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What is This?

Tapping the Principal Pipeline: Identifying Talent for Future School Leadership in the Absence of Formal Succession Management Programs

Jeannie Myung[1], Susanna Loeb[1], and Eileen Horng[1]

Abstract

Purpose: In light of the difficulty many districts face finding quality principal candidates, this article explores an informal recruitment mechanism of teachers to become principals, which the authors call tapping. The authors assess the extent to which current teachers are being approached by school leaders to consider leadership and whether this tapping prompts these teachers to consider pursuing leadership positions. **Research Design:** This study uses survey and administrative data on teachers and principals from the Miami-Dade County Public Schools from the 2007–2008 school year. The authors describe the extent to which principals tap teachers to become school leaders. They use multiple regression with and without school fixed effects to model which teachers are most likely to be tapped and which principals are most likely to tap teachers. They also estimate the extent to which

[1]Stanford University, Stanford, CA, USA

Corresponding Author:
Jeannie Myung, Stanford University, School of Education, CERAS 511,
520 Galvez Mall, Stanford, CA 94305, USA
Email: jeanniem@stanford.edu

tapping is effective at motivating teachers to become school leaders. **Findings:** A vast majority of principals report having been tapped by their own principal when they were teachers. The authors find that principals tend to tap teachers who feel better equipped to take on the principalship and who have more school-level leadership experience, but they also disproportionately tap teachers who are male and share their ethnicity. **Conclusions:** The findings provide evidence that principals are capable of effectively identifying and encouraging teachers with strong leadership potential to enter the principal pipeline, although additional training and a succession management plan may help ensure that teachers are selected based on clear leadership competencies.

Keywords

recruitment, promotion, careers, teachers, succession

As public accountability of schools has increased, so has the demand for effective school leadership. Numerous sources concur that principals are linchpins for school improvement (Bossert, Dwyer, Rowan, & Lee, 1982; Brewer, 1993; Hallinger & Heck, 1996; Hammond, Muffs, & Sciascia, 2001; Heck, Larsen, & Marcoulides, 1990; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Witziers, Bosker, & Kruger, 2003). However, although the need for effective leaders has intensified, many school districts struggle to find qualified candidates to fill vacant school leadership positions (Cooley & Shen, 2000; Fenwick & Pierce, 2001; Hammond et al., 2001; Malone & Caddell, 2000; Whitaker, 2001; Winter & Morgenthal, 2002). Principal shortage problems are particularly acute in certain types of schools—namely, schools serving high proportions of students who are poor, non-White, or do not speak English as their first language (Loeb, Kalogrides, & Horng, 2010). Principal shortages are also more common in high schools and middle schools than elementary schools (Whitaker, 2001). The time demands of the job and job stress associated with greater accountability are often cited as deterrents to potential applicants (Pounder & Merrill, 2001b; Winter & Morgenthal, 2002).

   A closer examination of the literature on principal school leadership shortages reveals that the problem is more complex than an inadequate supply to meet demand. States generally certify more than enough administrators to fill principal vacancies (Pounder, Galvin, & Shepherd, 2003; Lankford, O'Connell, & Wyckoff, 2003), and most open positions receive multiple applications (Roza, 2003). Despite this excess pool of individuals certified to be administrators, there remains an excess demand for school administrators, in part because

many certified individuals are not choosing to pursue school leadership positions (DiPaola & Tschannen-Moran, 2003), but more importantly because the demand is for a new type of principal—one with attributes and abilities beyond simply the possession of an appropriate administrative credential (Copland, 2001). Consequently, districts are not facing a labor shortage, so much as a skills shortage—characterized by the inability to fill school leadership positions with people who possess the skills necessary to be successful (Roza, 2003). This shortage may partially result from insufficient compensation for school leaders; however, the shortage could also stem from the recruitment and selection processes districts utilize. One strategy for diminishing the shortage is to increase the active recruitment of teachers to become school leaders—particularly those with the greatest potential to be effective leaders. Although most school districts do not have a formal recruitment process in place (Grunow, Horng, & Loeb, 2010), anecdotally, school districts commonly utilize informal recruitment of principals (Lortie, 2009), or "tapping," in lieu of formal recruitment processes; however, little research has been conducted on the prevalence, effects, or features of informal recruitment of teachers to become principals.

This study examines the phenomenon of tapping in one large urban school district. We assess the extent to which current teachers are being approached by school leaders to consider leadership and whether this tapping prompts these teachers to consider pursuing leadership positions. Furthermore, we analyze which teachers are being tapped and which principals are tapping teachers. Most research done on the principal pipeline uses data from individuals enrolled in administrative credentialing programs, assistant principals, or beginning principals (see, e.g., Browne-Ferrigno, 2003; Pounder & Merrill, 2001a; Shumate, Muñoz, & Winter, 2005; Stark-Price, Muñoz, Winter, & Petrosko, 2006). Unlike these data sources, our data set is representative of all teachers in this large district, providing evidence on the principal pipeline from the perspective of the entire pool of potential principals, not just those who have already expressed aspirations for school leadership. These comprehensive data allow us to examine the tapping phenomenon—including who is tapping and who is being tapped—as well as the impact tapping has on motivating teachers to pursue the principalship.

Background: Contest Versus Sponsored Mobility

In theory, every teacher has the same opportunity to pursue a school leadership position by earning an administrative credential. This process for career

advancement into administration fits loosely into what is called contest mobility (Turner, 1960). Turner (1960) distinguished between two models of occupational mobility: contest and sponsored mobility. Under contest mobility, every candidate has an equal chance to attain a position through fair and open procedures and each candidate's success depends on his or her merits. If hiring authorities are skillful at identifying and selecting the most promising candidates, then this system provides equal opportunities for equally promising leaders and reflects pure contest mobility. In practice, however, contest mobility may not be the best description of the process of principal selection in districts.

Informal processes may facilitate the transition to leadership for some teachers and not for others. These processes have been termed sponsored mobility, under which certain teachers are recruited early for the "fast track" to leadership by current leaders based on criteria they wish to see in their peers (Turner, 1960). A study of the promotion patterns of suburban principals in Chicago found a prevalence of sponsorship mobility in the promotion of principals. Lortie (2009) found close to three out of every four principals promoted within the district had been "sponsored" by a superior to attain their principal position.

Although the term *sponsored mobility* implies a unidirectional process, in actuality it is likely to be a multidirectional phenomenon. Often, teachers interested in becoming principals seek out opportunities to interact with the principal and take on additional responsibilities at the school to demonstrate their administrative ability. These processes are informal and not explicit, but if successful the teacher gets the attention of his or her superior (Greenfield, 1977). In the process, these teachers not only gain a sponsor but also gain meaningful opportunities to learn about the role and become oriented toward the principalship before ever assuming the role.

Sponsored mobility may also encompass multiple actions of sponsorship. For example, a teacher may be encouraged by his of her principal to pursue school administration more than once or be encouraged by multiple individuals—including principal, assistant principals, and district office staff—concurrently or consecutively.

Contest mobility is typically considered more egalitarian than sponsored mobility, as sponsored mobility is frequently associated with the social reproduction of inequality as a consequence of homosocial reproduction (i.e., the tendency for people to establish sponsorship ties with people with whom they share demographic characteristics; Kanter, 1993). Stereotypically, these "sponsors" are White and male, leaving non-Whites and women with the challenge of developing network ties across ethnic and gender lines.

Although sponsored mobility has the disadvantage of potentially exacerbating inequities, it also has the advantage of utilizing a direct recruitment strategy. Recruitment can increase the pool of candidates for leadership positions and, if done well, can target individuals with the potential to be most effective, thus improving the quality of the pool of candidates for leadership positions. Rather than depending solely on individuals to self-select themselves into leadership positions, sponsored mobility allows those in leadership positions to identify and encourage promising individuals. Current school leaders may be well suited to recruit potential principals from their teaching ranks, as they are acquainted with the demands of the job. Furthermore, through day-to-day interactions with and observations of teachers, school leaders are uniquely positioned to identify and foster the intangible leadership skills in teachers, which are necessary to successfully lead a school but are particularly difficult to capture on standardized tests or resumes alone.

There is some evidence that sponsored mobility can be systematized to reduce bias that can arise from informal recruitment processes. Succession management is a common strategy utilized in the private sector to sustain effective leadership. It includes a set of practices to identify, develop, and sustain leadership (Leibman, Bruer, & Maki, 1996). The growth of succession management has been driven in large part by the recognition that talented managers are a scarce resource, the lifetime loyalty contract is largely an artifact of the past, and leadership development interventions can produce genuine long-term results (Conger & Fulmer, 2005). Purposeful succession management processes enable organizations to grow their own leaders by strategically selecting from the already existing talent pool within the organization and grooming those individuals through developmental experiences that will give them the skills they need to meet the future demands of their organization. A district with an effective succession management system would identify teachers with high leadership potential early and provide them with the necessary leadership development opportunities for a career in administration; however, few districts have such systematic processes in place, particularly for school leadership positions (Grunow et al., 2010).

One explanation for the dearth of succession management systems in school districts is because succession management runs counter to the culture of public education in the United States. The practice of formally identifying promising teachers from among the entire teaching staff in a school clashes with the egalitarian ethic among teachers, a long-standing norm among teachers that contends that all teachers are equal and thus deserve the same rewards and recognition (Childs-Bowen, Moller, & Scrivner, 2000; Lortie, 1975). A manifestation of this norm is the reliance on the single pay salary schedule

and the resistance to alternative compensation systems for teachers. Succession management that introduces transparent status differences based on leadership potential stands to disrupt this status quo. Under the egalitarian ethic, a teacher's decision to pursue a career in administration is predicated on his or her own personal desires. In theory, the dominant process for career advancement in school districts adheres to the egalitarian ethic, under which teachers choose whether or not to pursue a school leadership position, and most of those who choose this path end up with a job in administration.

Although most school districts lack a formal succession management system—based on criteria for leadership recruitment aligned with district goals that are widely understood by current and prospective leaders—some utilize informal sponsored mobility practices (Lortie, 2009). In other words, in the absence of a succession management system, principals and others often identify and encourage teachers whom they think should become school leaders. The outcomes of this strategy could be positive or negative. Assuming that tapping does indeed increase a teacher's interest in pursuing school leadership, if principals are skillful at identifying promising teachers with the competencies to be effective school leaders, tapping can be beneficial. However, if principals encourage teachers who are not the best equipped to successfully lead schools, tapping can be counterproductive.

This article uses rich data from one large urban district to examine the identification of potential teachers for school leadership in the absence of a formal succession management system. Specifically, the study asks the following four questions:

1. To what extent are principals tapping teachers for school leadership?
2. Which teachers are most likely to be tapped?
3. Which principals are most likely to tap teachers?
4. Is tapping effective at motivating teachers to become school leaders?

The next two sections describe the data and methods used in this study. We then address each of the research questions and conclude with a discussion of the implications of our results.

Data

The data from this study come from the Miami-Dade County Public Schools (M-DCPS) from the 2007–2008 school year. M-DCPS is the largest school district in Florida and the fourth largest in the country in terms of student enrollment with more than 380,000 students. The data include surveys of

teachers, principals, and assistant principals that we conducted in the spring of 2008. We link the survey responses to administrative data files on all staff and students and to publicly available school-level information from the Common Core of Data and from the Florida Department of Education.

Survey Data

We distributed surveys online in April 2008 to every teacher, assistant principal, and principal in the district. We received responses from 15,840 teachers (82%), 583 assistant principals (85%), and 312 principals (91%). Since we are examining teachers' interest in pursuing the principalship, using the entire population of teachers would introduce selection bias because a subset of prior teachers who were interested in the principalship and were currently in administrative positions would be systematically excluded from our sample. Given that in this district teachers have, on average, 11 years of teaching experience before they move into an assistant principal position, the most frequent first administrative position, we limit our sample to those teachers with 10 years of teaching experience or less to minimize this selection bias. Limiting the sample to these less experienced teachers reduces the sample size to 8,197 teachers.

Table 1 provides descriptive statistics for our sample of teachers. Of the teachers who have less than 11 years of experience in the district and responded to the survey, 79% are female, 25% are Black, 24% are White, and 49% are Latino. The average teacher in this sample is 38 years old and has 3.5 years of teaching experience. The teachers hold a wide range of teaching positions; in order from greatest representation in our data set to the least are kindergarten to third grade teachers, other position, fourth to sixth grade teachers, exceptional student education teachers, English for speakers of other languages teachers, reading teachers, secondary English teachers, secondary math teachers, secondary science teachers, secondary social science teachers, foreign language teachers, prekindergarten teachers, counselors, and physical education teachers.

Our analyses focus on informal mechanisms for encouraging teachers to pursue administrative positions—specifically, whether teachers have been "tapped" for the principalship. This information comes from teachers' responses to a particular survey item that asked them whether their current school principal ever "approached you to suggest that you eventually become a principal or assistant principal." Tapping can vary widely in form and intensity—as examples, a principal may casually mention in passing that a teacher should consider becoming a principal or a principal might provide

Table 1. Descriptive Statistics

Variable	M	SD	Min	Max
Teachers				
Teacher background characteristics				
Tapped for principalship by principal	0.09			
Female teacher	0.79			
White teacher	0.24			
Black teacher	0.25			
Hispanic teacher	0.49			
Other race teacher	0.02			
Years of experience (in district)	3.49	3.04	0	10
Teaching position				
Pre-K teacher	0.03			
K-3rd grade teacher	0.28			
4th-6th grade teacher	0.16			
Counselor	0.03			
Exceptional student education teacher	0.15			
English for speakers of other languages teacher	0.08			
Foreign language teacher	0.05			
Reading (K-12) teacher	0.08			
Secondary English teacher	0.07			
Secondary math teacher	0.07			
Secondary science teacher	0.06			
Secondary social science teacher	0.06			
PE teacher	0.02			
Other	0.21			
Plans for the future				
Remain a teacher until I retire	0.4			
Be a teacher leader	0.29			
Be a school assistant principal	0.19			
Be a school principal	0.11			
Work in a K-12 school in another role	0.25			
Work in a regional center or central district office	0.13			
Work in education, outside of K-12 schools	0.21			
Leave education temporarily	0.08			
Pursue a career outside of education	0.18			
Leadership experience				
Grade-level head or department head	0.24			

(continued)

Table 1. (continued)

Variable	M	SD	Min	Max
Schoolwide leadership team member	0.13			
Educational Excellence School Advisory Councils (EESACs) member	0.12			
Committee leader	0.04			
Union representative	0.04			
Professional development workshop leader or instructor	0.11			
Other	0.1			
None	0.53			
Satisfaction being a teacher	3.43	0.73	1	4
Schools				
Elementary school	0.54			
Middle school	0.17			
High school	0.24			
School size (in 100s)	15.13	10.55	0.06	45.09
Free or reduced lunch rate	65.64	21.87	9.61	98.3
Percentage of Black students	0.31	0.33	0	0.97
Percentage of Hispanic students	0.59			
School grade, 2006	3.95	1.12	1	5
Principals				
Principal background characteristics				
Female principal	0.64	0.48		
White principal	0.25	0.43		
Black principal	0.23	0.42		
Hispanic principal	0.39	0.49		
Principal years of exp as a principal (in district)	2.96	3.19	0	17
Teacher–principal dyad demographic match				
Teacher and principal race match	0.41			
Teacher and principal gender match	0.54			

release time for a teacher to engage in school leadership opportunities as preparation for an administrative position. Our variable captures both lower and higher intensity types of tapping, as long as they are initiated by the principal. The survey prompt stipulated proactiveness on the part of the principal by asking whether the teacher was approached by the principal to suggest that he or she consider the principalship. Figure 1 shows that 9% of teachers in our sample report being tapped by their principal. We asked a similar question
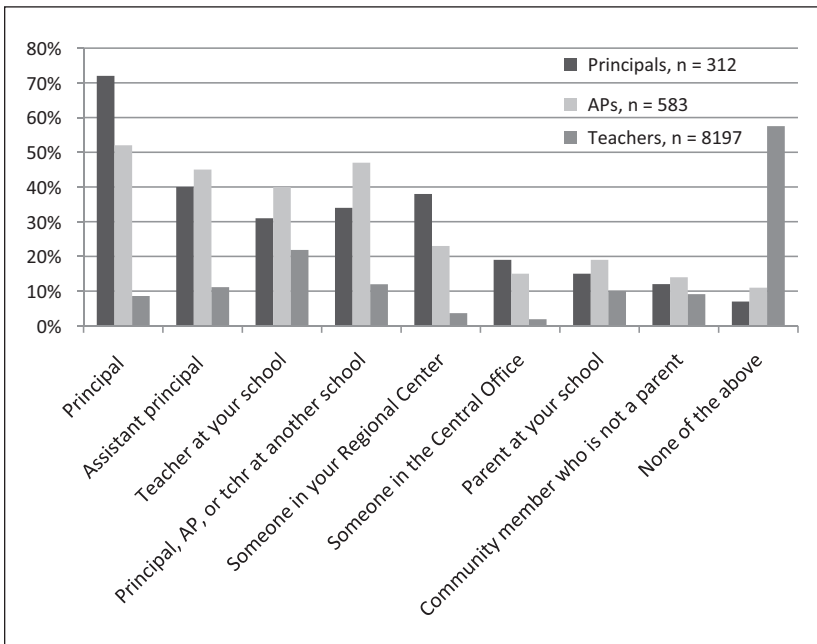
Figure 1. Tapping experiences of current principals, assistant principals, and teachers

on surveys of principals and assistant principals in the district, asking all administrators whether they had been encouraged in their past to consider principalship by their principal and/or by others. Among current principals, 72% were tapped by a former principal and 52% of assistant principals were tapped by a former principal.

In addition, the survey asked a number of questions to assess teachers' interest in the principalship and leadership positions more broadly. For example, as Table 1 displays, 11% of teachers indicated that they have plans to be a school principal at some point in their future career. We also have measures of how appealing, or unappealing, teachers consider various aspects of the job of the principal, ranging from work hours required to responsibility for student achievement gains. These variables are measured on a 5-point scale ranging from very unappealing to very appealing. Figure 2 shows that, on average, teachers find the most appealing aspects of the principalship to be the ability to influence school change, the salary, and tasks related to building relationships with staff and students and the least appealing to be the work
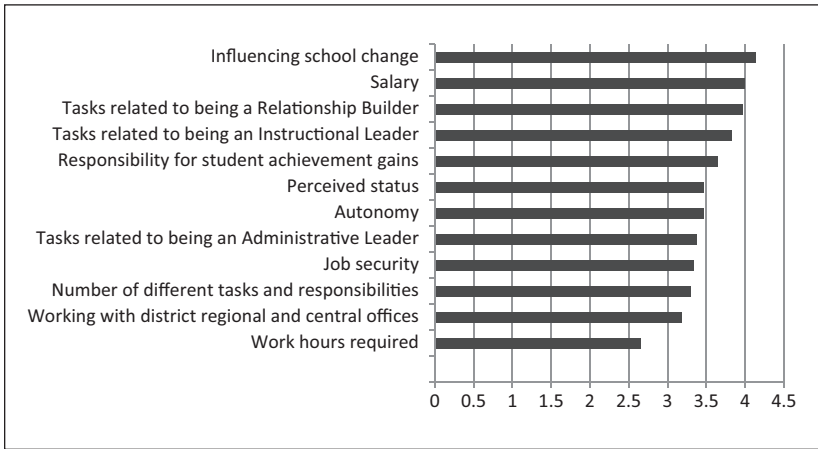
Figure 2. Appeal of characteristics of the principalship to teachers

hours required, working with the district regional and central offices, and the quantity of different tasks for which the principal is responsible.

We also measure teachers' preparation for school leadership responsibilities with both an external and an internal measure of leadership capacity. First, to capture teachers' externally demonstrated leadership capacity, teachers were asked to indicate all of the school leadership positions they had held (by selecting among a list of leadership positions provided on the survey). We created the list of possible positions in collaboration with staff from the M-DCPS Central Office. Table 1 shows that 24% of teachers in our sample have experience as a grade-level head or head of their department, 13% have been part of their school's leadership team, 12% have been members of their school's Educational Excellence School Advisory Council, 11% have led a professional development workshop, 10% have had other leadership experience, 4% have been a committee leader, and 4% have served as a union representative.

To operationalize a teacher's internal leadership skills, we asked teachers to assess their own preparation for a variety of specific school leadership tasks. As part of the survey, teachers were presented with 42 job tasks common to the principalship and were asked to rate how prepared they felt to be responsible for each task on a 4-point scale ranging from *unprepared* to *very prepared*. To develop this list of tasks, we began with the broad categories of principal duties described by Spillane, Camburn, and Pareja (2007), then added

substantially more specificity to the task list. We developed this specificity through consultation with principals in multiple states and through discussions with participating district leaders. Our expanded list was subsequently refined through pilot studies in local school districts. The surveys also provide information about teachers' job satisfaction. Teacher satisfaction ranges from 1 (*dissatisfied*) to 4 (*very satisfied*). Teachers are generally satisfied with their jobs; the average teacher satisfaction response is 3.4.

We use exploratory factor analysis of teachers' responses to identify patterns in the teachers' preparation self-ratings. Bartlett's sphericity test ($p < .001$) and the Kaiser–Meyer–Olkin statistic (0.978) both confirmed the adequacy of the data for factoring. We then applied a varimax factor rotation to ensure orthogonality between the factors and standardized the factors to have of mean 0 and standard deviation 1. We identify four distinct underlying dimensions of principal tasks for which teachers feel prepared, which we have labeled Instruction Management, Organization Management, Fostering Relationships, and Administration.

The principal survey similarly asked the principals to assess themselves on how well they are able to complete each of same 42 tasks. Grissom and Loeb (2010) used an exploratory factor analysis identical to the one we described above to categorize principals' self-assessment of their effectiveness. They identify five efficacy categories—Instruction Management, Internal Relations, Organization Management, Administration, and External Relations. We replicate their factors of efficacy here, each with a mean of zero and a standard deviation of 1.

Administrative Data

We merge survey data with administrative data provided by the district for the academic year 2007–2008, which we use to measure different school characteristics and teacher background characteristics that may influence principal hiring or teacher career decisions. Table 1 shows that approximately 54% of teachers in our sample are in elementary schools, 17% of teachers are in middle schools, and 24% are in high schools. On average, the schools in our sample serve about 1,500 students, have 66% of their students receiving free or reduced-price lunch, and have 31% Black students.

In addition to principal and teacher demographic traits, we use teacher and principal trait interactions in our analyses to study the extent to which principals are homophilic in their tapping decisions. Of teacher–principal dyads, 23% are Hispanic–Hispanic, 7% are Hispanic–Black, 12% are Hispanic–White,

6% are Black–Hispanic, 11% are Black–Black, 10% are White–Hispanic, 7% are White–White, 6% are Black–White, and 4% are White–Black. In terms of gender, 10% of the teacher–principal dyads are male–female, 22% are female–male, 45% are female–female, and 8% are male–male. These data also include school performance data based on Florida's A+ accountability system. Florida grades each school on a 5-point scale (A, B, C, D, F).[1] The average school grade is about a B.

Method

This article seeks to answer four questions about the use of tapping as an informal recruitment strategy in the absence of a formal succession management system:

1. To what extent are principals tapping teachers for school leadership?
2. Which teachers are most likely to be tapped?
3. Which principals are most likely to tap teachers?
4. Is tapping effective at motivating teachers to become school leaders?

We use descriptive analyses of the survey data to answer the first question. To answer the second question of which teachers are being tapped, we use logistic regression to estimate the likelihood of a teacher being tapped by his or her principal as a function of a set of teacher characteristics. We begin with teacher background characteristics—gender, race and years of experience—as predictors of likelihood of being tapped. In the following models we include one new set of variables of interest at a time—teaching position, leadership experience, job satisfaction, preparation for leadership tasks, and interest in becoming a school principal. Teachers are likely to systematically sort across schools, so it may appear that tapping differs by teacher characteristics when in fact the differences may be driven by variation in tapping across schools. To adjust for school differences in tapping we include fixed effects at the school level. School fixed effects also account for different rates of tapping across principals.

We then consider which types of principals are most likely to tap their teachers. To answer our third research question, we use a logistic regression model at the teacher level for whether or not they have been tapped by their principal that includes teacher characteristics as well as school and principal characteristics. This approach is similar to the one for the second research question except that it does not include school fixed effects. Not including the fixed effects allow us to see how tapping varies across schools controlling for

teacher characteristics, although the relationship between tapping and teacher characteristics within schools is not as clear.

In answering the fourth question, we investigate whether tapping motivates teachers to pursue leadership positions by modeling teachers' interest in the principalship. This question is difficult to answer using logistic regression because tapping may be endogenous to interest in the principalship. Principals are likely to tap teachers who express interest in leadership as well as those who show promise as future leaders (e.g., by exhibiting preparation to take on school leadership responsibilities). Because of the richness of our data, we are able to control for many of these salient correlates, thereby reducing the selection effect. We use logistic regression to predict teachers' interest in the principalship controlling for leadership experience, self-assessments of preparation for principal tasks, appeal of the job of the principal, interest in attaining a principal position in the future, and current job satisfaction, as well as school and principal characteristics. To further investigate whether tapping is an effective lever for influencing teacher's interest in the principalship, we describe current administrators' past experience with tapping. We observe the current cadre of administrators, both principals and assistant principals, to assess whether a significant proportion of them had been encouraged to become principals when they were teachers and, if so, by whom. We also examine how tapping experiences of current administrators differ by their background characteristics.

Results

To What Extent Are Principals Tapping Teachers for School Leadership?

Teachers are encouraged to pursue the principalship by a range of people. Of current teachers, 34% report having been approached by at least one person encouraging them to become a principal. The survey also asked current administrators about their experiences with tapping when they were teachers; 93% of principals and 89% of assistant principals report being encouraged to become a principal by at least one individual, a far higher percentage than for teachers. Figure 1 describes who survey respondents report tapped them. Among current teachers, principals are not the primary source of tapping in the district—teachers receive the most encouragement to consider school leadership from their peers; 22% of teachers have been tapped by other current teachers in their school. In addition to their colleagues, current teachers

were tapped by school leaders or teachers at other schools (12%), their assistant principals (11%), and their principals (9%).

Former principals are by far the most dominant source of tapping among current principals, but we find that current principals report being tapped by other sources as well. For example, 40% of current principals report having been encouraged by an assistant principal to become a principal, and 38% report having been tapped for the principalship by someone from their regional center. In contrast, only 7% of current principals had not been tapped by one of these sources. On average, current principals were tapped by nearly three different sources, and some by as many as five of these nine different sources ($M = 2.8$, $SD = 2.2$).

Compared to principals, assistant principals (APs) are less likely to have been tapped by their principal (52%), someone in their regional center (23%), and someone representing the district's central office (15%). However, a larger proportion of current APs than principals have been tapped for the principalship by a teacher at their school (40%), someone from another school (47%), a parent (19%), and a community member (14%). Similar to principals, only a small fraction of current APs (11%) have not been tapped for the principalship by any of these sources. On average, APs have been tapped by nearly four different sources and some by as many as nine of these nine different sources ($M = 3.7$, $SD = 2.4$).

The rest of the article focuses on the principals' tapping of teachers. We focus on principal tapping of teachers because they are the primary source of tapping for principals and APs. In addition, current principals understand the demands of the principalship and are able to observe teachers in instructional and leadership settings to identify teachers that exhibit the potential to meet those demands of the principalship. The significance of being tapped by one's principal is a hypothesis we test in our fourth research question. Our third research question focuses on the types of principals who are most likely to tap teachers; however, we first turn our attention to the types of teachers who are most likely to be tapped.

Which Teachers Are Most Likely to Be Tapped?

To uncover the teacher characteristics associated with a higher likelihood of being tapped by one's principal, we predict whether a teacher is tapped as a function of teacher characteristics. As described above, we include fixed effects and so are asking which teachers within a given school are most likely to be tapped.

Table 2 presents the results, providing odds rations and *z* statistics. The first model includes only teacher background characteristics; the second model adds their job position. The third adds to that school leadership experience including department head, union representative, committee leader, and a variety of other positions. The fourth and fifth columns respectively add teachers' satisfaction and their perceptions about their preparation for the tasks of the principalship combined into the categories of Instruction Management, Administration, Organization Management, and Fostering Relationships. The final column adds in teachers' expressed interest in becoming a principal. Table 2 shows that teacher gender and race are significant predictors of being tapped, even after controlling for teaching position, school leadership experience, preparation for school leadership responsibilities, job satisfaction, and interest in becoming a principal in the future. Within schools, male teachers are almost twice as likely to be tapped by their principals as female teachers, and Black and Hispanic teachers are 66% and 37% more likely to be tapped than their White colleagues, respectively.

Gender and race are not the only significant predictors of being tapped. Principals also appear to be tapping teachers who are better equipped to take on school leadership responsibilities. Specifically, teachers with higher self-ratings of preparation in each school leadership task dimension are significantly more likely to be tapped. In addition, school-level leadership experience is the strongest predictor of being tapped. Teachers with leadership experience of any kind, with the exception of union leadership, are significantly more likely to be tapped than teachers lacking such experience. In particular, membership on the schoolwide leadership team increases the odds of a teacher being tapped by more than three times.

Which Principals Are Most Likely to Tap Teachers?

When the fixed effect is removed and principal and school characteristics are added to the model, the odds ratios on the teacher variables remain consistent with the logistic regression above.[2] Removing the school fixed effects and including school-level predictors affords us the ability to investigate which principals are more likely to tap teachers. However, we acknowledge two limitations to this approach: the difficulty of separating principal and school effects as well as being able to control for only observable school characteristics. Table 3 presents these findings. Controlling for school variables, we find that male and female principals do not appear to be tapping teachers at significantly different rates. White principals are significantly more likely to tap teachers for the principalship than Black or Hispanic principals.

Table 2. Logistic Regression Results, With School Fixed Effects, Predicting the Likelihood of a Teacher Being Tapped for Principalship

	(1)	(2)	(3)	(4)	(5)	(6)
Teacher background characteristics						
Female teacher	0.56***	0.59***	0.51***	0.49***	0.56***	0.62***
	(5.68)	(4.92)	(5.76)	(5.82)	(4.58)	(3.78)
Black teacher	1.66***	1.64***	1.93***	2.01***	1.82***	1.49**
	(3.82)	(3.70)	(4.50)	(4.67)	(3.94)	(2.55)
Hispanic teacher	1.37***	1.47***	1.75***	1.79***	1.67***	1.56***
	(2.67)	(3.16)	(4.26)	(4.25)	(3.71)	(3.19)
Other race teacher	1.09	1.04	1.10	1.04	0.90	0.86
	(0.24)	(0.11)	(0.24)	(0.10)	(0.24)	(0.34)
Years of experience (in district)	1.19***	1.19***	1.05***	1.05***	1.05***	1.07***
	(13.01)	(12.63)	(3.00)	(2.99)	(3.00)	(3.82)
Teaching position						
Pre-K teacher		0.20***	0.35**	0.37**	0.41**	0.41**
		(3.94)	(2.49)	(2.30)	(1.97)	(1.98)
4–6 teacher		1.65***	1.44***	1.45***	1.41***	1.37**
		(4.59)	(2.97)	(2.96)	(2.66)	(2.40)
Counselor		1.13	1.01	0.96	0.83	0.93
		(0.47)	(0.03)	(0.13)	(0.56)	(0.23)
Exceptional student education teacher		1.16	1.30**	1.28*	1.20	1.23
		(1.17)	(1.96)	(1.77)	(1.26)	(1.44)
English for speakers of other languages teacher		0.93	0.96	0.97	0.94	0.95
		(0.44)	(0.22)	(0.19)	(0.34)	(0.24)
Foreign language teacher		0.45***	0.68	0.69	0.63*	0.64
		(3.10)	(1.44)	(1.35)	(1.67)	(1.59)
Reading (K-12) teacher		1.53***	1.22	1.15	1.08	1.08
		(2.84)	(1.18)	(0.81)	(0.44)	(0.39)
Secondary English teacher		0.92	0.71	0.75	0.71	0.70
		(0.41)	(1.53)	(1.25)	(1.47)	(1.49)
Secondary math teacher		1.08	1.14	1.13	1.11	1.06
		(0.39)	(0.62)	(0.56)	(0.48)	(0.25)
Secondary science teacher		0.90	0.82	0.85	0.84	0.90
		(0.49)	(0.83)	(0.65)	(0.68)	(0.43)
Secondary social science teacher		1.51**	1.15	1.13	1.07	1.02
		(2.11)	(0.61)	(0.55)	(0.28)	(0.09)
PE teacher		0.75	1.29	1.37	1.36	1.37
		(0.96)	(0.80)	(0.97)	(0.94)	(0.97)
Position—other		1.53***	1.25*	1.28*	1.20	1.21
		(3.70)	(1.76)	(1.88)	(1.32)	(1.37)

(continued)

Table 2. (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
Leadership experience						
Grade-level head or department head			2.36***	2.50***	2.28***	2.28***
			(8.24)	(8.47)	(7.47)	(7.33)
Schoolwide leadership team member			3.87***	3.73***	3.30***	3.02***
			(11.83)	(11.17)	(9.93)	(8.96)
Educational Excellence School Advisory Councils member			1.66***	1.78***	1.70***	1.59***
			(4.37)	(4.81)	(4.38)	(3.73)
Committee leader (e.g., Title I District Advisory Council)			1.64***	1.59***	1.40*	1.37*
			(2.96)	(2.71)	(1.94)	(1.80)
Union representative			1.31	1.28	1.14	1.19
			(1.44)	(1.30)	(0.68)	(0.87)
Professional development workshop leader or instructor			1.87***	1.88***	1.73***	1.74***
			(5.18)	(5.04)	(4.28)	(4.25)
Leadership—other			2.12***	2.04***	1.85***	1.74***
			(5.84)	(5.36)	(4.56)	(4.02)
Satisfaction being a teacher				1.14*	1.09	1.10
				(1.88)	(1.27)	(1.41)
Preparation for leadership tasks						
Instruction Management					1.35***	1.30***
					(5.50)	(4.67)
Organization Management					1.32***	1.24***
					(5.20)	(3.93)
Internal Relations					1.34***	1.30***
					(4.88)	(4.28)
Administration					1.18***	1.12**
					(3.04)	(2.08)
Interest in becoming a school principal						3.16***
						(9.58)
Observations	7,268	7,268	7,268	6,473	6,441	6,441

Note. Absolute value of z statistics is in parentheses.
*Significant at 10%. *Significant at 5%. **Significant at 1%.

Our model also includes principals' self-ratings of effectiveness in different school leadership task dimensions, and we find evidence that principals who consider themselves effective in Organization Management are significantly more likely to tap teachers. We do not find a significant relationship between tapping and principal efficacy in the other dimensions.

Table 3. Logistic Regression Results, Predicting the Likelihood of the Teacher Being Tapped for Principalship

Principal Characteristics Only	(1)	(2)	(3)	(4)	(5)
Middle school	0.89				0.89
	(0.13)				(0.16)
High school	0.75				0.80
	(0.20)				(0.27)
School size (in 100s)	0.99				1.00
	(0.01)				(0.01)
Free or reduced lunch rate	1.00				1.01**
	0.00				0.00
Percentage of Black students	1.56**				1.46
	(0.34)				(0.44)
School grade, 2006	1.12				1.22**
	(0.08)				(0.10)
Female principal		1.05		1.11	0.81
		(0.11)		(0.14)	(0.12)
Black principal		0.93		0.86	0.70*
		(0.12)		(0.12)	(0.13)
Hispanic principal		0.89		0.82	0.75*
		(0.11)		(0.11)	(0.12)
Principal years of exp as a principal (in district)	1.03	(0.02)		1.03	(0.02)
P. effectiveness—Instruction Management			1.05		1.02
			(0.05)		(0.06)
P. effectiveness—Internal Relations			1.01		0.98
			(0.05)		(0.06)
P. effectiveness—Organization Management			1.09*		1.11*
			(0.06)		(0.07)
P. effectiveness—Administration			1.05		1.06
			(0.04)		(0.05)
P. effectiveness—External Relations			0.96		1.01
			(0.05)		(0.07)
Teacher and principal race match				1.20**	1.29**
				(0.11)	(0.15)
Teacher and principal gender match				0.91	0.94
				(0.09)	(0.12)
Observations	7,678	7,049	6,826	7,049	5,752

Note. Robust standard errors are in parentheses. All models control for teacher gender, race, teaching position, leadership experience, job satisfaction, and preparation for principal tasks.
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

The final column of Table 3 adds in variables for teacher and principal race and gender match. Although we can detect no significant relationship between gender match and tapping, we do find that race match increases the probability of tapping. Teachers are almost 30% more likely to be tapped if their race matches the race of their principal. Race match remains a significant predictor of tapping even when school fixed effects are included in the model.[3]

Teacher–principal race interactions. The previous models indicate that having a principal of the same race increases the odds of that teacher being tapped. We investigate this further by adding race-specific teacher by principal race interaction terms. We include each interaction term individually in separate models, controlling in each specification for teacher background characteristics, teaching position, leadership experience, school characteristics, job satisfaction, teacher sense of preparation for principal tasks, principal characteristics, and principal effectiveness. Table 4 presents the odds ratios and the *z* statistics on the interaction terms, which should be interpreted in reference to the likelihood of a White principal tapping a White teacher. The results we find are largely consistent with theories of homophily. Hispanic principals are significantly more likely to tap Hispanic teachers and significantly less likely to tap Black teachers. White principals are significantly less likely to tap Hispanic teachers. The coefficients on the Black teacher–Black principal dyad as well as the Black teacher–White principal dyad are positive but not statistically significant. Although same-race tapping occurs generally, it appears to occur less White to White than Hispanic to Hispanic.

Teacher–student composition race interactions. Our analysis reveals principals' proclivity to tap teachers with whom they share the same race, controlling for teacher background, sense of preparation, and leadership experiences. An alternative explanation to homophily for the significance of the teacher–principal race dyad in predicting tapping is the possibility that principals are strategically tapping those teachers whose race is representative of their school ethnic composition. To test whether the actual impact of a teacher's race on a principal's decision to tap teachers is based on representation of the student body, we interact teacher race with the proportion of students in the school of the teacher's same race. We include these variables in a logistic regression model predicting the likelihood of being tapped and do not find these interactions to be statistically significant. Strategic tapping based on selecting future leaders representative of the current school's demographics does not explain the significance of the teacher–principal race match in tapping. This suggests that, all else equal, principals are indeed more likely to tap teachers who are the same race as themselves.[4]

Table 4. Logistic Regression Results, Predicting the Likelihood of a Teacher Being Tapped for Principalship

Odds ratios for teacher–principal race interaction terms	
Hispanic teacher and Hispanic principal	1.77**
	(0.40)
Hispanic teacher and Black principal	0.82
	(0.22)
Hispanic teacher and White principal	0.62**
	(0.15)
Black teacher and Hispanic principal	0.61*
	(0.16)
Black teacher and Black principal	1.28
	(0.34)
Black teacher and White principal	1.31
	(0.34)
White teacher and Hispanic principal	0.76
	(0.21)
White teacher and Black principal	0.83
	(0.27)
Odds ratios for teacher–principal gender interaction terms	
Male teacher and female principal	1.05
	(0.26)
Female teacher and male principal	1.05
	(0.26)
Female teacher and female principal	0.95
	(0.24)

Note. Absolute value of z statistics is in parentheses.

Teacher–principal gender interactions. The coefficient on gender is consistently significant in all specifications, which reveals that principals are more likely to tap male teachers for principalship than female teachers. However, unlike the coefficient on teacher–principal race match, the coefficient on teacher–principal gender match is not significant in either of the regression models presented in Table 2 and Table 3. To check for any heterogeneity in the gender match effect, we run the logistic regression again with teacher by principal gender interaction terms. We include each interaction term individually in separate models, controlling in each specification for teacher background characteristics, teaching position, leadership experience, school characteristics, job satisfaction, teacher sense of preparation for principal tasks, principal characteristics, and principal effectiveness. The odds ratios

are presented in Table 4. We do not find any latent heterogeneity in teacher by principal gender interactions.

The female principal preference for male teachers is implied by the combination of the following two findings: (a) the statistically significant gender main effect that indicates that female teachers are less likely to be tapped in general and (b) the lack of a significant principal–teacher gender match interaction effect over and above the main effect. These two findings combine to indicate that, together with male principals, female principals have a preference for tapping male teachers, even after controlling for teacher leadership experiences, preparation for leadership, and teacher interest in becoming a school principal. Although females represent nearly 80% of the teachers in the district, the gender balance does differ by school level. Elementary teachers are 89% female, middle school teachers 72%, and high school teachers 63%. Because of the differences in female representation by level, we run the analyses predicting teacher tapping separately by level. Male teachers are significantly more likely to be tapped by their principals in elementary schools and middle schools, but the differences between the tapping of female and male teachers in high schools, where the female representation is not as dominant, are not statistically significant.[5]

Is Tapping Effective at Motivating Teachers to Become School Leaders?

Approximately 9% of the teachers we surveyed report that they are planning to be a principal in the future. Teachers with aspirations for school leadership are more likely to report having been tapped than other teachers (34% vs. 9%). Conditional on having been tapped by a principal, 26% of the teachers report planning to be a principal in the future. Clearly, interpreting these correlations to imply causation is naïve, as tapping is likely endogenous to interest in the principalship. Tapping may motivate teachers to pursue a career in school leadership; however, it is also likely that teachers who have expressed an interest in school leadership are further encouraged by others to pursue that interest, including their principal. Since we hypothesize that tapping increases the likelihood of a teachers' interest in pursuing a career in school leadership, the ideal method for testing this hypothesis would be for principals to tap teachers at random and then to compare the future aspirations for school leadership between those teachers tapped versus those teachers who were not tapped.

Our analyses thus far indicate that principals, unsurprisingly, do not tap teachers at random. For example, as previously discussed, we find that principals are more likely to tap teachers who have taken on school leadership

responsibilities, who feel more prepared to take on school leadership responsibilities, and who have already expressed interest in becoming a school administrator. Thus, it is likely that selection accounts for a significant portion of the association between tapping and interest in the principalship. However, tapping may also causally influence teachers' interest in the principalship. To test empirically the extent to which tapping influences a teacher's interest in the principalship (rather than simply acting as a selection mechanism by identifying those teachers already intending to eventually become principals), we predict teachers' interest in the principalship as a function of having been tapped and a variety of other controls. Choosing the controls for this model is challenging especially because we are using cross-sectional survey data. On one hand, we want to control for teachers' propensity to become a principal that influences tapping. As such, we would want to control for variables such as prior positions and skills. On the other hand, tapping could influence the school leadership and skill development of teachers as well as their interest in the principalship. The data are cross-sectional so we cannot use time variation to distinguish cause and effect. Instead, we use a series of models that introduce controls in a stepwise manner. The initial model with no controls likely overestimates the effect of tapping on interest because it includes the effect of interest on tapping. The final models with all of the controls probably underestimate the effects of tapping on interest because they control for factors that partially result from tapping. Table 5 presents the results.

Predicting teachers' interest in the principalship. We begin by modeling tapping by one's principal as the sole predictor of future interest in the principalship. This model predicts that a teacher who is tapped is 5 times as likely to be interested in becoming a principal as a teacher who is not tapped. Inherent in this simple model is the endogeneity problem we discussed above. Consequently, we begin to disentangle the causal effect of tapping from the selection effect by controlling for salient correlates with tapping including gender, race, teaching experience, school level, school subsidized lunch rate, teaching position, school leadership experience, self-ratings of preparation for school leadership responsibilities, appeal of the principalship, and current job satisfaction. We chose these specific correlates because we found them to be significantly related to teachers' interest in the principalship in the analyses presented above. We test the robustness of the significance of tapping as a predictor of future interest in principalship after controlling for these correlates. As we would expect, the addition of each control lowers the effect size of tapping; however, tapping remains statistically significant across all specifications, indicating that even after accounting for other conditions that are related to interest in becoming a principal, tapping has a significant effect on teachers'

Table 5. Logistic Regression Results, Predicting Teacher Interest in the Principalship

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Tapped for principalship	5.16***	5.61***	5.84***	5.67***	4.02***	3.23***	2.76***
	(18.33)	(18.09)	(18.02)	(17.56)	(13.03)	(10.61)	(8.62)
Controls		Gender	Gender	Gender	Gender	Gender	Gender
		Race	Race	Race	Race	Race	Race
		Tchg exp	Tchg exp	Tchg exp	Tchg exp	Tchg exp	Tchg exp
			Sch level	Sch level	Sch level	Sch level	Sch level
			Lunch rate	Lunch rate	Lunch rate	Lunch rate	Lunch rate
				Position	Position	Position	Position
					Leadership	Leadership	Leadership
						Preparation	Preparation
							Appeal
							Satisfaction

Note. Absolute value of z statistics is in parentheses.
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

interest in the principalship. School-level leadership experience absorbs the most selection effect, as its inclusion reduces the effect of tapping by the greatest amount, whereas school characteristics (such as school level and subsidized lunch rate) account for the least amount of selection, as their inclusion into the model actually increases the size of the odds ratio on tapping.

Current administrators' prior experiences with being tapped. If tapping were unrelated to interest in the principalship, we would not expect a large proportion of current administrators to have been themselves tapped prior to becoming a principal, assuming that tapping patterns have stayed consistent over time. The fact that nearly three quarters of current principals in the district were previously tapped indicates that tapping is related to not only interest in the principalship but also actual realization of this interest. In addition, if tapping did not have an influence on teachers' interest in the principalship, we would expect groups who are not tapped as teachers to also be less likely to have been tapped as principals. Table 6 presents models of whether a current principal was tapped by his or her principal as a function of principal background characteristics, current school level, and self-ratings of effectiveness in Instruction Management, Internal Relations, Organization Management, Administration, and External Relations.

Overall, we find little difference in the probability of having been tapped across principals. Across specifications, gender is not significantly associated with the likelihood of a principal having been tapped. The point estimates on female are positive, indicating that in the sample female principals are more likely to report being tapped, although this may be the result of chance. Given our finding that among teachers males are significantly more likely to be tapped for the principalship than are female teachers, the fact that we do not find a significant difference in the probability of having been tapped by gender among current principals is further evidence that tapping does influence the teacher's movement into administration. Race, years of experience prior to becoming a principal, and current school level are all not significant predictors of having been tapped. We do find that principals who rate themselves as effective in Administration are more likely to have been tapped at a marginally significant level, but we are estimating so many coefficients that this may be the result of chance.

Discussion

The promotion of individuals in an organization to positions of leadership can be classified into at least three general categories: self-selection, selection based on leadership competencies, and selection based on characteristics

Table 6. Logistic Regression Results of Whether the Principal Was Tapped by His or Her Principal

	(1)	(2)	(3)	(4)
Female principal	1.35	1.37	1.35	1.15
	(1.10)	(1.15)	(1.06)	(0.46)
Black principal	1.09	1.07	1.09	1.39
	(0.26)	(0.20)	(0.25)	(0.89)
Hispanic principal	1.26	1.24	1.24	1.33
	(0.74)	(0.67)	(0.67)	(0.86)
Years of experience prior to becoming a principal		0.99	0.99	1.00
		(0.44)	(0.42)	(0.06)
Middle school			1.49	1.97
			(1.07)	(1.59)
High school			0.87	0.81
			(0.35)	(0.54)
Principal effectiveness in instruction				0.97
				(0.18)
Principal effectiveness in internal relations				0.93
				(0.50)
Principal effectiveness in management				0.93
				(0.51)
Principal effectiveness in administration				1.26*
				(1.70)
Principal effectiveness in external relations				0.84
				(1.26)
Observations	305	305	305	289

Note. Absolute value of z statistics is in parentheses.
*Significant at 10%. **Significant at 5%. ***Significant at 1%.

not necessarily related to leadership effectiveness. Succession management systems are developed so that organizations can effectively identify and promote individuals who demonstrate the competencies to be successful leaders rather than relying on individuals to self-select themselves for leadership or for individuals to be selected based on characteristics not related to leadership competency—such as gender and race. Most school districts do not have formal succession management systems for school leadership. However, many principals use tapping as an informal mechanism to identify and encourage promising individuals to pursue careers in school leadership.

This study serves as a case study of tapping in one large, urban school district. We find that teachers are indeed tapped for the principalship. In addition, tapping by one's principal appears to motivate teachers to consider becoming a principal. Using the framework described above, two alternatives to self-selection are selection based on competencies and selection based on characteristics not necessarily related to leadership effectiveness. We find that both these types of selection play a role in the tapping occurring in M-DCPS. On one hand, principals appear to be basing their tapping decisions on leadership capacity, such as teachers' experiences with school-level leadership and teachers' self-ratings of preparation for leadership tasks. In other words, principals are significantly more likely to tap teachers who have the competencies and experiences to be effective school leaders. On the other hand, principals also favor male teachers over female teachers for school leadership as well as teachers of the same ethnicity as themselves, even after controlling for teachers' school-level leadership experiences and self-ratings of preparation to take on school leadership responsibilities. In other words, although principals are generally tapping teachers who are more prepared to become school leaders over those who are less prepared, they also favor teachers of their own race and men over other equally qualified teachers.

These findings are not surprising considering the research on workforce promotions. In the absence of clearly identified leadership competencies, decisions regarding recruitment and promotion tend to be based on other personal attributes—such as race and gender. Typically, current leaders recruit and promote individuals who resemble them in appearance, background, and values to leadership positions (Baron & Pfeffer, 1994; Bergmann, 1986; Kanter, 1993). Homophily is generally seen as negative for both organizations and individuals as it is less likely to identify successful future leaders than selecting on leadership competencies and organizational fit. Again, in this district, we find that tapping reinforces homophily by race but not by gender. That is, principals favor tapping teachers of the same race as themselves, but both male and female principals are more likely to tap male teachers over equally qualified female teachers.

The gender composition of the teacher workforce may incline principals to encourage males to pursue leadership. Research on the promotion patterns of women in male-dominated professions has found a "glass ceiling," a barrier above which qualified women cannot rise because of discrimination (Davidson & Cooper, 1992; Hobbler, Wayne, & Lemmon, 2009; Weyer, 2007). In a study of the promotion patterns of men in female-dominated professions, Williams (1992) did not find the same to be true. Instead, men in female-dominated fields are likely to advance to positions of authority more

rapidly than similarly qualified women on what she coined a "glass escalator." Specifically, Williams observed that men tend to be steered away from the female-dominated segments of the profession and pushed upward into positions of authority. Cognard-Black (2004) applied the theory to elementary school teachers and found that men are significantly more likely to advance into school administrative positions. The mechanism through which the glass escalator operates may be through differential support for men and women. Being a member of a numerical minority in one's occupation has been found to be an advantage for men and a disadvantage for women (Taylor, 2010). Taylor (2010) found that in mixed-sex occupations, women report higher levels of workplace support than men; in male-dominated occupations, women perceive relatively low levels of support. In contrast, men perceive relatively high levels of workplace support in female-dominated occupations. Our finding that principals favor male teachers for leadership comports with glass escalator theory. Consistent with the glass escalator theory, we find the preference for tapping men to be strongest in the elementary schools and middle schools, where female teacher representation is highest.

Our analysis found little variation among principals in likelihood of tapping; however, we did find principals skilled in Organization Management to be more likely to tap teachers for the principalship. These management skills reflect the principal's effectiveness at overseeing the functioning of the school and directing the school in the direction of its medium- and long-term goals. Grissom and Loeb (2010) found effective Organization Management skills predict a number of positive school outcomes. Principals effective at management are able to look beyond the day-to-day needs of the school and position themselves to pursue the school's long-term goals, of which identifying and supporting potential principals may be one (Grissom & Loeb, 2010).

Our findings have implications for this school district as well as similar districts that rely on informal tapping to encourage teachers to pursue careers in school leadership. Unlike formal succession management systems based on clear leadership competencies, tapping is an informal mechanism that appears to be based on leadership competencies as well as other personal characteristics. Even though tapping is an informal mechanism and outside the official hiring practices of districts such as this one, it appears to be pervasive enough to have implications for personnel law that prohibits employers from discriminatory hiring processes.

Furthermore, given that tapping does appear to have a significant impact on teachers' interest in school leadership as well as their probability of actually becoming principals, districts might benefit from encouraging that tapping be based more on teachers' leadership competencies than personal traits

such as race or gender. One way to do so would be for districts to explicitly define the competencies that make for an effective school leader as well as how those competencies can be identified early in teachers. In contrast, there is no research to our knowledge that demonstrates that principals of a specific gender or ethnicity are more effective than others. School districts would benefit from explicitly training principals to tap teachers with attributes that research has shown to be related to effective school leadership rather than tapping teachers based on gender and ethnicity.

Sharing the results of this study with principals could positively affect the recruitment of teachers to become principals in a district. First, as principals recognize the efficacy of their encouragement to motivate teachers to become principals in the future, they may become more motivated to tap. And second, they may become more thoughtful and disciplined about whom they tap. In other words, principals are not likely to be intentionally withholding encouragement from female teachers or teachers who are of a different ethnicity. They are more likely to be approaching teachers with whom they have regular contact or easy rapport. Principals' words of encouragement—both formal and informal—have a significant impact on the future of school leadership in the district. A principal's recognition of this charge could alter the basis on which he or she encourages teachers to become principals.

Our findings also have implications for future research. As previously discussed, sponsored mobility is a complex process—one that is multidirectional and could involve multiple concurrent or consecutive sponsorship actions. This study examines the effects of one sponsorship action (i.e., tapping), controlling for a teacher's prior interest in school leadership. Future studies might examine the multidirectional aspect of sponsored mobility, specifically focusing on the effects a teacher's actions can have on getting tapped. This study suggests that teachers with school-level leadership experiences are more likely to be tapped. There may be other ways in which teachers could signal to their principals that they would make good school administrators and influence whether they are tapped. Additional studies might also examine the effects of a teacher being tapped multiple times by multiple actors. It may be that multiple consecutive or concurrent tappings may have multiplicative effects on a teacher's interest in the principalship, and the effects may vary depending on who is doing the tapping and how often they are encouraging the teacher. Finally, further studies might also examine the influence of tapping on a teacher's career decisions. This study measures the influence of tapping on teachers' expressed interest in becoming a principal. Although interest is a prerequisite for a teacher to become a principal, further study on which attributes of tapping, teacher characteristics, and principal

characteristics predict who actually becomes a principal, and specifically an effective principal, will shed greater light on the influence of tapping. This study lays the groundwork for additional research exploring the multiple facets of the informal recruitment of teachers to become principals.

Declaration of Conflicting Interests

Funding

Notes

1. Since 1999, the state has had its own accountability program independent of the accountability standards imposed by the federal No Child Left Behind Act. As part of this program, schools are assigned grades (on an academic A–F scale) based on student performance on state standardized tests. The grade is based, among other factors, on the percentage of students at a given school who meet a particular threshold on exams including reading and math, the percentage of students who have demonstrated improvement on these exams, and the percentage of students who fell in the lowest quartile, statewide, in the previous year who have demonstrated improvement.
2. Results are available on request.
3. Results are available on request.
4. Results are available on request.
5. Results are available on request.

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Bios

Jeannie Myung is a doctoral candidate at the Stanford University School of Education and a research associate at the Carnegie Foundation for the Advancement of Teaching. Her research interests focus on the recruitment, development and retention of teachers and school leaders.

Susanna Loeb is a professor of education at Stanford University, a codirector of Policy Analysis for California Education, and the director of the Center for Education Policy Analysis at Stanford University. Much of her research addresses teacher policy, looking at how teachers' preferences affect the distribution of teaching quality across schools, how preservice course work requirements affect the quality of teacher candidates, and how reforms affect teachers' career decisions. Her related work on school leadership examines the career histories of principals, as well as their day-to-day behaviors and skills associated with student learning.

Eileen Horng is an education researcher. Her research interests focus on the career paths of principals and teachers, district policies that affect the distribution of human resources across schools, and the impact of educator characteristics and mobility patterns on student outcomes.