

EdWorkingPaper No. 24-1037

Applying to Lead: A Mixed-Methods Investigation of Prospective Principals' Job Application Strategies in Two Urban Districts

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Research Design and Methods: We employ a convergent mixed-methods design that draws on data from two urban school systems. We pair analysis of interviews of 36 principals who have recently navigated the districts' hiring systems with multiple years of applications and other administrative data provided by the two districts. We explored how patterns and themes that emerged from each data source were confirmed or disconfirmed with the other source.

Findings: Guided by a job-search model, our analysis uncovers three main findings. First, the typical principal applicant conducted a targeted rather than a wide search, reflecting multiple strategies, preferences, and relational factors. Second, elementary educators showed a strong propensity to apply to the same grade level. Third, leaders applied to schools serving larger proportions of historically marginalized students at similar rates as other schools, reflecting their motivations to work with underserved students.

Implications for Research and Practice: Considerations informing prospective principals' job searches are multifaceted. High-needs schools are desirable to many principal candidates. Identifying and strategically recruiting candidates with preferences for working in such schools can be a strategy for districts seeking to overcome challenges in filling principal vacancies.

VERSION: September 2024

Suggested citation: Gordon, Molly, Jason A. Grissom, Ashley Ellison, Mollie Rubin, and Francisco Arturo Santelli. (2024). Applying to Lead: A Mixed-Methods Investigation of Prospective Principals' Job Application Strategies in Two Urban Districts. (EdWorkingPaper: 24-1037). Retrieved from Annenberg Institute at Brown University: https://doi.org/10.26300/2dj6-3v89

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Implications for Research and Practice: Considerations informing prospective principals' job searches are multifaceted. High-needs schools are desirable to many principal candidates. Identifying and strategically recruiting candidates with preferences for working in such schools can be a strategy for districts seeking to overcome challenges in filling principal vacancies.

Principals who lead schools serving higher proportions of historically marginalized students have less robust qualifications and may be less effective, on average, than those who lead other schools (e.g., Clotfelter et al., 2007; Grissom, Blissett, & Mitani, 2018). This pattern is

The authors acknowledge support from the Institute of Education Sciences, U.S. Department of Education, through grant R305A190520 to the National Opinion Research Center. The study would not have been possible if not for the partnership and support of central office staff and principals in Chicago Public Schools and Metropolitan Nashville Public Schools. We are indebted to the staff and principals who so graciously gave of their time and shared their experiences. We would also like to acknowledge John Q. Easton for his contributions to the study. Lastly, the authors would like to thank Chen Ah, Elaine Allensworth, and David Stevens at the UChicago Consortium on School Research for their partnership and analytic support.

driven, in part, by a tendency for principal candidates with lower qualifications to fill vacancies in schools serving low-income or low-achieving students (Grissom, Bartanen, & Mitani, 2019). We have little sense, however, of the labor market dynamics that drive this pattern. One possibility is that inequitable hiring results from "demand side" considerations in the labor market—that is, choices made by hiring decision-makers. For example, district leaders may not prioritize recruiting the most qualified candidates for vacancies in schools with greater needs, or they may not implement hiring processes suited to identifying the best candidates to match to those positions.

Yet even if hiring decision-makers prioritize and have processes in place to hire effective principals for high-needs schools, the application behaviors of candidates may leave them without robust hiring pools from which to draw. If principal candidates systematically seek employment in more advantaged schools, for example—a pattern observed in studies of candidates for teaching positions (e.g., Engel, Jacob, & Curran, 2014)—schools that need high-quality principals most may often be left with smaller applicant pools containing few well-qualified potential leaders (Stark-Price et al., 2007; Winter & Morgenthal, 2002). Importantly, candidates may tend to seek employment in advantaged schools even if they do not have preferences for working with the student populations that often attend those schools, per se. A complex array of factors predicts how job candidates approach the question of where to seek employment (DeAngelis & O'Connor, 2012; Manroop & Richardson, 2016). Understanding application behavior likely requires understanding not just preferences for student populations or other school characteristics but other considerations, such as commuting distances to potential

schools or candidates' engagement with their professional networks, that might inform how candidates think about different leadership positions and their prospects for obtaining them.

Unfortunately, the research base on prospective principals' job search and application behavior is small. Most studies of leaders' applications focus on decisions about whether or not to apply at all, not on how leaders approach the application process after that decision is made (see DeAngelis & O'Connor, 2012; Farley-Ripple, Raffel, & Welch, 2012). In other words, existing work provides insight into who is in the general principal labor pool and why, but our understanding of how principals engage with the hiring process once they are in the pool is limited. Research has not delved sufficiently into principal candidates' preferences over jobs across schools and their associated application strategies, nor considered how those preferences and strategies might affect hiring pools across schools with different characteristics.

Documenting the determinants of school-specific labor pools is important for scholars of principal labor markets and to policymakers and district leaders seeking to advance equity in the distribution of effective leaders across schools.

This exploratory study contributes to our understanding of these determinants, focusing on the "labor supply" side of the principal labor market in two urban school districts. We investigate how principals engaged in the application process in the two districts, using two data sources to understand this engagement more fully. First, we analyze data from interviews we conducted with 36 principals who have recently navigated one of the two districts' hiring processes. Second, we pair the interview data with quantitative data on applications from nearly all candidates seeking principal positions over multiple hiring cycles in the two districts.

Employing a mixed-methods convergent design, we delve into the job-seeking strategies and behaviors of principal candidates as reported by the recent candidates themselves and as reflected in the applications they submitted. Specifically, we answer two research questions. First, how do principals approach their job search? For example, to how many schools do they apply? To what kinds of schools? Second, what preferences and other influences (e.g., advice of other district personnel) drive principals' job application behaviors?

We ground our study in a multidisciplinary framework that recognizes job searches as having individual, relational, and broader labor market context components. The next section describes this framework as applied to school principals. We then describe our data and methods before reporting our results. The final section concludes with a discussion of implications of the study for district policies and practices, study limitations, and ideas for future research.

A Framework for Understanding Principal Candidates' Job Search Behaviors

Existing research on prospective principals' job search focuses primarily on the decision to seek a principal role. These studies emphasize the importance of personal factors and relationships. A study based on a survey of educators who earned administrative certification in Illinois found that men and educators of color were more likely to submit applications for principal roles (DeAngelis & O'Connor, 2012), although other studies have found that women with licenses are more likely to pursue administration (Whitaker & Vogel, 2006). In interviews with leaders in Delaware, factors such as motivations to effect change emerged as important to the leadership entry decision (Farley-Ripple et al., 2012). Other work highlights the significance of family considerations, especially for women (Riehl & Byrd, 1997). With regard to relationships, research emphasizes not only the importance of having positive relations with

others in the system as key to pursuing principal roles (Farley-Ripple et al., 2012) but specifically the role of encouragement from others (or "tapping") as a driver (e.g., DeAngelis & O'Connor, 2012; Farley-Ripple et al., 2012; Myung, Loeb, & Horng, 2011).

Little research, however, has explored the drivers of job search behavior once a prospective principal has made the decision to enter the labor pool. To ground this exploration, we adapt a framework from Manroop and Richardson (2016), who synthesize research on job-seeking from labor economics, sociology, and industrial-organizational psychology to propose a job search model that integrates these different perspectives. The Manroop and Richardson (2016) framework is general; that is, their goal is to describe job search processes irrespective of the kinds of potential employment a worker may seek. In the specific context of a *school leader* job search, not all aspects of their framework apply. Thus, in our adaptation we streamline and reorganize the framework to better represent the case of educators seeking school principal positions.

Our adapted framework appears in Figure 1. Similar to Manroop and Richardson (2016), at the center of our framework are (a) job search preferences, strategic considerations, and goals and (b) job search behaviors. *Job search preferences, strategic considerations, and goals* inform how a job-seeker approaches the job search process. *Job search behaviors* are the formal and informal steps a job-seeker (i.e., a prospective principal) takes to secure a job. Formal steps include searching for openings and completing the different stages of an application process, while informal steps might include advice-seeking from knowledgeable peers or self-advocacy with organizational leaders involved in hiring decisions. The solid black line from preferences/goals to behaviors reflects the assumption that the job-seeker's goals drive how they

behave, with behaviors reflecting their understanding of the search strategies that will best help them realize their goals. The dotted line in the other direction represents the idea from the job search literature that job-seekers may adjust their preferences and goals based on what they learn as they engage with the search process, especially if the search goes on for some time. Job search behaviors determine *employment outcomes*, the rightmost box in the figure.

A main insight in Manroop and Richardson's (2016) model is that numerous factors drive job search preferences, goals, and behaviors. We adopt this insight. However, our review of existing studies of principal job aspirations and hiring (e.g., DeAngelis & O'Connor, 2012; Farley-Ripple et al., 2012; Riehl & Byrd, 1997) lead us to a different categorization of these antecedents than in Manroop and Richardson (2016). We label these antecedents *individual*, *relational*, and *labor market factors*.

Individual factors are factors specific to the job-seeker that inform what they hope to achieve in a job search process and how they engage in it. Existing research suggests at least four different kinds of individual factors that affect job searches. The first is personal characteristics, which include demographic characteristics such as gender, race/ethnicity, and age (Farley-Ripple et al., 2012; Riehl & Byrd, 1997; Whitaker & Vogel, 2005). For example, Riehl and Byrd (1997) offer a detailed analysis of the ways in which women and men think about and engage differently with the process of preparing for, seeking, and securing a principal role. The second is prior work experiences, which may shape future job preferences. For example, an aspiring leader whose teaching career has been spent entirely in elementary schools may be unlikely to see themselves as a prospective leader of a middle or high school. Third are values, commitments, and motivations. Educators may be attracted to the principalship due to their goals and

aspirations to achieve and influence or improve education (Pounder & Merrill, 2001). Educators also differ in the values they place on specific aspects of the job, such as opportunities to work with certain student populations, which can affect their job preferences (Loeb, Kalogrides, & Horng, 2010). Fourth are perceptions, including prospective principals' perceptions of their own skills and of the hiring processes (van Hooft et al., 2021). How applicants understand their capabilities, for example, likely informs which schools they see as a "fit," and their understanding of their likelihood of being chosen to lead different schools may inform their application set.

Relational factors are those that pertain to job-seekers' interpersonal relationships that are relevant to the job search. These influences may include social support from family or peers that provides advice, help, or encouragement during the job search process, as well as assistance from peers or other networks (van Hooft et al., 2021). Research on job-seeking among teachers shows that teachers often rely heavily upon their social networks when searching for and applying to jobs (Jabbar et al., 2020). Other studies have explored "tapping"—that is, when teachers are encouraged to pursue school leadership by their school leaders—and found it is related to teacher motivations to pursue the principalship (Farley-Ripple et al., 2012; Myung et al., 2011). Overall the role of relational networks in principal job searches remains underexplored.

Labor market factors are market-related structures and forces that set the stage for the job search. For example, the number of principal vacancies in a local labor market during a hiring period and the size of the pool of prospective principals help determine how competitive hiring processes are, which may affect applicants' approaches to job-seeking. Other factors, such as the

characteristics of schools with vacancies (Loeb, Kalogrides, & Horng, 2010) and the mix of salaries and benefits schools or districts make available for different jobs (Lankford et al., 2002; Pounder & Merrill, 2001) may also influence how prospective leaders think about and engage with the search process. The geographic location of schools with vacancies and prospective leader's commuting preferences may influence where they choose to apply. In addition, school districts may adopt internal policies and practices within the hiring process that affect how prospective leaders engage in their job search.

Antecedent factors inform prospective leaders' job preferences and goals for their job search and influence the strategies principal candidates employ in pursuing a principal position. Although past studies offer evidence on these points (e.g., DeAngelis & O'Connor, 2012), a more complete investigation of principals' job search has been limited by data availability. This study aims to illustrate prospective principals' navigation of the job search process more fully by pairing qualitative interview data from early-career principals with district-wide application data for both successful and unsuccessful candidates. Principals' reflections on their own search approaches alongside evidence on principal candidates' applications can provide new, more nuanced insights into how potential school leaders engage in the job search process.

Data

We make use of data from two urban school districts: Chicago Public Schools (CPS) and Metro Nashville Public Schools (MNPS). The two districts were recruited to participate based on prior research relationships between the districts and the first two authors. The two districts offer helpful comparisons because, although both are large urban districts, they vary substantially in enrollment size, demographics, and structure—factors that may shape principal job searches. In

the 2019–20 school year, CPS served approximately 300,000 students in just over 550 non-charter, non-alternative public schools. About 74% of students qualified for free or reduced-price lunch (FRPL), and 47% of students identified as Hispanic/Latinx, 34% as Black and 13% as white. The principal turnover rate, or the proportion of principals who did not return to the same principal position in the following academic year, was 10% in 2019-20. Schools in CPS are primarily structured to serve grades K–8 (referred to as elementary schools) and high schools serving grades 9–12. MNPS serves approximately 80,000 students in over 150 schools. About 35% of students were classified by the state as economically disadvantaged (ED). Approximately 40% of students were identified as Black, 30% as Hispanic/Latinx, and 25% as white. The principal turnover rate in the 2019–20 school year was 17%. The district is structured into elementary (grades K–4), middle (grades 5–8), and high (grades 9–12) schools.

The two districts have similar hiring processes. In both, vacancies are posted for specific schools, and candidates apply to a given vacancy (as opposed to applying centrally to be a principal and then being placed on selection, as in some districts). They are then screened and proceed through interview and evaluation processes that include a school site panel. In CPS, candidates must first go through an eligibility process that requires evidence of leadership experience and competencies before being placed into the official principal candidate pool. They can then apply to any job openings. In MNPS, all individuals with leadership licenses are considered eligible to apply. In both districts, the timing of postings is staggered over the hiring season, which generally spans February to the summer. Both districts hire primarily from an internal candidate pool, although hiring decision-makers may consider and sometimes hire candidates from outside the district.

We captured two types of data in both districts. First, during the 2020–21 school year, we conducted semi-structured interviews with early-career principals, defined as principals having fewer than five years in the role. We focused on early-career principals because they had most recently navigated their district's application and hiring process. We purposely recruited principals from different grade levels and areas of each city. Because we were especially interested in the experiences of principals working in schools often categorized as high-need, we oversampled schools serving high proportions of low-income and low-achieving students. Appendix Table 1 shows the characteristics of the interview sample. Interviews were conducted via Zoom due to COVID-19 pandemic restrictions and lasted approximately one hour. In these interviews, we asked participants about their job histories, their motivations for pursuing the principalship, the recruitment processes they experienced, and their job application and selection experiences, including job preferences, and other factors that shaped their job search and selection (See Appendix Table 2). We conducted 20 interviews in CPS and 16 in MNPS.

Second, we received deidentified principal application and other administrative data from each district. CPS provided applications data spanning the 2017 to 2020 hiring cycles; MNPS provided data spanning 2019 to 2022. iii In both districts, application data included to which schools each candidate applied each year, producing candidate-by-application-level data. These data are described in Table 1. In CPS, there were 197 vacancies, 1,937 applications, 597 applicant-by-year observations, and 408 unique applicants. In MNPS, there were 48 principal vacancies, 1,232 applications, 389 applicant-by-year observations, and 289 unique applicants represented in our data. iv

Administrative data included background information on each candidate (e.g., gender, race/ethnicity, years of experience, education level, current job role) and information on schools in each system, such as location, enrollment size, tier, and demographic composition. These data show all non-charter principal vacancies in each district by school with identifiers for applicants. We matched schools and applicant identifiers to district administrative data to glean basic information about applicants (e.g., years of experience) and current school context (e.g., proportion of students eligible for subsided lunches/ED).

Appendix Table 3 compares all schools in each district to schools that had principal vacancies over the time periods reflected in our data. In MNPS, the schools with vacancies had different observed characteristics than all schools in the district. As compared to all schools in the district, schools with vacancies were more likely to be elementary schools (by 9 percentage points) and less likely to be middle and high schools (by 4–6 percentage points). They also served a higher share of Black students (by 9 percentage points) and a lower share of Hispanic/Latino students (by 7 percentage points) and had smaller school enrollments (~90 students). Schools with vacancies were more like the typical school in CPS, though elementary schools were slightly overrepresented (by 6 percentage points).

Methods

We employed a mixed-methods convergent design in which quantitative and qualitative analyses are executed in parallel and patterns in one data source iteratively informed the analysis and interpretation of the other data source (Creswell & Clark, 2017). As we began identifying themes and patterns in the qualitative data, we turned to examining the quantitative data to see if the patterns were similar or different. We did this through multiple iterations and cycles of

pattern identification in our qualitative sample and pattern confirming or disconfirming in our quantitative sample. Using the two data sources in tandem helped to address limitations of each. For example, our qualitative data provided depth but drew only from the experiences of successful candidates; the applications data covered all vacancies for both job-seekers who were placed as principals and those who were not.

Principal interviews were transcribed and thematically coded using qualitative analysis software. We followed Miles and Huberman's (1994) approach for data reduction, using both deductive and inductive coding techniques. Researchers working in tandem on data collected from the two districts began by identifying a list of high-level a priori codes based on interview constructs grounded in prior literature as organized by the study's conceptual framework. These codes identified text related to leadership motivations and aspirations, for example; other codes referenced such constructs as job preferences, recruitment, and application patterns. Our team coded a small number of interviews from both districts first to ensure that the initial descriptive coding framework fit both locales, and later to develop interrater reliability. After the first round of coding, we conducted a second round of inductive coding, adding in child codes that emerged from the data (e.g., factors associated with job preferences such as social/relational factors like peer groups, individual factors like family considerations, and school and student demographics like size and race/ethnicity of study body). We then analyzed the emergent patterns and relationships between principals' stated job preferences and their application patterns, including the types of schools they applied to and where they accepted positions and why. Throughout the analysis process we looked for congruence or incongruence between the two. Reading within codes by district, we recorded findings in structured memos, and then identified common themes and patterns across participants both within and across districts. We also identified which themes and patterns we could explore in the larger administrative dataset in both districts and compared qualitative and quantitative findings. Throughout the analysis process we examined how the larger themes and relationships found in our data were related to or aligned with previous literature and our conceptual framework.

We descriptively analyzed applications data, summarizing how many schools each applicant sent applications to and the characteristics of those schools, as well as how those characteristics varied with applicant characteristics. Patterns in these data at times led to reexamination of the interview data, until final themes and conclusions were identified.

Results

Our job search framework predicts that employment outcomes result from job search behaviors, which are driven by job search preferences and search goals. Individual, relational, and labor market factors inform these behaviors, preferences, and goals. Guided by this framework, our iterative mixed-methods analysis resulted in numerous conclusions about principals' job search processes in the two districts we studied. For purposes of exposition, we organize these findings around three top-line conclusions about job search behaviors: (1) that the typical principal applicant conducted a targeted rather than a wide search, signifying preferential, strategic, and relational factors at play; (2) that the grade level in which a candidate works was associated with the grade level of the schools to which they applied, particularly among elementary educators, indicating the importance of prior work experiences; and (3) that applicants applied to schools serving larger proportions of historically marginalized students at similar rates as other schools, reflecting their motivations to promote equity and work with

underserved students. Within each section, we discuss applicant preferences and goals and the antecedent factors that influence the behaviors.

Applicants Typically Applied to Few Principal Positions

If candidates are trying to maximize their probability of being hired as a principal, we might expect that principal candidates apply to many vacancies each year. However, although some applicants applied widely, we found that more targeted application strategies were much more typical.

We used the applications data from each district to calculate the number of schools to which each candidate applied per hiring cycle. Histograms in Figure 2 show the distribution of this number of applications by district. In both districts, the median is 2, and the mode is 1. In other words, most applicants are applying to just one or two jobs.

Applicants' decisions to conduct very targeted searches reflected their preferences, a strategic stance given their perceptions of the hiring process and likely outcomes in the district, or both. Their decisions also sometimes flowed from their interactions with others in the district.

As an illustration, consider narrow searchers who applied only to their current school. As shown in Table 3, Panel A, 37% of applicants applying to only one school in CPS sent that application to their current school; a smaller proportion, 11%, fell into this category in MNPS. In interviews, these narrow searchers explained that they only really wanted to be the principal in their current school because they knew the school and it "felt like home" or because they perceived their chances of getting the position as strong. As one MNPS principal who had served in the principal role in a school on an interim basis noted:

At the end, you know, the teachers and I thought it's like, well, I'm a shoo-in, I've been here already four years, this interim year, that's five years. Surely, everybody knows that I know how to run this place and do what I need to do.

Narrow searchers applying to schools other than their current one also referenced their preferences, strategic considerations, and relational factors. In many cases, candidates had strong preferences for working in schools with very specific characteristics, but there were only a few vacancies meeting those criteria. We explore preferences for these characteristics below. Others targeted their searches because they felt that filling out many applications was a waste of time. For example, one principal in MNPS said that there was little use in filling out a lot of applications because there often are already frontrunners for jobs. Similarly in CPS, some principals expressed a reluctance to apply to certain job openings or postings which they perceived were not "authentic" openings without a preferred candidate. As a CPS principal explained:

You don't really know whether the openings that are posted are really true openings because you have the legality of even though your principal is going through a renewal or whatever, you have to post it regardless of whether the school has intentions on keeping the principal, or not. That's what made it difficult is trying to ascertain whether ... [the opening] is just a formality.

Interviewees discussed the benefits of relationships and social networks to guide their job search process. For example, many interviewees noted that their application process involved discussions with other school and district leaders, such as their current principals or area superintendents. These discussions helped candidates apply to specific schools that were likely to be a good a fit based on factors such as goals, leadership style, and past experiences and expertise. For instance, a principal in MNPS described their experience this way:

I would look at the vacancies. And I would sit down with my [Area Superintendent] and discuss those schools, and discuss who I was as a leader, what I was looking to do. And I ended up applying to two schools.

This principal relied on their superiors to help guide where they should apply, ultimately leading them to have very targeted applications.

While some interviewees noted that they received broad encouragement to pursue leadership positions, numerous principals in both districts indicated that they had been recruited or tapped for specific principal positions. Principal candidates who experienced tapping were often told exactly where they should apply, and as a result had more targeted searches. Discussions with peers and superiors also steered some candidates to apply to positions they normally would not have considered applying to or were not actively seeking. For example, a principal in CPS related:

The chief of schools reached out to me and said, "Hey, I think you'd be great to lead this work. Are you interested in applying for this job?" I said, "Yeah. What do I have to lose?" I applied for that, and then that's how I became a principal.

This principal explained that they never actively pursued a principal position or considered themselves as being actively on the market. Instead, their application behavior—applying to one position—was the result of being offered an opportunity. The first job I applied for is the job I got... somebody [from the district] reached out to me for me to go and get the position." They went on to explain: "At that point I was so like fresh and new. I'm like, 'Oh, you want me to go there? Okay, great!' I didn't ask a lot of questions like I should have." While other principals who were recruited or encouraged into specific positions still applied for one or two other openings "to be safe," they did not engage in the broader search as they might have without prior tapping or encouragement.

Candidates—Especially Elementary Candidates—Targeted Applications to Schools at the Grade Level Matching Their Experience

Regardless of whether candidates conducted a targeted or wide search, their applications reflected sorting by grade level. Elementary educators displayed a strong tendency to apply to principal jobs in elementary schools. As shown in Table 2, Panel A, 85% of applications from candidates who worked in elementary schools in MNPS, and 93% of these applications in CPS were for positions in elementary schools. Elementary educators seldom applied for positions in upper grade levels.

Evidence of sorting for middle school educators (in MNPS) and high school educators (in both districts) was less pronounced. In both districts, these applicants were at least as likely to apply to elementary schools as to their current grade level, perhaps reflecting the much higher frequency of elementary vacancies (given the larger number of elementary schools). In MNPS, just 22% of applications from middle grades educators went to middle schools, compared to 67% to elementary schools and 7% to high schools. High school educators applied to both elementary schools (44%) and middle schools (36%) more often than to high schools, though notably, high school educators were much more likely to apply to high school principal vacancies than were educators in lower grades. In CPS, applications were split evenly between elementary and high schools for applicants from high schools.

In Table 2, Panel B, we find that MNPS and CPS candidates who engaged in more targeted searches (between 2 and 3 applications) were more likely to apply to one school tier than those who engaged in wider searches (4+ applications). Only 14% of MNPS candidates and

61% of CPS candidates who applied for 4 or more positions applied only to one school tier, compared to 45% of MNPS and 81% of CPS candidates who applied to 2–3 schools.

Interviews uncovered multiple reasons for these patterns. In some cases, pursuit of "same grade-level" roles resulted from relationships; because networks of schools in the two districts were organized primarily by grade level, encouragement to apply to specific openings from one's current principal or network leader was more likely to emphasize openings at the same level. More commonly, principals in both districts expressed strong desires to work in schools with a grade level configuration where they had substantial experience serving in as a teacher or assistant principal, which was often, but not always, the grade level at which they were working at the time they applied. In some cases, experience at multiple levels informed how principals conducted their search. One MNPS principal noted that all their applications "were geared around either elementary or middle schools" because that is where they had experience; they did not "know anything about high school." Another principal in MNPS who had taught in both elementary and high school settings specifically sought out elementary school positions because they felt the added organizational complexity of high schools was too difficult for a novice principal. Another was encouraged to pursue a middle school principal role but did not because they had not taught middle school and thus did not think middle school teachers would respect them.

Having grade level preferences, however, did not always result in candidates applying to or getting positions in these preferred schools. For example, a female principal in CPS ended up at the helm of a high school even while having strong preferences to work in elementary schools. She noted:

I always thought, to be honest, I didn't want to do high school because they are just as tall as I am. And I think that when you are just as tall, you think that they're grown, and I don't really deal with grown children, to be honest...I just said, "I will never do high school. I'll never do high school." And I guess God said, "I have a sense of humor, so you're going to definitely do high school. That's where you're going to be." And it's worked out well, actually.

The principal explained that, after always teaching or holding teacher-leadership roles in elementary schools, she had been offered an AP role in a high school, which she had taken because it was the only one she was offered in her part of the city. She had intended to return to the elementary level when she applied to principal roles until the vacancy opened at the high school in which she was an AP, to which she was encouraged to apply. This example illustrates that job preferences do not necessarily equate with actual candidate application behaviors.

Candidates may have strong preferences, but other factors can override applicant behavior.

Applicants Applied to "Hard-to-Staff" Schools at Roughly Similar Rates as Other Schools

Evidence suggests that teachers apply much less often to schools serving higher proportions of historically marginalized students, on average (e.g., Engel, Jacob, & Curran, 2014), a key reason for staffing challenges in those schools. Surprisingly, then, our analysis of the principal applications data found that candidates in these two districts were not necessarily less likely to apply to schools typically labeled "hard-to-staff."

As an illustration, Figure 3 compares the characteristics of the schools to which applications were submitted to characteristics of the schools in which there were vacancies that year. Panel A shows proportion of English learners (ELs), and panel B shows the proportion of Black students. The bold line represents the distribution of the respective characteristic for each application that was submitted (so applicants and schools are represented multiple times), while the dotted line represents the distribution of the characteristic in the schools with vacancies. If

applications were distributed evenly among vacancies, the two lines would perfectly overlap. Where the bold line is above the dotted line, schools at that level of the given characteristic are receiving a higher proportion of applications for principal positions. The vertical lines represent the means of each of those distributions. vi

Panel A shows that, for both districts, the mean proportion of ELs for the applications and vacancies distributions are very similar. There is some evidence that schools with very few ELs received greater shares of applications but primarily at the expense of schools having slightly higher—not much higher—proportions of ELs.

Panel B generally shows another correspondence in applications and vacancies for the proportion of Black students in a school, where again the means for applications and vacancies are similar. The distributional patterns are a little different in the two districts. In CPS, the two peaks in the dotted line reflect the racial segregation in the schools with vacancies—there are large numbers of schools with a high proportion of Black students and with a low proportion of Black students, and fewer schools with vacancies in the middle of the distribution. Schools at both ends of the distribution receive a disproportionately high number of applications. In MNPS, a relatively pronounced peak exists in the applications distribution around 0.4 (which is below the vacancy mean) and a smaller one around 0.9 (well above the vacancy mean), suggesting that schools with vacancies in which Black students constitute about 40% or 90% of the student population received a disproportionate share of applications.

Leaders' Preferences for Working in Schools Serving Marginalized Students. Why were schools serving higher proportions of often-marginalized students not disadvantaged in the numbers of applications they received? Evidence from interviews suggested that the answer is

that educators often preferred working in such schools. Principals expressed strong preferences for working with specific student populations, including students of color and ELs, with a desire to promote equity mentioned frequently as a motivator.

In CPS, six principals expressed strong racial/ethnic preferences, saying they wanted to work with either majority-Hispanic populations or majority-Black populations, or simply stating that they wanted to work with students of color. Other principals indicated preferences for leading schools with large population of English learners and students living in lower-income communities. For instance, one Latino principal said, "I was specifically looking for a school where I felt that there would be an opportunity to lead equity work. So, for example, I've always been really passionate about supporting English learners." Another Latino principal in CPS explained, "What I wanted to accomplish was to be the voice of those that have been marginalized for many years and continue to be marginalized, and to ensure that they had an advocate at the highest level."

Similarly in MNPS, many of the principals said they wanted to work in schools serving specific minoritized racial/ethnic groups, those with high immigrant populations serving large numbers of English learners, or in schools serving students living in poverty. Others said they preferred to work more generally with students of color and/or students from economically disadvantaged backgrounds. For example, one Black principal in MNPS, the mother of two boys, shared she had a passion for "how boys learn, and how best to educate boys, particularly minorities." vii

Oftentimes, principals' preferences for working with specific populations of students were linked to their own racial and ethnic identities. As one MNPS principal noted, "I think it

starts with my own personal background...it's also about being an advocate for people who don't have a voice or don't know that they have a voice..." Other principals spoke of having a "gift" for working with certain populations or as it being their "calling." Many principals across the two districts also tied their desire for working with marginalized populations with their value of promoting equity and a desire to help improve schools. As one principal in MNPS said they applied to one school because:

It fit my vision perfectly. It is a, you know, 50% economically disadvantaged school. I felt like when I looked in the different data and things like that, it kind of aligned with the things that I'd seen that I wanted to improve in a school.

Our descriptive analysis provides additional evidence that Black and Hispanic/Latino candidates tended to apply to schools with student populations matching their racial or ethnic identities. Table 4 shows the characteristics of schools where candidates applied, disaggregated by race and ethnicity. Observations are on the applicant-by-year level, meaning we are observing the characteristics of the average applicant's application set, not the average application.

In MNPS, Black, Hispanic/Latino, and white candidates applied to schools with higher-than-average shares of similarly identified students. Hispanic/Latino applicants applied to schools with the highest share of white students and the lowest share of Black students among all groups—perhaps reflecting that in schools with vacancies, Hispanic/Latino students were more likely to attend schools with white students than Black students.

Patterns were similar among Black and Hispanic/Latino candidates in CPS. Black candidates applied to schools with 28 percentage points more Black students than the average candidate, and Hispanic/Latino candidates applied to schools with 36 percentage points more Hispanic/Latino students. White candidates in CPS applied to schools with 9 percentage points

more Hispanic/Latino candidates than the average applicant and 12 percentage points more white students.

Other Preferences. Besides grade level configuration and working with particular student populations, principals in CPS also talked about wanting to work in certain types of schools. Several CPS principals, for example, said they only wanted to work in traditional neighborhood schools, as opposed to charter schools or selective enrollment schools. School size was another factor that many CPS principals considered, with a stronger preference for smaller schools. As one Black female principal in CPS explained, "I was really selective in what I applied for. I really wanted to stay under 600 students because I really wanted to be able to build my own capacity and not take on an 800-student school." Unlike in CPS, principals in MNPS rarely articulated preferences for neighborhood versus magnet schools, thematic schools, or enrollment size.

Geography also regularly played into principals' reported preferences. For example, several interviewees said that they strongly preferred working in a school that was close to home. Many spoke about distance in practical terms. For example, principals sought to minimize their commutes, given the hefty time commitment that came along with being a principal. One CPS principal put it this way: "I'm a workaholic to begin with. So why not be right by work?" Another MNPS principal simply did not want to drive far, saying that, in sending applications, "I'm not going past *this street* because I'm not driving any further to work than this."

Other principals talked about geographic preferences in the context of relational factors. For example, one MNPS principal wanted to be close to home for family reasons: "I wanted to see my kids in the morning before they left for school..." Beyond commute-related

considerations, geographic preferences were often related to themes of past experiences, sometimes tied to locations or sides of the city. Other principals spoke of targeting specific regions of the district because of a combination of personal connections and familiarity with the schools and the populations they served. For example, a Latino principal in CPS said, "I mean, I was pretty open, but I think I definitely wanted to stay near the south and west sides of the city. I think maybe partially because that's where sort of I grew up, I went to school, and I had built relationships in communities that I lived in." In addition, a principal in CPS described wanting to stay with the same network of schools, all located in the same region of the district. This principal specifically valued familiarity with systems, instructors, and operations, as well as with people they've worked with in the past, saying:

I was trying to find something familiar within the unfamiliar and uncomfortable situation of the job that you're putting yourself into. And so I knew that I wanted to either, you know, work in a community that I'm familiar with working with or go back to where I was teaching.

Both districts are organized by networks or clusters of schools with principal supervisors overseeing the units. This organization is stronger in CPS, with networks run almost like "minidistricts." Principals in our sample, especially in CPS, talked about wanting to stay within network or cluster because of the social connections they made and familiarity with the rules and processes within these networks/clusters. Many spoke about only applying to school openings within these networks/clusters.

Discussion and Conclusions

Our mixed-methods exploration of principal applications in two urban school districts uncovered three main findings that emerged in both sites despite differences in district context. First, most principals engaged in targeted job searches, applying to a small number of openings

because of strategic or relational considerations. Second, applications reflected a strong tendency for leaders, especially at the elementary level, to focus on the grade level in which they currently worked or had the most experience with. Third, principals typically were not disinclined to send applications to schools serving large numbers of historically marginalized students, with many principals specifically noting motivations to work with such students. This latter finding suggests a need for the field to rethink what makes schools desirable workplaces for leadership candidates who often feel committed to schools serving students who may face more educational challenges and to work towards equity for such students.

Results aligned with our conceptual framework, showing that individual, relational, and labor market forces intersected in ways that shaped principal application patterns. Individual factors, including such things as principals' own identities and past experiences shaped their motivations to become principals and their perceptions of which types of schools would be a good fit. Relational and labor market factors, on the other hand, including being tapped and drawing upon social networks and relationships with superiors, and the characteristics of schools that had openings, played a large role in principals applying to and landing positions. Relational and labor market factors could even outweigh individual considerations. For example, some principals, ended up working in schools that did not match their individual preferences because they were steered into other types of positions that became open.

Our findings suggest several implications for policy and practice. First, there may be opportunities for urban districts to exercise influence over candidates' job searches that address inequities. Applicants are responsive to tapping and discussions with supervisors, suggesting that district leaders can affect who applies to which schools via informal recruiting. When vacancies

in high-need schools arise, targeting these recruitment efforts towards effective leaders can help build a more robust hiring pool. These efforts may be especially fruitful when candidates already have commitments to working with historically marginalized students, suggesting the importance of districts developing deep knowledge of their prospective leaders and creating pre-service training and preparation opportunities for leaders already committed to leadership in environments facing the greatest challenges. Evidence suggests that formal pipeline programs are promising approaches for districts to build leadership capacities for prospective leaders and to identify fit between leaders and schools (Gates et al., 2019).

Second, and related, in a decentralized principal hiring system in which prospective leaders choose the pool of schools to which they apply, the district's opportunities to make optimal matches between leader and school may be constrained, especially given how targeted principals searches may be. An ideal leader for school A may be available and even applying to leadership jobs in the district, but the district will not be able to hire them for school A if school A is not in their application set. This match problem is less likely in a more centralized system in which candidates apply to the district and then district leaders take a more active role in evaluating and matching them to schools. Centralized systems may be more appealing in contexts where information silos or strong geographic preferences cause applicants to place limits on themselves that are inconsistent with the district's equity goals.

Finally, the study suggests the potential need for refocusing what "hard-to-staff" means in the context of leadership in schools serving marginalized students. At least in these two districts, such schools do not appear to face challenges attracting principal applicants that are any different than other schools. Instead, it may be that the leadership staffing challenges other

studies have highlighted as an obstacle to equity derive primarily from high rates of principal turnover rather than difficulties in recruiting replacements when a principal leaves (Grissom, Bartanen, & Mitani, 2019). Focusing urban districts' efforts on reducing high rates of principal turnover rather than drastically changing selection practices may have a higher payoff in ensuring high-quality leadership across schools.

Our study has several limitations that suggest directions for future research. First, we do not know the degree to which our results generalize beyond these two urban contexts. These two districts both have structured, multistage hiring processes that interviewees suggested are followed with good fidelity. Systems with different hiring processes—or with different cultures or labor markets—may lead prospective principals to engage differently. Investigation of principal hiring processes in other urban contexts is necessary to evaluate the robustness of our results. Second, the interview data we use in the study come only from principals who successfully navigated the hiring process. Interviews with unsuccessful applicants likely would offer different perspectives on leaders' approaches to and experiences with the recruitment and application process. Factors identified as important for principals who secured roles, such as advice from superiors or commitments to working with diverse student populations, may or may not emerge as important factors for others. Contrasting the search experiences of successful and unsuccessful candidates may generate new insights. Third, data limitations mean that our analysis of applications data focused only on internal candidates. External candidates, who may have less dense networks in the district, less knowledge about its schools, and different motivations may well behave differently in the applications process than their internal counterparts. We encourage future research to compare and contrast the preferences, goals, and

behaviors of candidates applying from inside and outside the school district. Fourth, we point out that our study focuses on only one avenue whereby principals can be placed into the role. As Farley-Ripple et al. (2012) demonstrate, principals are also "hired" by requests from or reassignments initiated by the superintendent, suggesting that not all hiring starts from candidate choice. Investigation of those processes would provide a fuller understanding of how principal vacancies are filled.

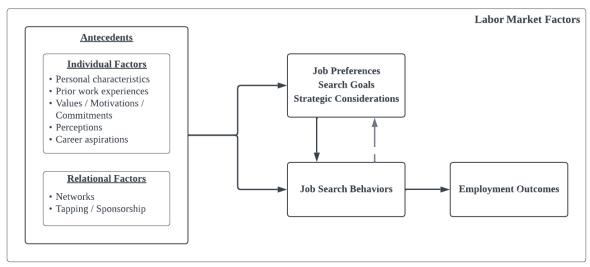
Our study suggests several other worthwhile avenues for research on principal recruitment and hiring processes. We suggest extending the kind of analysis we have conducted to suburban and rural areas, where the processes of identifying and choosing principals may look quite different. Future analyses could also explore how principals simultaneously pursue positions in multiple districts—potentially across districts of different types and contexts (e.g., urban and nearby suburban districts)—which we do not observe in this study. In addition, studies that investigate recruitment and hiring from the perspective of the *other* side of the labor market—meaning, how districts approach pool-building and selection—would make important contributions. Lastly, we suggest the need to continue to study principal recruitment and hiring post-COVID. The pandemic has affected educator burnout and turnover while also causing broader shifts in population mobility (i.e., people moving away from many urban centers), meaning there may have been impacts on job vacancies and challenges filling those vacancies. These changes will continue to unfold, motivating the need to better understand the principal labor market in a post-COVID world.

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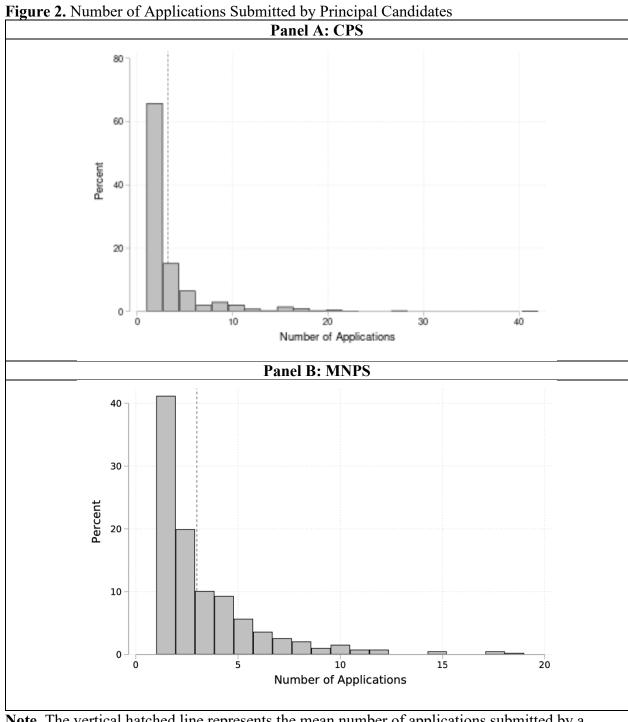
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Figure 1. Conceptualizing the Principal Job Search Process



Adapted from Manroop & Richardson (2016)



Note. The vertical hatched line represents the mean number of applications submitted by a candidate. Observations are on the applicant*year level.

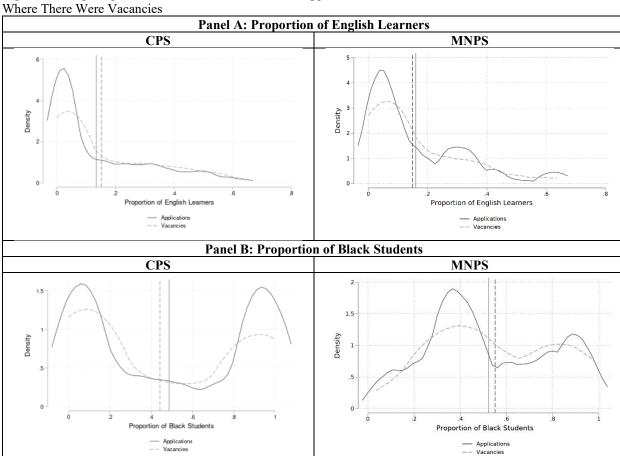


Figure 3. Comparing Characteristics of Schools Where Applications Were Submitted to Characteristics of Schools Where There Were Vacancies

Note. Kernel density plots pictured above. The hatched line represents the distribution of each characteristic across schools where there were vacancies during the year the vacancy occurred. The solid line represents the distribution of applications sent to schools with different levels of the characteristic.

Table 1. Data Description

	MNPS	CPS
Number of years of data	4	4
Number of principal vacancies	48	197
Number of applications	1,232	1,937
Mean applications per vacancy	24	10
Number of unique applicants	289	408
Number of unique applicant*years	389	597

Table 2: Applications by School Tier and Application Count for Internal Candidates

Panel A: Applications Characteristics by School Tier Worked

	MNPS				CPS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Employment at	All	Worked in	Worked in	Worked in	All	Worked in	Worked in
time of		Elementary	Middle	High		Elementary	High
application:		School	School	School		School	School
Applied to:							
Elementary School	0.67	0.92	0.70	0.45	0.82	0.93	0.50
Middle School	0.23	0.05	0.23	0.37			
High School	0.10	0.03	0.08	0.17	0.18	0.07	0.50
Observations	527	172	161	196	1937	1457	480

Panel B: Application Characteristics by Application Count

	MNPS			CPS		
	(1)	(2)	(3)	(4)	(5)	(6)
	Applied to 1 School	Applied to 2-3 Schools	Applied to 4+ Schools	Applied to 1 School	Applied to 2-3 Schools	Applied to 4+ Schools
Only Elementary	0.39	0.27	0.14	0.71	0.72	0.58
Only Middle	0.17	0.14	0.00			
Only High	0.27	0.04	0.00	0.29	0.09	0.03
Observations	131	92	90	287	161	149

Note: Observations in Panel A Columns 2–4 do not sum to the total in Column 1 because some candidates worked in early childhood or alternative schools in the prior year. The sum of Only Elementary, Only, Middle, and Only High in Column 1 does not add to 1.00 because some candidates applied to early childhood or alternative schools.

 Table 3: Describing Principal Candidates' Application Sets

	MN	PS	CPS		
	Applied to Current School	Applied Only to Other Schools	Applied to Current School	Applied Only to Other Schools	
All Applicants					
Count (Applicant*Years)	34	352	140	457	
Proportion	0.09	0.91	0.23	0.77	
Applied to Only One School					
Count (Applicant*Years)	17	142	107	180	
Proportion	0.11	0.89	0.37	0.63	
Applied to 2–3 Schools					
Count (Applicant*Years)	9	107	24	137	
Proportion	0.08	0.92	0.15	0.85	
Applied to 4+ Schools					
Count (Applicant*Years)	8	103	9	140	
Proportion	0.07	0.93	0.06	0.94	

Panel B: Mean Difference in School Characteristics between Schools Applicants Worked When Applying and Schools Where Applicants Applied

	MNPS	CPS
Proportion FRPL/ED	-0.02	0.11
•	(0.25)	(0.26)
Proportion Students with Disabilities	-0.00	0.01
-	(0.09)	(0.12)
Proportion Black	-0.08	0.05
-	(0.30)	(0.42)
Proportion Hispanic/Latino	0.03	0.03
•	(0.19)	(0.39)
Proportion White	0.06	-0.06
•	(0.24)	(0.19)
Proportion Asian	-0.01	-0.01
	(0.04)	(0.10)
Proportion Native/Indigenous	0.00	0.00
•	(0.00)	(0.00)
Proportion Pacific Islander/Native Hawaiian	0.00	0.00
-	(0.00)	(0.00)
Proportion English Language Learners	-0.01	0.01
	(0.16)	(0.19)
School Enrollment (100s)	2.21	.14
`	(7.00)	(5.39)
Observations	302	1937

Table 4. Application Characteristics by Candidate Race/Ethnicity

	MNPS				CPS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All	Black	Hispanic/ Latino	White	All	Black	Hispanic /Latino	White
Number of Applications	2.98	3.05	1.78	2.88	3.24	3.29	2.67	3.30
	(2.88)	(3.02)	(1.56)	(2.63)	(4.23)	(3.89)	(3.28)	(5.00)
Proportion Elementary	0.46	0.39	0.71	0.50	0.78	0.78	0.81	0.76
	(0.43)	(0.43)	(0.42)	(0.43)	(0.38)	(0.37)	(0.37)	(0.40)
Proportion Middle	0.20 (0.32)	0.26 (0.37)	0.04 (0.13)	0.15 (0.28)				
Proportion High	0.20	0.20	0.03	0.22	0.22	0.22	0.19	0.24
	(0.34)	(0.34)	(0.08)	(0.36)	(0.38)	(0.37)	(0.37)	(0.40)
Proportion FRPL/ED	0.49	0.52	0.31	0.45	0.72	0.78	0.78	0.61
	(0.20)	(0.18)	(0.21)	(0.19)	(0.17)	(0.13)	(0.17)	(0.20)
Proportion SWD	0.16	0.16	0.15	0.15	0.15	0.16	0.14	0.16
	(0.06)	(0.06)	(0.04)	(0.05)	(0.07)	(0.07)	(0.03)	(0.09)
Proportion English Language	0.15	0.15	0.21	0.16	0.14	0.06	0.29	0.16
Learners	(0.13)	(0.13)	(0.12)	(0.13)	(0.11)	(0.07)	(0.12)	(0.10)
Proportion Black	0.54	0.57	0.31	0.49	0.47	0.75	0.13	0.24
	(0.22)	(0.22)	(0.08)	(0.20)	(0.31)	(0.21)	(0.16)	(0.22)
Proportion Hispanic/Latino	0.19	0.20	0.27	0.20	0.35	0.16	0.71	0.44
	(0.13)	(0.14)	(0.16)	(0.12)	(0.24)	(0.16)	(0.23)	(0.19)
Proportion White	0.22	0.19	0.35	0.26	0.12	0.05	0.11	0.24
	(0.14)	(0.12)	(0.14)	(0.15)	(0.14)	(0.08)	(0.13)	(0.17)
Proportion Asian	0.04	0.03	0.06	0.04	0.04	0.02	0.03	0.06
	(0.03)	(0.03)	(0.05)	(0.03)	(0.04)	(0.03)	(0.04)	(0.05)
Observations	386	172	9	131	597	282	108	168

Note. Observations on the applicant-by-year level. Asian and Indigenous candidates are excluded due to small cell sizes. CPS is organized into only elementary and high schools.

Appendix Table 1: Sample of Interviewees

	MNPS	CPS
Proportion Female	0.69	0.55
Proportion Black	0.44	0.40
Proportion Hispanic/Latino	0	0.20
Proportion White	0.50	0.40
Proportion Asian	0.06	0
Proportion Elementary	0.56	0.6
Proportion Middle	0.31	0
Proportion High	0.13	0.40
N	16	20

Appendix Table 2. Principal Interview Coding Framework and Protocol Questions

	nterview Coding Framework and Protoco	
Code Name	Code Definition	Protocol Question (s)
Principal Background, Personal & Job History	Any reference to key education related roles principals had prior to becoming a principal; other things about their	Can you briefly walk me through the key education-related roles you had before you took this position?
Child Codes: -Education related roles -Non-education related roles	neighborhood and community in which they grew up in – their personal history; other prior experiences	Probe for prior roles such as teacher, department head, instructional coach, counselor, assistant principalship, school leadership team, school
-Community		advisory councils, formal mentor/induction roles, position in central office, etc.
	Any reference to work outside of education and information about how those roles shaped approach to leadership	Have you ever worked <u>outside of</u> <u>education</u> , either before you entered education or while working in education?
Leadership Motivations and Aspirations	Primary motivators for becoming a principal; motivation for going into administration/leadership more	What were your primary motivations for wanting to become a principal? At what moment in your career did
Child Codes: -Personal factors (family, identity, etc.) -Relational factors (i.e.,	generally	you decide to pursue administrative training and licensure? Why? What personal or environmental
social networks, peers, broader community) -Other factors related to motivations to pursue school leadership		factors played into your decision to want to become a principal? Probe for personal factors such as family, identity, obligations, Probe for relationships with teachers, peers,
Tapping & Recruiting Child Codes: -Tapped/recruited to	Any reference to being encouraged or recruited into prior positions, including into the principalship or as an interim principal	families, broader community, etc. When did you first begin applying for positions? Over how many years did you apply before you secured a principal job?
pursue leadership generally -Tapped/recruited to apply to certain open leadership positions, including AP, principal positions -Who did the tapping/recruiting	Any reference to being encouraged or recruited to apply to specific schools/positions and by whom	Were you ever encouraged or recruited into any of these prior positions? Probe for whether they experienced tapping, mentoring, or other direct encouragement from mentors/peers to pursue these prior roles
		Were you encouraged to apply to specific schools? Which ones and by whom (i.e., district/school staff, prep program faculty, other)?
Application and Selection Child Codes:	General aspects of principals' decision making when applying to and selecting jobs; General preferences for types of schools they preferred to work in or	What kinds of schools did you apply to?

Code Name	Code Definition	Protocol Question (s)
-Social/relational factors	apply to. General references to types of	Why did you apply to these specific
(i.e., peers, broader job-	schools that they were drawn to; factors	schools?
related social networks).	associated with application patterns	
-Individual/personal		How did you make these decisions?
factors (i.e., family		Probe for how many they applied to,
circumstances, commute		where they were located (generally)
times).		in current district, other districts,
-Application patterns,		makeup of staff/student populations in
including number of		the schools they applied to, etc.
schools applied to,		
references to types of open		What kinds of schools, if any, did you
positions		decide not to apply to? Why not?
Job Preferences		
-School characteristics		
(size, location, grade level		
configuration)		
-Student body		
characteristics		
(race/ethnicity, socio-		
economic factors)		

Appendix Table 3: Comparison of All Schools to Schools with Principal Vacancies

	M	NPS	С	PS
	All Schools in District	Schools with Vacancies	All Schools in District	Schools with Vacancies
Proportion FRPL/ED	0.45	0.49	0.80	0.75
	(0.20)	(0.24)	(0.20)	(0.24)
Proportion Students with Disabilities	0.15	0.16	0.18	0.16
	(0.11)	(0.07)	(0.17)	(0.13)
Proportion Black	0.46	0.55	0.50	0.44
	(0.25)	(0.27)	(0.41)	(0.41)
Proportion Hispanic/Latino	0.26	0.19	0.38	0.39
	(0.20)	(0.17)	(0.37)	(0.36)
Proportion White	0.25	0.22	0.08	0.11
	(0.19)	(0.19)	(0.15)	(0.19)
Proportion Asian	0.03	0.04	0.03	0.03
	(0.04)	(0.04)	(0.08)	(0.07)
Proportion English Learners	0.17	0.15	0.15	0.15
	(0.16)	(0.16)	(0.18)	(0.18)
School Enrollment (100s)	7.38	6.49	5.48	6.01
	(5.68)	(4.39)	(4.39)	(3.95)
Elementary School	0.41	0.50	0.71	0.77
Middle School	0.23	0.19		
High School	0.23	0.17	0.28	0.23
Observations	687	48	2730	197

Note: Observations on the school-by-year level.

Notes

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- ^{iv} For most analyses, we limit the sample of applicants to applicants currently employed by the districts because information about external candidates often was incomplete. In CPS, 66% of applications came from internal applicants. In MNPS, 68% of applications came from internal applicants.
- ^v We also examined patterns regarding proportions of FRPL or ED students and school size but omitted them from the text because patterns were not informative across both districts. In particular, FRPL enrollments showed little variation in CPS. School size differences were primarily a function of school level.
- vi Importantly, this analysis is showing patterns in *applications*, not *applicants*. Applicants are often represented multiple times in this distribution, and applicants who applied to many schools are represented much more than applicants who applied to fewer schools.
- vii Candidates' current roles often reflected these commitments as the applications data showed a close correspondence between the characteristics of applicants' current schools (at the time of application) and the ones to which they applied. Table 4, panel B shows the characteristics of the two schools side-by-side. There were few substantial differences in either district. The largest differences were in proportion of Black students in MNPS, where candidates applied to schools with 8 percentage points fewer Black students, and in proportion of economically disadvantaged students in CPS, where candidates applied to schools with 11 percentage points more economically disadvantaged students. The difference in share of economically disadvantaged students is substantially large: about a half a standard deviation difference.

¹ Although research has not examined job search directly, some studies offer indirect insights. For example, Loeb, Kalogrides, and Horng's (2010) study of principal movement across schools suggests that principals prefer schools they perceive to have better working conditions—schools associated with serving fewer students from low-income families and students of color. Similarly, evidence from a job applicant simulation found that assistant principals rated schools with lower achievement classifications less desirable (Winter & Morgenthal, 2002). As an important contrast, however, Farley-Ripple et al.'s (2012) study of career transitions found that working conditions were less of a factor in principals' work decisions.

ⁱⁱ This measure is based on a student's eligibility for such benefits as the Supplemental Nutrition Assistant Program or Temporary Assistance for Needy Families and generally sets a lower income threshold for being labeled "disadvantaged" than FRPL eligibility sets.

The administrative data span some years in which turnover and hiring among principals were affected by the COVID-19 pandemic. Importantly, however, the interview data universally speak to principals' hiring experiences prior to the pandemic.