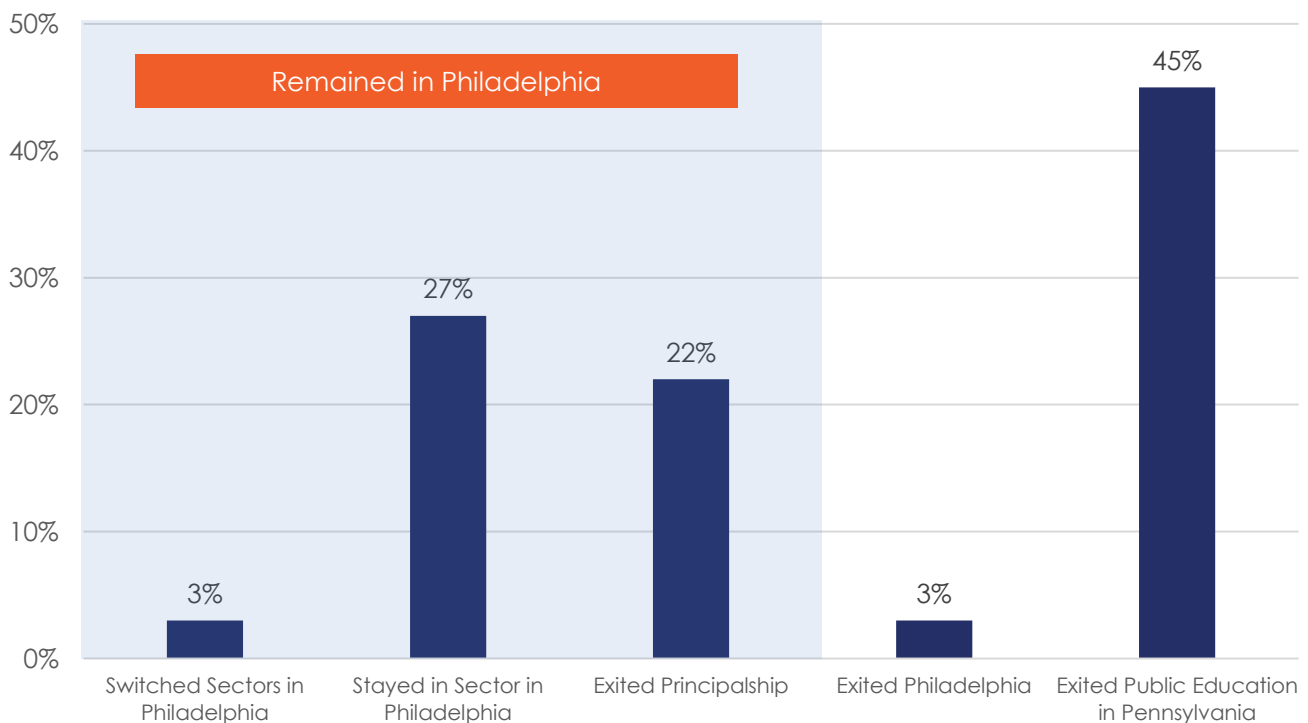
Notes: *Mobility Rate* is the overall mobility rate - the average mobility rate across the study period - among traditional public school (TPS) principals. Mobility is defined as not observing a principal in the same school at time $t+1$ as s/he was a principal at in time t .

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Mobile principals in Philadelphia are most likely either to remain in the same sector in Philadelphia or to exit public education in Pennsylvania.

Among all mobile principals in Philadelphia traditional and charter schools, 27 percent remained in the same sector while 45 percent exited public education in Pennsylvania (Figure 5). An additional 22 percent of mobile principals exited the principalship while remaining in public education in Pennsylvania. Table A-2 shows the destinations for mobile principals for each year during the study period.

Figure 5. Destinations for Mobile Philadelphia Principals



Notes: Figure shows the percent of principals who were mobile in any year during the 2007-08 through 2015-16 period who were either: (i) employed as principals by a different school in the same sector (traditional or charter) in Philadelphia in the following year (*Stayed in Sector*); (ii) employed as principals by a school in the other sector (traditional or charter) in Philadelphia in the following year (*Switched Sectors*); (iii) employed as principals by a school district located outside the city of Philadelphia in the following year (*Exited Philadelphia*); (iv) employed in public education in Pennsylvania in the following year but held a role other than the principalship (e.g., classroom teacher, assistant principal) (*Exited Principalship*); or (v) no longer in public education in Pennsylvania in the following year (*Exited Public Education in PA*).

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Among the 22 percent of mobile principals who exited the principalship but remained in Pennsylvania public education, 26 percent became assistant principals in the next year; 17 percent became classroom teachers; 2 percent went on to central office roles; 37 percent went on to other roles (e.g., supervisory roles, teacher coaches, director positions, school nurses, etc.); and 18 percent held more than one of these role in the next year.

The vast majority (88 percent) of the mobile principals who exited the principalship but who took on other roles in Pennsylvania public education remained in Philadelphia public schools.

There are notable differences in age and experience between principals who exit public education in Pennsylvania and other mobile principals.

Philadelphia principals who exit public education in Pennsylvania are older (53 years, on average) and have more experience in Pennsylvania public education (23 years of service, on average) than other mobile principals.

Among principals who are mobile within Philadelphia (i.e., Switched Sectors or Stayed in Sector), those who stay in the same sector are older, more likely to be female, more likely to be Black, and have more years of experience (Table 2). For characteristics of mobile principals by sector, see Table A-3 in the appendix to this report.

Table 2. Characteristics of Mobile Principals, by Destination

	Switched Sectors	Stayed in Sector	Exited Philadelphia	Exited Principalship	Exited Public Education in PA
Mean age (standard deviation in parentheses)	44.4 (10.9)	47.6 (9.1)	44.4 (8.5)	44.9 (10.2)	53.4 (11.1)
Percent female	38%	65%	57%	65%	64%
Percent White	29%	31%	50%	42%	43%
Percent Black	50%	64%	39%	48%	49%
Percent Hispanic	21%	4%	7%	9%	5%
Percent other race or ethnicity	<1%	1%	4%	1%	2%
Mean annual salary in 2016 dollars (standard deviation in parentheses)	\$123,034 (\$17,942)	\$126,622 (\$17,446)	\$122,456 (\$16,599)	\$112,890 (\$27,117)	\$125,404 (\$24,299)
Years of education experience (PA) (standard deviation in parentheses)	15.2 (10.6)	17.9 (8.5)	14.7 (8.5)	15.5 (9.0)	22.9 (12.6)
Percentage of All Mobile Principals (2007-08 through 2015-16)	3%	27%	3%	22%	45%

Notes: Table reports mean (standard deviation), except for gender (*Female*) and race/ethnicity, which reports percentages. Years of Experience (PA) is the number of years of educational experience in the state of Pennsylvania. Salary (\$2016) is a principal's annual salary inflation adjusted to September 2016 dollars. *Switched Sectors* includes mobile principals who were employed as principals by a school in the other sector (traditional or charter) in Philadelphia in the following year; *Stayed in Sector* includes mobile principals who were employed as principals by a different school in the same sector (traditional or charter) in Philadelphia in the following year; *Exited Philadelphia* includes principals who were employed as principals by a Pennsylvania school district located outside the city of Philadelphia in the following year; *Exited Principalship* includes principals who were employed in public education in Pennsylvania in the following year but held a role other than the principalship (e.g., classroom teacher, assistant principal); and *Exited Public Education in PA* includes principals who were no longer in public education in Pennsylvania in the following year. Across the study period, there were 815 principal*year observations that were mobile, which included 633 unique principals across 355 schools.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Mobile principals in Philadelphia are concentrated in schools that serve higher-poverty and lower-achieving students and more minority students.

In schools serving the most students in poverty (those schools with an average poverty rate of 99 percent), 33 percent of principals were mobile (Figure 6). This compares to a principal mobility rate of 24 percent in schools serving the fewest students in poverty (an average poverty rate of 56 percent).

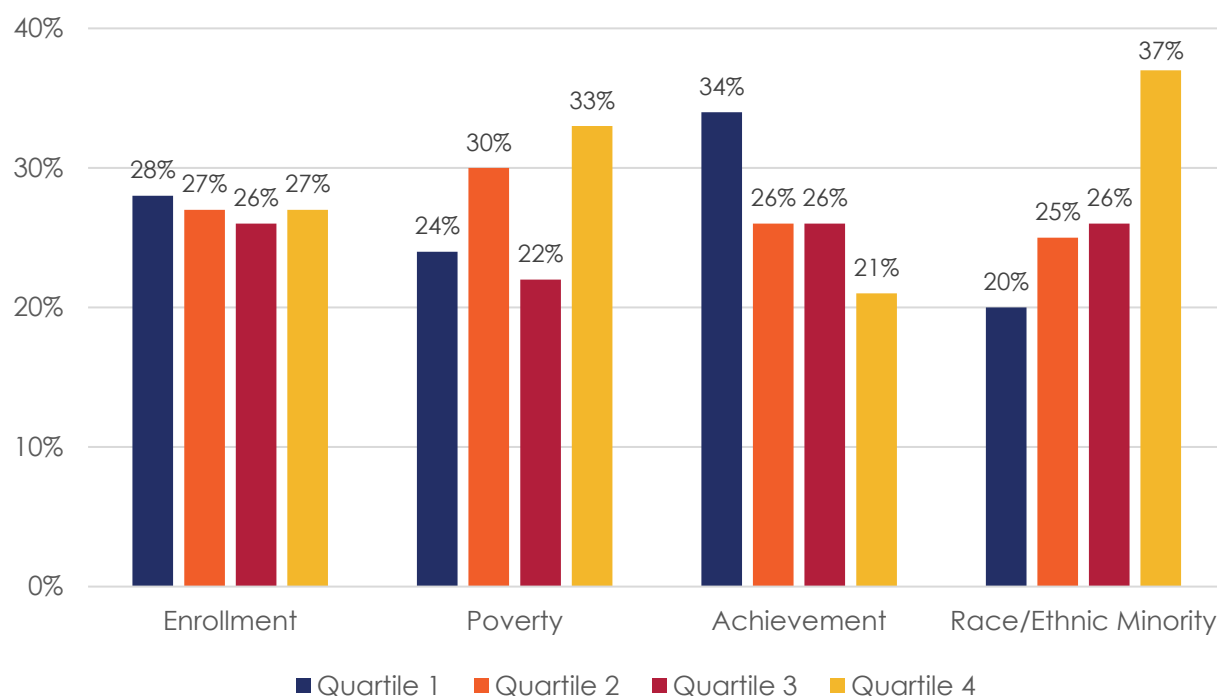
In schools serving the fewest academically proficient students (those schools with 20 percent of students, on average, achieving academic proficiency in math), 34 percent of principals were mobile. This compares to a principal mobility rate of 21 percent in schools serving the most academically proficient students (where 65 percent, on average, achieved academic proficiency in mathematics).

In schools serving the most racial/ethnic minority students (those schools with an average of 99 percent of students identified as Black or Hispanic), the principal mobility rate across the study period was 37 percent. This compares to a principal mobility rate of 20 percent in schools serving the fewest racial/ethnic minority students (those schools with 41 percent of students, on average, identified as Black or Hispanic).

For school enrollment, the principal mobility rate varies little across quartiles.

The traditional public schools and charter schools with the highest principal mobility rates during the study period are presented by sector in Table A-4 in the appendix to this report.

Figure 6. Philadelphia Principal Mobility Rate, by School Characteristics



Notes: Figure reports the overall mobility rate across the study period – 2007-08 through 2015-16 school years – by quartile of school characteristics. *Enrollment* is the number of students attending the school; *Poverty* is the percentage of students in a school who receive government benefits (e.g., SNAP, TANF); *Achievement* is the percentage of a school's tested students who were academically proficient (or advanced) in math; and *Race/Ethnic Minority* is the percentage of students in a school identified as Black or Hispanic. The first quartile includes schools with the lowest 25% of values; the fourth quartile includes schools with the highest 25% of values. For *Enrollment*, the mean (standard deviation) by quartile is: Q1=320.2 (90.5); Q2=489.7 (100.1); Q3=651.0 (104.6); and Q4=1125.3 (444.2). For *Poverty*, the mean (standard deviation) by quartile is: Q1=56% (18%); Q2=85% (12%); Q3=98% (4%); and Q4=99% (2%). For *Achievement*, the mean (standard deviation) by quartile is: Q1=20% (15%); Q2=37% (18%); Q3=46% (21%); and Q4=65% (21%). For *Race/Ethnic Minority*, the mean (standard deviation) by quartile is: Q1=41% (17%); Q2=84% (8%); Q3=95% (2%); and Q4=99% (1%).

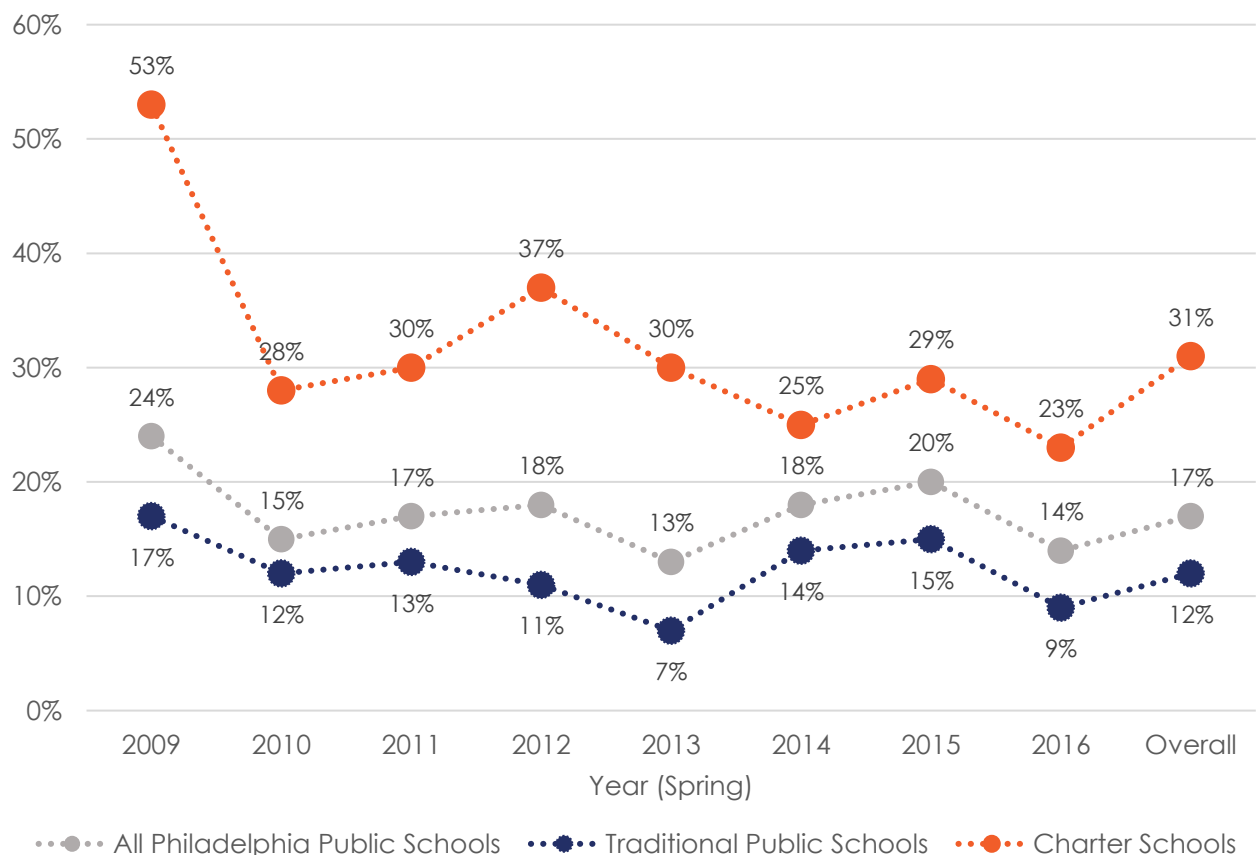
Source: Authors' calculations from personnel and school data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

In Philadelphia, there are fewer novice principals in traditional public schools than in charter schools.

Because higher rates of principal mobility could result in more novice principals who are in their first year as a principal in Pennsylvania public schools, we examined the percentage of principals who were brand-new to the principalship in Pennsylvania during or after the 2008-09 school year. We found that, on average over the study period, each year 12 percent of TPS principals were novice and 31 percent of charter principals were novice.

In the year prior to becoming principals in traditional public schools, 43 percent of novice principals served as assistant principals, 20 percent were classroom teachers, 19 percent held other roles in education, 1 percent had more than one role, and 17 percent were not observed in a prior role in public education in Pennsylvania. In the year prior to becoming principals in the charter sector, 27 percent of novice principals were assistant principals, 18 percent were classroom teachers, 22 percent held other roles in education, 2 percent had more than one role, and 31 percent were not observed in a prior role in Pennsylvania public education.

Figure 7. Percentage of Novice Principals in Philadelphia Public Schools, by Sector

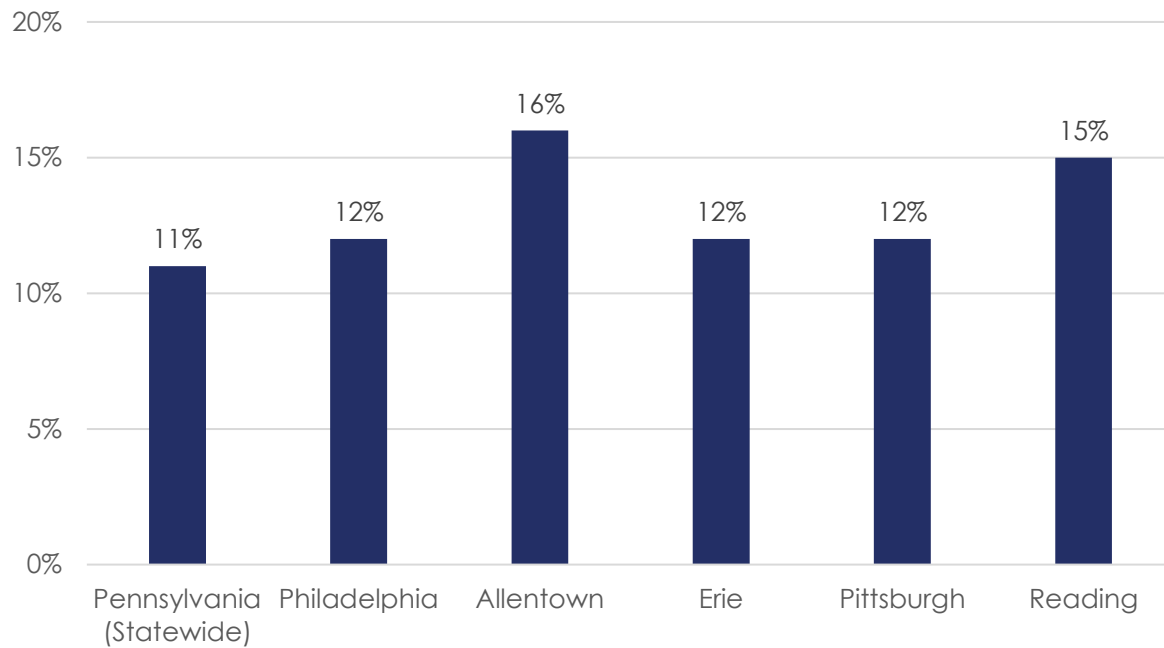


Notes: Figure shows the percent of novice principals among traditional public schools (TPS), charter schools, and all Philadelphia public schools. Novice principals are in their first year as principals in Pennsylvania public schools (traditional or charter schools) from 2008-09 – 2015-16.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Across the study period, the novice TPS principal rate in Philadelphia (12 percent) is similar to the Pennsylvania statewide average (11 percent) and to that of other urban districts in Pennsylvania (Figure 8). Indeed, the novice TPS principal rate in Philadelphia is identical over the study period to the novice TPS principal rate in Pittsburgh and Erie (12 percent), and slightly lower than the novice TPS principal rate in Reading (15 percent) and Allentown (16 percent).

Figure 8. Percentage of Principals Who Were Novice in Pennsylvania, Statewide and Urban District Comparison (Traditional Public Schools Only)



Notes: Figure shows the overall novice principal rate across the 2008-09 through 2015-16 period among traditional public school (TPS) principals. Novice principals are in their first year as principals in Pennsylvania public schools during or after the 2008-09 school year.

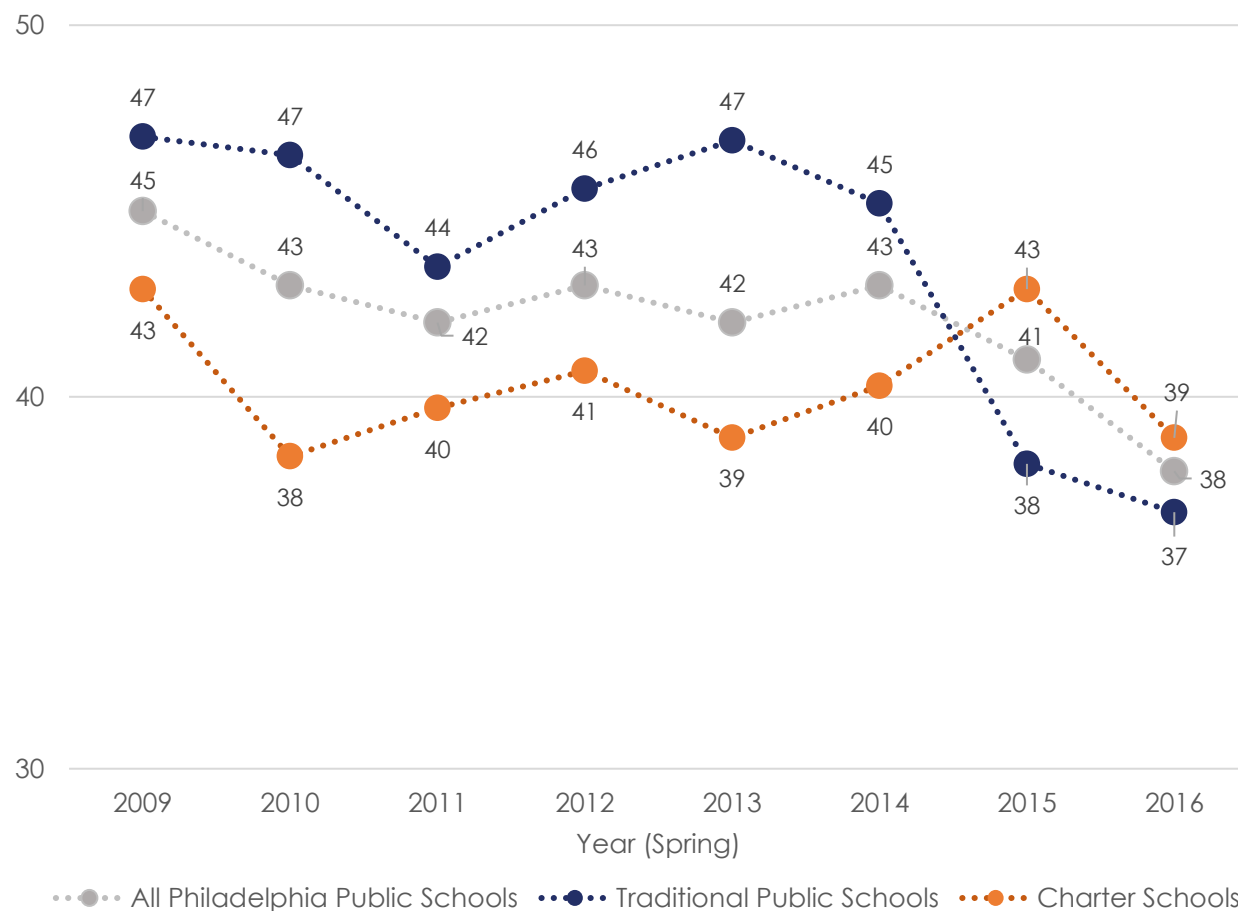
Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Novice principals in Philadelphia's traditional public schools have become younger, less racially diverse, and less experienced over time. Characteristics of charter school novice principals are more consistent over time.

In 2008-09, novice TPS principals were, on average, 47 years old (Figure 9) and had 16 years of experience in Pennsylvania public education (Figure 10). Seventy-one percent of novice TPS principals were Black or Hispanic. By 2015-16, novice TPS principals were, on average, 37 years old and had 10 years of education experience in Pennsylvania, and 45 percent of novice TPS principals were a racial/ethnic minority (i.e., black or Hispanic).

In contrast, except for one dip in the percentage of novice principals who were Black or Hispanic in 2012-13, there is little variation over time in the age, experience, and racial composition of novice principals in charter schools (Figure 11).

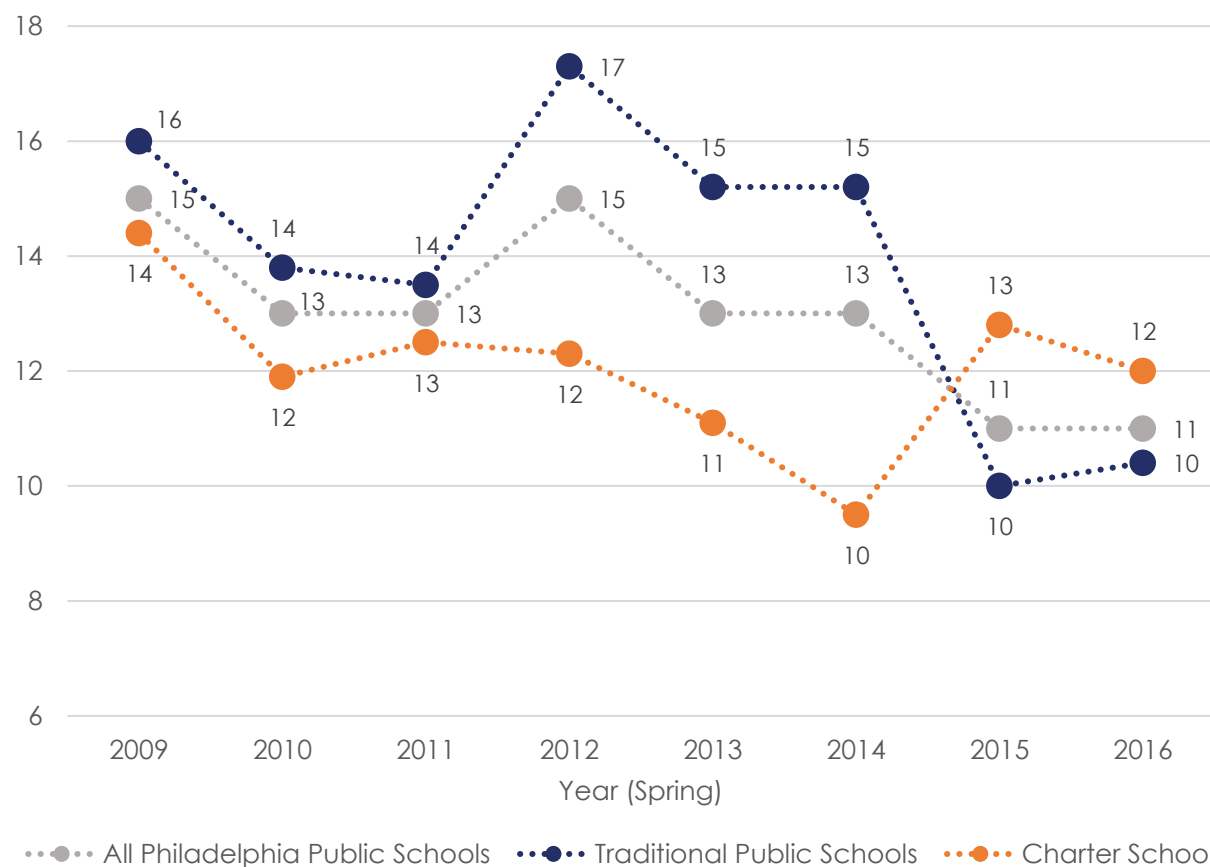
Figure 9. Average Age of Novice Philadelphia Principals, by Sector



Notes: Figure shows the average (mean) age, in years, of novice principals across the 2008-09 through 2015-16 period among traditional public school (TPS) principals, charter school principals, and all Philadelphia public school principals. Novice principals are in their first year as principals in Pennsylvania public schools during or after the 2008-09 school year.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

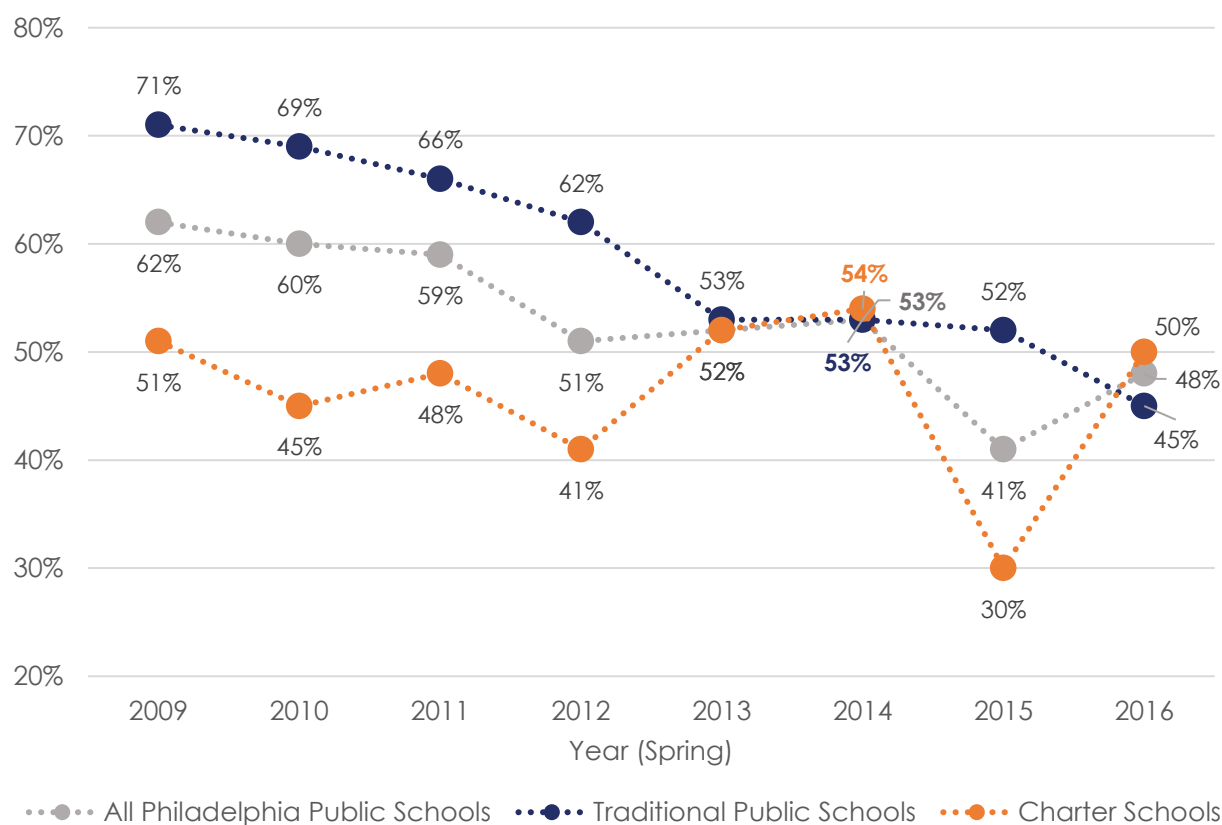
Figure 10. Novice Philadelphia Principals' Years of Experience in Pennsylvania Public Education, by Sector



Note: Figure reports the mean years of experience in Pennsylvania public education across the 2008-09 through 2015-16 period for novice principals in traditional public schools (TPS), charter schools, and all Philadelphia public schools. Novice principals are in their first year as principals in Pennsylvania public schools during or after the 2008-09 school year.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Figure 11. Percentage of Novice Philadelphia Principals Identified as Black or Hispanic, By Sector



Notes: Figure reports the percentage of novice principals identified as Black or Hispanic across the 2008-09 through 2015-16 period for traditional public schools (TPS), charter schools, and all Philadelphia public schools. Novice principals are in their first year as principals in Pennsylvania public schools during or after the 2008-09 school year.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Implications for policy and practice

1. **The disproportionately high rate of principal mobility among Philadelphia schools serving the most economically and academically disadvantaged students is an area for ongoing attention.** Despite principal mobility rates that are similar to statewide averages and to other urban districts in Pennsylvania, our data show that principals at schools with the lowest achieving and most disadvantaged students are more mobile than their peers at schools with higher achieving and more advantaged students. These findings suggest that city and state leaders should identify ways to provide additional supports and resources to principals – particularly novice principals – who are working in schools that serve the most disadvantaged students in Philadelphia.
2. **The higher rates of principal mobility and the concentration of novice principals in Philadelphia’s charter sector should inform policy choices among district and charter school leaders on the identification and retention of school leaders across sectors.** Since principal mobility is related to adverse student outcomes, and principal effectiveness improves with school leadership experience, there are concerns about how these patterns may shape the schooling climate in Philadelphia charter schools. Evidence on the extent of principal mobility and the high rate of novice principals in Philadelphia charter schools should compel school leaders to identify ways to attract and retain principals in charter schools in an effort to improve the schooling outcomes of charter students.
3. **Relatively few principals exited Philadelphia for other public school districts in Pennsylvania—a fact that can inform district and charter school policy choices related to principal recruitment and retention.** For any school district, formulating a strategy to recruit and retain principals requires a clear understanding of the problem and a set of targeted responses. This report shows that principal departure to Pennsylvania public schools outside of Philadelphia was *not* a major part of the challenges that TPS and charter schools face around principal recruitment and retention.

Limitations & Further Research

This study is unable to examine the reasons why principals leave their schools, which would require additional survey or qualitative data. Further, the study cannot determine whether mobile principals were more (or less) effective in improving student achievement, developing and retaining teacher talent, and/or managing the organization and mission of schools than principals who remained in their schools. For these reasons, we cannot assess the extent to which principal mobility was beneficial or harmful to students and schools.

Though beyond the scope of this report, ongoing work by the study authors will use data provided by the Pennsylvania Department of Education – including student achievement data and data on a school’s teachers – to better understand whether principal mobility is related to student achievement and teacher mobility. This ongoing research will supplement findings from this report to continue to provide local and state leaders and policymakers with a detailed assessment of the consequences of principal mobility for students, teachers, and schools in Philadelphia and throughout the state of Pennsylvania.

Appendix A: Additional tables

Table A-1. Percentage of Pennsylvania Principals in Traditional Public Schools Who Were Mobile (Statewide and Urban District Comparison), by Year

	Pennsylvania	Philadelphia	Allentown	Erie	Reading	Pittsburgh
2007-08	21%	25%	5%	28%	25%	17%
2008-09	19	17	14	44	24	31
2009-10	19	27	24	04	16	21
2010-11	19	30	05	04	42	18
2011-12	21	19	43	52	45	35
2012-13	23	41	29	11	22	32
2013-14	19	20	27	30	24	35
2014-15	17	21	9	00	13	11
2015-16	17	14	13	11	25	13
Overall Mobility Rate	19	24	19	22	27	24
Principal*Year Observations	24,515	2,260	194	197	178	532
Number of Principals	5,217	530	50	46	45	122
Number of Schools	3,162	284	24	23	26	73

Notes: Each cell reports the mobility rate of traditional public school (TPS) principals. Mobility is defined as not observing a principal in the same school at time $t+1$ as s/he was a principal at time t .

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Table A-2. Destination for Mobile Philadelphia Principals, by Year

	Switched Sectors	Stayed in Sector	Exited Philadelphia	Exited Principalship	Exited Public Education in PA
2007-08	5%	33%	5%	25%	33%
2008-09	1	26	4	31	38
2009-10	4	31	5	27	33
2010-11	1	37	2	17	43
2011-12	4	26	0	21	50
2012-13	2	27	3	13	55
2013-14	5	20	7	25	43
2014-15	3	21	4	22	48
2015-16	1	16	1	23	58
Percentage of Principals Who Were Mobile	3	27	3	22	45

Notes: Each cell reports the percentage of mobile principals. *Switched Sectors* includes mobile principals who were employed as principals by a school in the other sector (traditional or charter) in Philadelphia in the following year; *Stayed in Sector* includes mobile principals who were employed as principals by a different school in the same sector (traditional or charter) in Philadelphia in the following year; *Exited Philadelphia* includes principals who were employed as principals by a school district located outside the city of Philadelphia in the following year; *Exited Principalship* includes principals who were employed in public education in Pennsylvania in the following year but held a role other than the principalship (e.g., classroom teacher, assistant principal); and *Exited Public Education in PA* includes principals who were no longer in public education in Pennsylvania in the following year. Across the study period, there were 815 principal*year observations that were mobile, which included 633 unique principals across 355 schools.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Table A-3. Philadelphia Principal Characteristics, by Sector and Mobility

	Traditional Public Schools		Charter Schools	
	Mobile principals	Non-mobile principals	Mobile principals	Non-mobile principals
Mean age (standard deviation in parentheses)	49.6 (8.8)	52.1 (9.4)	43.0 (11.4)	43.9 (11.7)
Percent female	69%	64%	59%	61%
Percent White	41%	36%	52%	45%
Percent Black	50%	56%	37%	46%
Percent Hispanic	6%	6%	8%	6%
Percent other race or ethnicity	2%	1%	3%	3%
Mean annual salary in 2016 dollars (standard deviation in parentheses)	\$126,996 (\$15,179)	\$130,013 (\$15,747)	\$109,145 (\$22,118)	\$106,939 (\$29,196)
Years of education experience (PA) (standard deviation in parentheses)	20.2 (9.3)	21.4 (11.0)	15.2 (11.4)	15.3 (10.3)
Principal*Year Observations	1,714	548	492	267
Principals	439	412	190	235
Schools	278	268	87	87

Notes: Table reports mean (standard deviation), except for gender (*Female*) and race/ethnicity, which reports percentages. Mobility is defined as not observing a principal in the same school at time $t+1$ as s/he was a principal at in time t . Years of Experience (PA) is the number of years of educational experience in the state of Pennsylvania. Salary (\$2016) is a principal's annual salary inflation adjusted to September 2016 dollars.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.

Table A-4. Philadelphia Public Schools with Highest Principal Mobility Rates, by Sector

Traditional Public Schools	Frequency of Principal Mobility	Charter Schools	Frequency of Principal Mobility
Laura Carnell School	44%	Discovery Charter School	67%
Cook-Wissahickon School	44	Esperanza Academy Charter School	56
Edison High School	44	First Philadelphia Preparatory Charter School	56
Furness High School	44	Khepera Charter School	56
John B. Kelly School	44	Philadelphia Montessori Charter School	56
George Meade School	44	Young Scholars Charter School	56
Samuel Pennypacker School	44	Alliance for Progress Charter School	44
William Sayre High School	44	Community Academy of Philadelphia Charter School	44
South Philadelphia High School	44	MAST Community Charter School	44
Richard Wright School	44	Mastery Charter School - Thomas Campus	44
		Russell Byers Charter School	44

Notes: *Frequency of Principal Mobility* is calculated as the percentage of school years during the study period (n=9 school years) in which a school experienced a principal mobility event (i.e., the principal exited the school). We report the ten TPS and eleven charter schools for which the frequency of principal mobility was greatest within sector.

Source: Authors' calculations from personnel data provided by the Pennsylvania Department of Education, 2007-08 – 2016-17.