

# Using Teacher Effectiveness Data for Information Rich Hiring

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## Structured Abstract

### ***Purpose***

New teacher effectiveness measures have the potential to influence how principals hire teachers as they provide new and richer information about candidates to a traditionally information-poor process. This paper examines how the hiring process is changing as a result of teacher evaluation reforms.

### ***Research Methods***

Data come from interviews with over 100 central office personnel and 76 principals in six urban school districts and two charter management organizations. These sites were systematically sampled based on the amount of time and resources devoted to creating data systems and implementing processes that allow principals access to teacher effectiveness data. In addition to the fieldwork, we also surveyed all principals in six of the eight systems. A total of 795 principals responded to the survey, with an overall response rate of 85%.

### ***Findings***

The findings suggest that while teacher effectiveness data can be used to inform hiring decisions there is variation in how and the extent to which principals use these measures in hiring. This variation is explained by central office practices as they mediated how principals approached teacher effectiveness data in the hiring process, as well as individual principal characteristics such as principal knowledge and skills, perceived validity of data, and social capital.

### ***Implications for Research and Practice***

Our results demonstrate ways in which school systems and principals are incorporating

teacher effectiveness data into the hiring process. Both principal preparation programs and school systems should focus on ensuring principals have the skills and resources to use data for human capital decisions.

Keywords: Hiring; Data-driven decision making; Teacher Effectiveness; Teacher Labor Market; Teacher Quality

## Introduction

High quality teachers are a key ingredient for school effectiveness, and effective hiring practices are an important avenue for ensuring schools are staffed with high quality teachers. For this reason, recent research has focused on how principals make hiring decisions (Harris, Rutledge, Ingle, & Thompson, 2010; Levin & Quinn, 2003; Liu, Rosenstein, Swan, & Khalil, 2008; Rockoff, Jacob, Kane, & Staiger, 2011). The recognition that teachers are the most important school factor in explaining student learning gains has led to interest in whether principals can identify effective teachers in the hiring process and the strategic management of human capital (Odden & Kelley, 2008; Rockoff et al., 2011; Rutledge, Harris, Thompson, & Ingle, 2008). Schools that are more successful at attracting and hiring effective teachers have steeper trajectories of school-wide achievement growth (Loeb, Kalogrides, & Bêteille, 2012). Principals who spend more time on and are more effective at organizational management tasks—including hiring teachers—see greater gains in student achievement and more satisfied teachers (Grissom & Loeb, 2011; Horng, Klasik, & Loeb, 2010). This focus on helping principals identify effective teachers is perhaps best exemplified in recent efforts to develop new measures of teacher effectiveness—such as teacher value-added or growth scores, evidence-based observations, and teacher evaluation systems (Measures of Effective Teaching Project, 2013). These new measures have the potential to influence how and why principals hire teachers as they provide new and richer information about candidates to a traditionally information-poor process (Liu & Johnson, 2006).

This paper uses data from eight school systems that are early adopters of teacher effectiveness measures and enhanced data systems to examine the hiring process as a result of

recent reforms in teacher evaluation and effectiveness data. This paper addresses the following research questions:

1. How do principals use new teacher effectiveness data in hiring teachers for their school?
2. What supports and constraints do principals face in using teacher effectiveness data in hiring decisions?
3. How are district/CMO central offices organizing themselves to support more information rich hiring?

The paper begins with outlining what we know about how principals make teacher hiring decisions and the potential role of the central office in mediating how new effectiveness measures may influence teacher hiring. After describing the data and methods, we present the main findings that there is variation in how and the extent to which principals use these measures in hiring in three sections. First, we describe the central office practices that mediated how principals approached teacher effectiveness data in the hiring process and how principal use of data varied by the structures put in place by the central office. Second, we describe the patterns of principal data use of teacher effectiveness measures in hiring by presenting three ideal types of high, moderate, and low data-use principals. Third, we describe individual sources of variation among principals' data use, such as principal knowledge and skills, perceived validity of data, and amount of social capital. Throughout this paper, we use the term "teacher effectiveness data" to include multiple measures of teacher performance, including value-added or other growth scores, teacher observation ratings using an evidence-based rubric, and student surveys. All of the school systems in this study have teacher evaluation systems that include multiple measures.

### ***What We Know About How Principals Make Hiring Decisions***

Despite the recent attention to the strategic management of human capital, research on how principals make hiring decisions is still accumulating. Previous research suggests that principals focus heavily on personality and behaviors when selecting teachers and want teachers

who are caring, enthusiastic, motivated, honest, and emotionally stable (Cain-Caston, 1999; Cannata & Engel, 2012; Dunton, 2001; Engel, 2012; Harris et al., 2010; Place & Kowalski, 1993). Further, districts rate teacher applicants' human relations skills more important than their teaching skills (Ralph, Kesten, Lang, & Smith, 1998). Indeed, even when districts focus on teaching skills, they consider the ability to facilitate relationships more important than instructional planning and strategies (Ralph et al., 1998).

There is not much evidence on the importance of more direct indicators of teaching performance, probably because these types of data have been greatly limited in the past. There is some evidence on principal preferences for particular teacher characteristics that are tied to teacher performance, even if they are not a direct measure of effectiveness. For example, principals appear to highly value evaluations from applicants' prior teaching experiences (including student teaching), knowledge of teaching strategies, and certification path (Abernathy, Forsyth, & Mitchell, 2001; Boyd, Lankford, Loeb, Ronfeldt, & Wyckoff, 2010; Cain-Caston, 1999; Dunton, 2001; Papa & Baxter, 2008). There is also emerging evidence that principals prefer teachers who demonstrate evidence of improving student achievement (Boyd et al., 2010; Cannata & Engel, 2012). However, teacher qualifications such as certification and academic credentials appear less important than personal characteristics (Harris et al., 2010; Ralph et al., 1998). For example, principals do not prefer teachers from highly competitive colleges (Ballou, 1996; Boyd et al., 2010), possibly because they assume that all college graduates meet a minimum threshold of intelligence (Harris et al., 2010). Although the relatively weaker emphasis on teacher performance indicators may seem troubling, the complex nature of teaching focuses principals on identifying candidates that have a mix of personal and professional characteristics that fit well into the existing context of their school (Harris et al., 2010; Papa & Baxter, 2008).

Although there is less evidence regarding the information sources or tools that principals use to make hiring decisions, evidence suggests it is a rushed and information-poor process, giving principals little information on which to base their decisions (Levin & Quinn, 2003; Liu & Johnson, 2006). For example, Liu and Johnson (2006) report that some new teachers were offered a job immediately after interviewing with the principal when the principal had done only a paper review of their credentials. Further, this study found that while nearly all candidates submitted a resume and references, less than a quarter of candidates had to submit more direct evidence of teacher effectiveness, such as standardized test scores, a lesson plan, or a sample lesson. Other studies support this finding, suggesting that most districts spend less than two hours with applicants before hiring them (Strauss, Bowes, Marks, & Plesko, 2000).

The information-poor nature of the hiring process is likely due to constraints faced by principals when hiring teachers. Many applicants would be brand new teachers and thus have not accumulated any evidence of their teaching performance. Demonstration lessons or videos could help to fill this gap, although they come with substantial costs and other barriers (Rutledge et al., 2008). With limited tools available to principals, they must rely on qualities that are easily assessed in an interview or paper credentials (Delli & Vera, 2003; Engel, 2012; Liu & Johnson, 2006; Rutledge et al., 2008). Consequently, while principals may want to assess teacher effectiveness directly, it is hard to assess knowledge or pedagogical skills in an interview (Engel, 2012). Commercial teacher screening instruments such as the TeacherInsight and Star Teacher screener, can provide inexpensive tools to identify teachers likely to be successful (Haberman & Post, 1998; Rutledge et al., 2008). However, there is little independent empirical research on how well these tools predict teacher effectiveness, with a recent study indicating a screening tool is only weakly related to performance (Rockoff et al., 2011).

Another key constraint faced by principals in hiring is the context of their school in the local teacher labor market. DeArmond, Gross, and Goldhaber (2010) found that hiring outcomes were more closely related to location, student poverty, and financial resources available to the school than how actively the principal recruited teachers or implemented strong hiring practices. With substantial research indicating that teachers care about the location and student population served by the school, principal hiring decisions are constrained by teachers' decisions about where they will apply (Boyd, Lankford, Loeb, & Wyckoff, 2005; Cannata, 2010; Engel, Jacob, & Curran, 2013). Other constraints faced by principals include processes established by the district around internal transfers, hiring windows, late vacancy notifications, and budgetary cuts (Levin, Mulhern, & Schunck, 2005; Levin & Quinn, 2003; Liu et al., 2008).

Just as much research on implementation of reform focuses on schools and not districts, the literature on teacher hiring also prioritizes practices at the school level. Yet, responsibility for decision-making in hiring traditionally shared by individuals at the district and school levels (Engel & Cannata, 2015; Liu et al., 2008). Many human capital decisions—such as recruitment and basic screening—are centralized by the district and often driven by collective bargaining agreements (Cohen-Vogel & Osborne-Lampkin, 2007; Liu & Johnson, 2006; Strauss et al., 2000; Strunk & Grissom, 2010). Indeed, principals perceive the excessive centralization of the hiring process and bureaucratic requirements—such as needing to interview all candidates who fall into a particular eligibility pool or rules around seniority and internal transfers—as significant barriers to their hiring (Donaldson, 2013). Teacher hiring is thus an activity that has many functions centralized by the district office, although the degree of centralization can vary by district (Donaldson, 2013; Liu & Johnson, 2006) and there is a trend toward greater decentralization and principal autonomy in hiring, particularly for urban districts and those with



collective bargaining agreements (Engel, Cannata, & Curran, 2015). This centralization in teacher hiring has important implications for how principals hire teachers as the organizational and situational context of the school—including district hiring procedures—were relatively large predictors of how principals made hiring decisions (Papa & Baxter, 2008).

### ***Schools Are Becoming Increasingly Data-Rich***

That the teacher hiring process is information-poor stands in notable contrast to the increasingly data-rich environments of schools (Anderson, Leithwood, & Strauss, 2010; Cohen-Vogel & Harrison, 2013). With accountability rewards and/or sanctions tied to student performance on state assessments, educators have incentives to engage in data-driven decision-making. Indeed, principals are charged with creating a “culture of data use” in which educators value data and can explain decisions using data (Halverson, Grigg, Prichett, & Thomas, 2007b; Sutherland, 2004). Many instructional decisions—such as which instructional materials to purchase, which students to assign to various instructional interventions, what concepts teachers need to spend more time on, etc.—are increasingly informed by various types of data (Diamond, Randolph, & Spillane, 2004; Guskey, 2003; Halverson, Grigg, Prichett, & Thomas, 2007a; Lyons & Algozzine, 2006).

There is also emerging evidence that personnel decisions are increasingly informed by data. For example, principals report using test score information to assign students to particular teachers, and evidence suggests evaluation data are also used to decide which teachers to dismiss or promote (Master, 2014; Osborne-Lampkin & Cohen-Vogel, 2014). Principals are beginning to use student test score information to hire teachers (Cannata & Engel, 2012; Cohen-Vogel, 2011). For example, principals used their own school’s performance to decide what type of teacher to hire, such as a teacher who can help improve math scores or scores of low achieving students

(Cohen-Vogel, 2011). This study also found that half of principals were either asking experienced teaching applicants to provide data from their past students or asked about student results when checking references (Cohen-Vogel, 2011). Further, the type of data available has changed significantly. With federal policy incentivizing the creation of comprehensive teacher evaluation systems, the nature of data that is available for hiring decisions has become more teacher-focused rather than student-focused and more detailed with observation scores, measures of teacher impact on student growth, and other teacher-level indicators.

The existing literature, then, suggests that teacher hiring is generally an information-poor process, with little evidence that principals use direct evidence on teacher performance, even as schools in general become more data-rich and new measures of teacher effectiveness are developed. It is within this context of schools as increasingly data-rich environments and the greater availability of more specific measures of teacher effectiveness that this study is situated. By examining how principals use new teacher effectiveness measures in hiring, this paper contributes to the research base on the extent to which principals use evidence in teacher hiring and the central office and individual characteristics that shape hiring practices.

### **Conceptual Framework**

#### ***Social Construction and Sensemaking***

The related traditions of social construction and sensemaking offer a framework for considering individual and system level variation in whether and how principals use teacher effectiveness data in the hiring process. Focusing first on the individual characteristics, principals bring personal and professional experiences and expertise, which mediate their actions. Social constructionists emphasize that the social world is the byproduct of social interaction (Searle, 1995). Reality emerges through shared interactions and negotiated definitions (Berger & Luckmann, 1966), and this reality is often mediated through social institutions (Gamson,

Croteau, Hoynes, & Sasson, 1992; Gamson & Modigliani, 1989; Searle, 1995). Merton (1948, 1995) emphasized that people's interpretations of situations are shaped by experience *and* such beliefs shape actions. Furthermore, an individual's identity, both in how they see themselves and the world around them, is also a product of the social world. Individuals adjust their behaviors according to institutional expectations and rules placed upon them, as well as the responses they received from others (Goffman, 1961). Factors such as how principals activate social networks, their perceived validity of data and the appropriate use for these data are mediated by these organizational and policy environments.

Work on *sensemaking* builds on these traditions, arguing that the meaning individuals attribute to actions, messages, and their environments is negotiated according to experiences, attributions of motivation, perceived legitimacy of requests made upon them, and so forth. For example, scholars have applied the sensemaking framework to teachers in order to understand their willingness to implement and adhere to programs with fidelity (Coburn, 2006). Teachers are social actors constantly interpreting and reinterpreting their environment and what they are asked to do (Coburn, 2001). They engage in a process whereby they interpret the merits of the program through different lenses colored by aspects such as past experiences and their notions of the meaning of good teaching (Coburn, 2001, 2006; Allen & Penuel, 2015; Coburn, 2005). Importantly, sensemaking is central to the process by which individuals try to organize the unknown (Waterman, 1992). For example, the availability of new forms of data, some of which is in the form of complicated value-added scores, asks principals to work in new and unfamiliar ways. Principals must balance professional judgment, unclear and at times conflicting data, or even a lack of data in the case of new teachers to make hiring decisions. This is exacerbated by the traditionally information-poor nature of hiring.

Like identity formation, sensemaking processes are also influenced by organizational environments, which can help or hinder principals' data use. Faced with uncertainty, principals' actions can both influence and be influenced by their organizational milieu (Weick, 1995). In the case of principals' data use, one influential factor which we examine herein is the district environment in which principals operate, and whether districts influence whether and how principals use measures of teacher effectiveness in the hiring process. This is especially important as research most commonly focuses on schools as the locus of change; less attention has been paid to district-level influences (Honig & Venkateswaran, 2012a; Honig, 2012a; Rorrer, Skrla, & Scheurich, 2008). However, just as principals operate within the organizational confines of the school environment, they also are influenced by the district context. Districts can help disentangle the unknown, guide the sensemaking process, and the construction of principals' understanding of the world around them. This in turn can influence principals' actions and help them learn to disentangle the confusing web of information newly available to them (Coburn & Talbert, 2006; J. P. Spillane & Burch, 2006; James P. Spillane et al., 2002).

The lack of attention afforded to the mediating roles of districts likely obscures factors influencing the implementation of policies and programs. For instance, when districts lack a coherent vision of what reform should entail, they often have difficulty bringing such efforts to scale across their schools (Corcoran, Fuhrman, & Belcher, 2001). In a review of the literature on the district role in reform efforts, Rorrer et. al (2008) identified four overarching functions: (1) the provision of instructional leadership, (2) reorientation of the organization to align with desired changes, (3) the creation of overall policy coherence, and (4) maintaining a focus on equity. Specific examples demonstrating the influence of district context can be found in efforts such as the development of small autonomous schools (Honig, 2009), the implementation of

professional learning communities (Honig & Rainey, 2014), whole-school reform efforts (Berends, Bodilly, & Kirby, 2002), as well as school restructuring efforts (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010).

Like in other efforts to foster changes in schools, Honig and Venkateswaren (2012a) found an important relationship between districts and principal data use. Based on an extensive review of research on the influence districts have with regard to what they term “evidence-use processes,” the authors argue that focusing only on school-level (i.e., principal level) data use excludes an important component when trying to understand data-driven decision making. For instance, districts can set routines and expectations around data use (Grissom et al., 2015; Wohlstetter, Datnow, & Park, 2008), and carve out time for leaders to learn to make sense of and apply data (Halverson et al., 2007a; Park & Datnow, 2009).

Honig and Venkateswaren (2012a) categorize the influence of districts in school-based evidence use into four overarching categories. First, districts can be conduits in the flow of information to schools. Second, they facilitate sensemaking processes surrounding data use amongst various school stakeholders. Third, they create and communicate expectations, processes and procedures around data use, and, fourth, they are instrumental in providing necessary professional development for the use of such data. Honig and Venkateswaren (2012a) conclude with a call for future research to account for and try to disentangle the complexities involved in this interplay between school and district level contexts in the use of data, noting that different decisions might involve different logics and procedures. This paper answers this call by situating patterns of individual level data use in the hiring process within the context of school district factors that shape principal data use.

This paper contributes to this research by exploring how central office expectations for

hiring mediate how principals make sense of new teacher effectiveness data and use them in hiring new teachers. In addition, it highlights individual-level mediators that influence variability in data use, calling attention to the importance of skills and expertise, past experiences, perceived validity, and social interaction, all of which influence principals' actions as they actively make meaning of the new data sources and reconstruct their hiring practices to incorporate new information available to them.

### **Data and Methods**

As part of a larger project examining principal data use for human capital decision making, we conducted semi-structured interviews of central office personnel and principals in six urban school districts and two charter management organizations (CMOs) during the 2012-2013 school year. The systems chosen had all been implementing a new system for collecting multiple measures of teacher effectiveness for at least one year at the time data collection began, establishing them as early adopters of comprehensive teacher evaluation systems. These new comprehensive teacher evaluation systems include teacher observations, value-added or similar growth measures, and student perception surveys. Some of the systems also had peer surveys from other teachers, parent surveys, and other measures of student learning in addition to a value-added or growth measure. The systems varied in how these components were weighted, but the observation measures had weights from 25% to 50% of the total evaluation composite rating. All of the systems devoted time and resources to implementing their evaluation system and developing data systems that incorporate these measures of teacher effectiveness. The systems varied in the length of time they had been engaged in these efforts and whether they received substantial philanthropic or other external support, such as Teacher Incentive Funds. The eight systems are located in six states, four of which received Race to the Top funds. Principals across all systems reported being held accountable for the performance of their

schools on state assessments. The systems varied in size; the two CMOs both served around 5,000 students and the districts ranged from 75,000 to 200,000 students.

Participating school systems had a variety of collective bargaining arrangements, although they were not selected on that basis. Three of the school districts were in states where collective bargaining is illegal. These districts did have teacher associations that were affiliated with unions, but they did not have collective bargaining power. Two districts were in states where collective bargaining was permitted and one district was in a state where collective bargaining was a right guaranteed by the state constitution. All three of these districts had collective bargaining agreements. Among the two CMOs, one had a collective bargaining agreement with a teacher union and one did not. Thus, across the eight systems, there was variation in how strong the union presence was felt.

The collection of interview data occurred in two stages. First, we conducted semi-structured interviews with central office personnel in each system. Key system personnel, including the superintendent/president, director of human resources, director of research and accountability, and director of curriculum and/or professional development, were interviewed to examine the types of teacher quality and effectiveness data available to principals, as well as system-level expectations for data utilization for teacher human capital decisions. Other system personnel identified by individuals within each district/CMO were also interviewed. In total, we performed over 100 interviews with central office staff across the eight systems. Interview guides asked about the district culture around data use, supports to principals for using data, and the formats or tools by which data were accessed. In addition, questions focused on specific human capital decisions, including hiring, evaluation, teacher support and professional development, compensation, assignment, teacher leadership, and contract renewal/dismissal. Due

to the length of the interview guide and different roles held by central office personnel, not all participants were asked about all human capital areas. All participants were asked about district culture and support for data use. We then used their job description and self-identified responsibilities for specific human capital areas to ask about each decision area.

In the second stage, schools within each system were stratified by level (e.g., elementary, middle, high) and achievement (e.g., low, high), with four elementary, three middle, and three high school principals randomly selected for interview from within achievement stratum.\*

Interviews with principals were semi-structured and reflected the insights gained from the central office interviews. A total of 76 principal interviews were conducted across the eight systems.

Principals were asked about all human capital decisions and questions were focused on how they used data, who else was involved in their use of data, the driving factors behind how they used data, the barriers they encountered in using data for human capital decisions, the training and support received for using data, timing of data availability, the role of the central office in their data use, and perceptions of what distinguished the most and least effective users of teacher effectiveness data.

All interviews were audio recorded and transcribed verbatim. The analysis protocol, which stemmed from the original research proposal, guided development of an initial coding scheme.† All data were coded by human capital decision and the type of data used. The process, however, was also iterative in nature (Corbin & Strauss, 2008; Le Compte & Schensul, 1999); members of the research team coded a sample of central office and principal interviews, and then revised the coding scheme to address questions and concerns that emerged. Thematic coding led to the emergence of patterns within and across districts. For example themes such as barriers to

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\* In the case of scheduling conflicts and/or special requests from the district, principals were randomly selected for replacement. If principals were not able to be interviewed on site, phone interviews were scheduled.

† Transcriptions were uploaded into Dedoose for coding.



and facilitators of data use, and beliefs about the validity and appropriateness of data for particular decisions emerged as important topics. We provide quotes from participants in order to provide rich descriptions of themes related to teacher hiring that emerged across all systems to varying degrees. Researchers compared their coding to ensure consistency in application of codes. Throughout the coding process, researchers wrote in-depth memos to capture nuance as well as ideas that were not always captured in the coding scheme. These memos were considered alongside the coded data during synthesis of findings (Corbin & Strauss, 2008).

To explore how central office practices around hiring influence how principals use data, we used the interview data to categorize the systems into one of two categories: “high structure” and “low structure” in terms of the practices established which structured the hiring process. First, we wrote comprehensive analyses for each system that summarized how principals used data for each human capital area and the supports and barriers present in each system. Second, using these reports, we summarized what each system did to structure the hiring process and incorporate teacher effectiveness data into hiring. Working inductively from the rich descriptions in the comprehensive reports, the central office practices clustered into three domain areas: recruitment/screening, expectations around how principals hire, and accountability for hiring. When reviewing the system summaries outlined in those three domain areas, there was a clear pattern of systems that were actively creating structures for incorporating teacher effectiveness data into hiring across each of those areas and those that were not. Four of the six systems that participated in the survey engaged in significant screening processes, provided strong messages to principals about how they should hire teachers, and held principals accountable for hiring decisions. They were classified as “high structure” systems. The other two systems were categorized as “low structure” systems. This categorical variable is used to explore differences in

patterns of principal data use in hiring across different types of school systems. We note that this categorization of school systems into “high structure” and “low structure” does not necessarily reflect the degree of overall centralization in the hiring process. For example, one of the systems worked with principals to post school-specific vacancies and teachers were not offered jobs until hired by a particular school. Thus, from the teacher’s point of view, hiring was highly decentralized as they applied to a particular school and were offered a position by that school (Liu & Johnson, 2006). Yet, this system was considered “high structure” because applications were rated according a rubric aligned with the teacher evaluation system before principals interviewed them, principals were given clear expectations on how to incorporate teacher effectiveness data into hiring, and principals reported being held accountable for their hiring decisions. Likewise, one of the “low structure” systems was categorized as such because they had few practices that encouraged principals to use data in hiring, yet they still had centralized rules around internal transfers and hiring windows.

In addition to the fieldwork, we also conducted principal surveys in six of the eight systems. Online surveys were distributed to all principals in the six systems by email between September and November 2013. Principal emails were obtained from systems’ central offices. Email reminders to complete the survey were sent once per week to non-respondents for three to four weeks after the initial survey invitation was sent. Hard copies of the survey were mailed to non-respondents approximately one to two weeks after they received their last email reminder. A total of 795 principals responded to the survey, with an overall response rate of 85%. Response rates by system ranged from 73% to 92%. Note that the systems varied in size from 19 schools to 268 schools. The survey data presented here are summary statistics of the percentage of principals who used various forms of data for hiring. The categorization of school systems into

high structure and low structure systems from the qualitative data was added to the survey data and used to explore the relationship between district processes related to using teacher effectiveness in hiring and principal use of data. Specifically, chi-square tests were used to test for differences between the two categories of school systems.

## **Findings**

### ***What is the Central Office Role in Hiring?***

Overall, our findings suggest that while teacher effectiveness data can be used to inform hiring decisions there is variation in how and the extent to which principals use these measures in hiring. This variation is partly explained by central office practices as they mediated how principals approached teacher effectiveness data in the hiring process, as well as individual principal characteristics. This section uses the interview data to describe the system-wide practices related to teacher hiring that central offices put in place. The structures and expectations that school systems put in place within three domains (or, do not put in place) help to explain how principals' use of data varied by school system. These domains include: how candidates are recruited and screened, expectations for how principals should make hiring decisions, and processes for holding principals accountable for hiring or analyzing hiring decisions. Both the social constructionist and sensemaking frameworks emphasize the importance of institutional contexts and organizational expectations as mediators of individuals' actions (Gamson et al., 1992; Gamson & Modigliani, 1989; Goffman, 1961; Honig & Venkateswaran, 2012a; Rorrer et al., 2008). This first section of the findings thus illustrates first the variation in district contexts and then second, through the survey data demonstrates how in fact these institutional arrangements are associated with whether and how principals' used data in their hiring processes.

As illustrated below, these practices are related to the overall degree of centralization in

hiring, but we saw important distinctions between overall centralization in hiring and central office practices that led to greater use of teacher effectiveness data by principals in their teacher hiring decisions. While none of the systems in this study completely centralized hiring, discussions of centralization in the hiring literature typically focus on how much authority principals have hiring; in completely centralized districts, teachers are assigned to schools with little to no principal input. The practices described here that central offices used to structure principal hiring decisions did not remove their authority over hiring, even as they shaped how those decisions were made.

### *Recruiting and Screening Candidates*

The eight school systems that were part of this study varied in how they supported schools in recruiting and screening potential teachers. Although recruiting and screening are different processes, they work together to define the applicant pool. For example, one central office hiring official noted, “We go out there and recruit during job fairs. We do the job postings for them. So in essence, we create a pool of candidates for them. They take over at that time for the interview and selection process, and then they come back to us for the onboarding process” (District H). As reflected in this quote, this system did not take an active role in recruiting teachers other than posting vacancies in a centralized location and representing the system at job fairs. Nor did they do much screening of applicants beyond a criminal background check and basic credential verification. On the other end of the spectrum, one system actively managed its recruitment pipeline and had identified where they were most likely to find teachers who would be effective in their system. For example, one central office hiring official described a more active approach to developing their pipeline of teachers:

Are we getting a more effective, higher quality teacher from those pipeline programs? And then are we strategically placing them? So, as we look at teacher’s [evaluation

composite] score and that [evaluation composite] score, again, when you go back to the definition you have the observation. You then have your stakeholder input, using your [student survey]. In the past we did content knowledge, and then you have your [value-added] and your student achievement. So, in using that defined definition which is in the [evaluation composite], what are our partnerships and pipelines looking like, and how do they distribute along when we look at our [evaluation composite] one through five teachers? And where do we need, you know, what subject areas do they teach? How many years have they been working in the district? Where do we need our pipelines to help and to support us because it may be a high-need area or a shortage area? [District B]

More common was for systems to play some role in recruiting candidates, even if they were not as systematic about their recruitment processes as this district was.

There was also substantial variation in how central offices screened candidates before hiring moved to the school-site. While two systems (systems D and H) conducted very little screening beyond asking for credentials, other systems had extensive screening at the central office level to assess qualifications and fit with the system before candidates could be interviewed at the school. For example, one system established a process of five selection stages—four of which occurred by central office staff. These stages include a commercial screening instrument, credential check, a phone interview and lesson plan that assessed competencies on their teacher evaluation, and another phone interview that assessed their mindset to work in their urban setting. Only those candidates who successfully passed each stage could be interviewed by a principal; in a recent year, about 20% of all applicants made it to the final stage. As a hiring official noted, “We have a very rigorous hiring process. Candidates are vetted at several stages. Once they pass the vetting from the home office...the names are given to the school sites, and each school site forms hiring committees” [District G]. Another district developed a rubric aligned with their teacher evaluation system; all candidates were “pre-screened” according to this rubric using traditional application materials. All candidates who passed the pre-screen were then rated using a phone interview. Only candidates who did well on

these two processes made it into the applicant pool seen by principals, where principals access both the candidates' application materials and the 1-5 rating assessed by the central office. One hiring official noted,

We've aligned our selection model with teacher evaluation, the teacher effectiveness measure, and we have, when you apply to the district you have to get through a screen, a prescreen as we call it. So you basically will submit your application, your resume, your references, all of those things, and then we screen that on a scale of 1 to 5 based on a rubric that we've created that is aligned with the [evaluation instrument]. After that, you get through that, right now we're like for instance, right now at this moment for this year about 20% of our applicants that have completed an application get stopped at the prescreen. After that it goes to the phone screen. The phone screen is about a 30-minute conversation with candidates to talk, to dive in more about their application and also ask them some scenario questions and also questions around their experience. We've found that the most important or the best indicator of teacher effectiveness is past performance, and so we will drill down on that, and we've sucked out about 10% from the phone screen. Once you get by the prescreen, the phone screen doesn't cut out as many people. They get a score on both of those. It's put together and it's on a scale of 1 to 5, and then into our applicant [pool]. Well, then they have to get their compliance documents in, but then they're in our applicant pool. [District B]

Other systems reported being in the initial stages of developing some type of centralized screening process.

Notably, even in the systems with more extensive central office screening processes, teacher effectiveness data did not play a direct role. Although the human resource personnel quoted above also noted that inexperienced teachers couldn't achieve the highest score on their applicant rating system, all of the systems designed screening procedures that were flexible enough to accommodate brand new teachers who did not yet have data on their effectiveness. Still, the systems that were more active in designing centralized screening procedures were influenced by their teacher evaluation system. For example, central office screening rubrics were aligned with indicators from their teacher evaluation system—which is noteworthy given the role of using the teacher evaluation system to structure the demonstration lesson as noted below.

*Expectations for Principals in Teacher Hiring*

Another key domain in which central offices structured the variation we saw in principals' use of data in teacher hiring was the presence of central office expectations for principals. Systems varied in the extent to which the central office provided clear and consistent messages to principals about how they should make hiring decisions. Some systems provided very little guidance to principals regarding how hiring decisions should be made, resulting in substantial variation in how principals within that system made decisions—in terms of both the processes used and criteria considered. For example, when asked about whether the district provided any guidance on how to hire teachers, one principal responded, “It’s pretty much up to my discretion.” (District D). A member of the central office from that system confirmed, “in terms of the systemic data...schools use whatever they want...we don’t centrally say please think about test scores, or please look at your trends over the past four years in terms of new hires” (District D). Yet other systems had a very structured process, with a common set of interview questions and a rubric for a demonstration lesson—all tied to the indicators on the evaluation system—that principals and their school hiring committees were expected to use. For example, one central office personnel member noted that they put together a “toolkit that walks the principal through the entire process. The most exciting part of it includes examples of a very structured interview process...all the questions are competency-based and linked to the [evaluation system]” (District E).

Another way which some systems set expectations for how principals should use effectiveness data in hiring was by creating a culture of data use and emphasis on teacher effectiveness data. For example, District F did not give principals any explicit directions on how to make hiring decisions, but through the system-wide culture of valuing teacher effectiveness measures—particularly measures of student growth—principals began considering these data

when hiring transfer applicants. For example, one principal in this system said, “For teacher hiring we do have the [value-added] data that we can pull on teachers or that are provided to us, or scores on their previous observations...so I do look at that information” (District F). A principal in another system said, “there are some people that want to transfer in...from a sister school... I want to see their former evaluations.... I want to see the surveys. I want to see the peer surveys. And the thing about [our data system] is that you can go on and see it.” (District G).

On the other hand, some systems gave principals little guidance or support in how they should hire teachers in the applicant pool. Systems often linked this lack of guidance to honoring principal autonomy. For example, when asked whether the district had particular expectations for what principals should be looking for when hiring teachers, a central office official responded, “the [executive directors] and specialists probably have that conversation with school leaders, but we do not mandate that centrally” (District D).

### *Accountability in Teacher Hiring*

The final domain in which school systems can shape how principals use teacher effectiveness data in their hiring decisions is the way in which central office personnel hold either principals or the hiring process itself accountable for quality decisions. The system that provided the most structure to their hiring process, with an extensive centralized screening process and clear expectations for how principals should review candidates, exemplifies both of these ways in which the central office used accountability in teacher hiring. First, this system also reviewed principals’ hiring decisions and added an outside member to the school hiring committee if they were concerned the principal was not making quality hires. “There are a couple of schools that I have required them to make me a part of that process because they just



haven't consistently hired well over the past few years and so I'm concerned about the decisions they're making. We're hiring teachers and then having to put them on plans within a couple of months, and clearly there's a breakdown in practice somewhere" [District G]. The superintendent in District A reported calling principals to ask about how they hired particular teachers.

Another method of holding principals accountable for hiring decisions was that systems conducted analyses on components of their hiring process to improve the overall process. For example, one system that used a commercial screening instrument for all candidates conducted an analysis that compared teachers' scores on the commercial screener with their teacher effectiveness data and found that there was not a strong correlation between the two indicators (District C central office). Other systems with more extensive screening processes also reported initial efforts to examine whether the screening rubrics were related to teacher effectiveness once on the job. Some systems reported using teacher effectiveness data to better target their recruitment efforts toward universities or programs that prepare highly effective teachers, although it was not clear how this information was used or acted upon.

One concern about a more active central office in recruitment and screening, setting expectations for principals in hiring, and accountability in teacher hiring is the potential effect on principal autonomy if hiring becomes more centralized. School systems that took less active roles in these areas noted that they valued principal autonomy in hiring and did not want to create centralized processes that limited principal autonomy. For example, a recommendation by the human capital office in one system for a more active role in candidate selection was rejected by senior leadership because it "clashed with the idea of autonomy, that like centrally we shouldn't require all candidates to do anything besides be certified and stuff like that. But they should not have to get rated on the same rubric" (District D central office). Yet systems with

more centralized screening processes saw their role not as removing principal autonomy, but as supporting principals in making hiring decisions efficiently. One central office personnel noted,

We get thousands of applicants and we want to narrow down to really the best ones and then let our principals spend their time on it. It's not a really great use of their time to be separating the wheat from the chaff...This is a time consuming process per candidate for the principals in the school. I call it expensive in terms of time and personnel hours...So we're really doing all this vetting up front. (District G)

This system, which had a large number of vacancies due to teacher turnover and enrollment growth, was concerned about the amount of time principals spent reviewing applications, and thus wanted to focus principal energy on reviewing only the highest quality applicants. A principal in this system confirmed that he/she saw the role of the central office as valuable,

I live by that data. I put a lot of trust in the consultants who do interviews on the phone. They had notes...I definitely reviewed it first, saw if there was anything that I saw that could be a red flag for me, chose not to interview certain candidates for specific reasons because their answers weren't very clear. (Principal, District G)

The data also point to distinctions between centralized practices that limit principal autonomy more generally, and practices that facilitate or encourage the use of data in hiring. The interview data provided some evidence about why the central office structures to encourage the use of teacher effectiveness data do not appear to limit principals' sense of autonomy over hiring. In the interview data, most statements about lack of autonomy over hiring by principals were related to district practices about surplus pools and other contractual provisions. "I just think the hiring process is what's limiting us, it's because of those transfer periods, those pools, those hiring freezes, that's what more limits us." (District A). Centralized rules that restrict which candidates the principals can consider, or force them to hire particular teachers, were criticized for reducing principal autonomy over hiring in their school. That is, the practices that principals found most limiting to their autonomy in hiring were less about how the central office screened candidates, or the expectations about how to use teacher effectiveness data in hiring, but about

restrictions on hiring from a surplus pool or waiting until after a particular deadline for considering external applicants. As consistent with prior literature on principal hiring, these centralized rules prompted principals to try to manipulate the system so they could have more autonomy in hiring. The central office structures that encouraged the use of data for teacher hiring, however, were, in general, seen by principals as not restricting their autonomy, but providing information and guidance to a complex hiring process.

#### *Variation in Principal Data Use by Central Office Structures*

To further understand how the structures put in place by the central office influenced the extent to which the principals used teacher effectiveness data for hiring, we used survey data collected from all principals in six of the eight systems to test this hypothesis. Our conceptual framework suggests, that variations in district expectations and practices would influence the actions of principals working within such contexts. The survey data available provide evidence about the extent to which principals access and use different forms of teacher effectiveness data in their hiring decisions. The survey asked about use of data in hiring three ways. First, we asked if principals had access to three forms of teacher effectiveness data (observation scores, measures of student achievement growth, and overall evaluation scores) for candidates applying to transfer into their school. Second, we asked if they used these measures when hiring transfer applicants, either via access through the central office or by requiring candidates to provide them. Third, we asked principals to weight the importance of various factors in their hiring decisions, assuming they had access to all forms of data. The factors included: teacher observation scores, the overall evaluation score, measures of student achievement growth, direct observation of instruction, their own professional judgment on the candidate's effectiveness, their own professional judgment on the candidate's ability to improve, and recommendations. Table 1 provides evidence on whether

principals had access to teacher effectiveness measures and whether they used them in hiring transfer applicants. About one-third of principals across the six systems indicated that they had access to each of these forms of teacher effectiveness data from their central office. It is notable that even within a system, principals are not sure that they have access to these data for transfer applicants. Still, there was variation by system in whether principals reported having access to these data for hiring. For example, whether principals reported having access to teacher observation scores for transfer applicants ranged from 11% in one system to 60% in another system.

Further, about two-thirds of principals reported using each of these forms of data for hiring transfer applicants. The fact that more principals reported using the data than reported having access to it from the central office suggests that about a third of principals were requesting candidates provide these data. Principals were slightly more likely to report using teacher observation scores (71%) than measures of achievement growth (61%). Again, there was variation by system. For example, whether principals reported using teacher observations when hiring transfer applicants ranged from 11% in one system to 85% in another system.

To further explore how central office practices around hiring influence how principals use data, Table 2 provides evidence on how the use of data for hiring transfer applicants varied by whether the system was categorized as a high structure or low structure system in regards to structures established for teacher hiring. According to the conceptual framework we have laid out, principals in high structure systems should use data more frequently than those in low structure systems. For example, districts have been found to play an important role as change agents by ensuring processes and procedures are aligned with desired changes – in this case principals' use of data in the hiring process. High structure districts also aligned their own

practices and system structures to create coherence, which subsequently encouraged and facilitated the incorporation of the desired change, in this case the adoption of teacher effectiveness data use in the hiring process (Rorrer et al., 2008). Furthermore districts set routines and expectations around data use (Grissom et al., 2015; Wohlstetter et al., 2008).

For all three forms of teacher effectiveness, principals were more likely to report using data if they were in a high structure system. For example, 75% of principals in high structure systems reported using teacher observation scores when hiring transfer applicants, compared to 53% of principals in low structure systems.

In addition to asking about the hiring of transfer applicants, the survey also asked about the importance of various factors in all hiring decisions, assuming the information was available. This question asked principals to weight the importance of teacher effectiveness data with other factors, such as their professional judgment, direct observation of instruction, and recommendations. Table 3 reports the results. Across all systems, principals rated measures of student achievement or growth, as well as their own professional judgment of the teacher's potential effectiveness, as the most important factors in hiring. However, there are notable differences between high and low structure systems. Principals in high structure systems were more likely to rate the three direct measures of teacher effectiveness (measures of student achievement or growth, teacher observation scores, and overall evaluation scores) as very important in hiring compared to low structure systems. Conversely, there is no difference between system type in principals' rating of more traditional hiring factors, such as their own professional judgment and direct observation of instruction. Principals in high structure systems were also more likely to rate recommendations by others as very important in hiring, which is a more traditional hiring factor, although the difference between system types was small.

Again, this aligns with our conceptual framework. High structure systems placed expectations on individuals that, in fact, influenced their hiring behaviors. This was especially evident in the differences surrounding newer and more complex measures of teacher effectiveness data. These findings demonstrate how districts can assist principals in understanding the unknown and ambiguous (Waterman, 1992), guide the sensemaking process, and construct principals' understanding of the world around them. Given the newness and complexity of new forms of data such as value added measures, and the differences observed between principals in high versus low structure districts, we believe this point is particularly important. Overall, the relationship between data use prevalence, its perceived importance, and district structure, leads us to conclude that districts that proactively support the use of data in the hiring process encourage the use of these measures when principals engage in the practice of hiring.

### ***How Are Principals Using Data?***

While central offices mediate principals' use of teacher effectiveness data in hiring, we found that principals used data to various extents in the hiring process, and that this was not only a byproduct of district culture and expectations, but also principals' individual approaches to the hiring process. In this section, we describe the ways sensemaking and social construction can be leveraged to understand individual-level variation beyond the purview of district-level influence. First, we present three *ideal types* of users – high, medium, and low users. Here, we describe the typical usage of data during the hiring process that each of these types exemplifies. The ideal types, which themselves emerged from the data we collected, allow for the depiction of principals' various uses of teacher effectiveness data. It should be noted that ideal types are a heuristic tool (Weber, Mills, & Gerth, 1947; Weber, Shils, & Finch, 1949), useful for making

comparisons between categories. The word ideal does not connote a value judgment. Rather the ideal type serves as a tool meant to articulate pure forms of any given phenomena, even though it is unlikely such a pure form could ever exist in the social world. That said, the majority of the principals we spoke to fell into the categories of moderate to low use data users in hiring—relatively few mirrored the high-end user.

By creating this typology of high, medium, and low users, we note that there are certain practices that were common amongst all groups, and serve as the backdrop for traditional hiring – e.g., reference checks, interviews with the principal or a hiring committee, and reliance on the professional judgment of the principal. We acknowledge that all of these practices provide principals with information that can help guide successful hiring decisions. The common practices, however, are interwoven with use of other forms of data to varying degrees, and these differences are what differentiate principals in terms of their level of data use, and ultimately distinguished high-use principals making data-rich decisions from others. Following the description of each of these ideal types, we focus in on the drivers of variability in data use that we identified amongst individual principals. We pay special attention to how the three major types of variability can be understood through the lenses of social construction and sensemaking at both the individual level as well as returning to the ways in which district context might influence these areas of individual level variation.

### *High-Use Principals*

High use principals consistently incorporate teacher effectiveness data into their hiring processes. When they are able to access data such as student-growth indicators or composite teacher evaluation scores they do so. For principals considering within district transfers, they reach out to their central offices when the data is not available to them via a data dashboard. As

one principal described, “if I’m looking for a particular data point, it’s a phone call away. I can talk to [the central office] and have that within, you know, a couple days at the most” (District G). When this data is not available by either method, or the applicant is new to the system, these principals ask applicants to bring prior observations and/or evidence of student-achievement with them to interviews, or to submit such information beforehand, so they may review data prior to the actual interview. One principal explained, “I have one teacher who chose my school in the [hiring] pool, and when he came to see me, I said, ‘Oh, here, sit down at my computer and pull up your observations,’ because I can’t do that unless they’re at my school. He said, ‘Oh, I don’t think I can do that.’ I said, ‘Oh, yes, you can. I’ll help you.’ So he did...I printed out his summary report” (District A).

Ultimately, while principals may rely on different types of data, or give more weight to some forms over others, they are consistently engaged in the process of gathering and reviewing teacher effectiveness data as they consider hiring decisions. Take for example this principal: When I first started...I would look at their practice. If they were like fresh out of college I’d look at their practice board, you know, as to how well they did on the teacher test, look at their transcripts if they had no experience. And if they were experienced teachers I would use their - I would have to go to Human Resources to actually look at their evaluations from previous principals. But now that we have the whole [evaluation] rubric and data report, I require teachers to bring their [evaluation] data reports to the interview. And I also ask them to bring [value added] data if they’re teachers in such a grade...I ask teachers to bring their writing scores. And I ask the teachers to bring me a copy of their [students’ state test] scores from the previous year so I can see what their track records are. [District B]The following excerpt from a high use principal demonstrates the weighing of different types of data, the concurrent use of professional



judgment, and a nuanced approach to evaluating teachers' value added scores. The principal demonstrated a keen understanding of the differences between the evaluation scores in their system, and how they might be inflated by other teachers' performance in the school. They engaged in a conversation with the candidate about their value added scores, as well as how the candidate used data in their own teaching practice. Furthermore, this principal examined strengths and weaknesses in the potential hire according to their evaluations, and weighed those against overall need within the school, and the strengths and weaknesses of current teachers and students.

I ask teachers to bring a resume, and then I also ask them to bring their test scores, because a lot of people can say what they did, but I want to see it on paper, and then I want them to tell me what they did because the new evaluation if you look at it... sometimes your scores are good based on someone else's... I talk to them to ask them to share with me what makes you the perfect person for this job, and then show me your data based on what you did...I don't only just look at their data...I also look at background information...And sometimes I just say how do you use data...? I look at where my students are, where their needs are, where there are areas that they need to strengthen, and areas that we need to continue that they are proficient at and advanced...So I ask them all that to help me with my teacher hiring. And then just basically, what's the most important thing you can teach a child? And that gives me a perspective when I'm hiring. [Principal, District C]

Furthermore, high use principals make use of tools deployed within their own school systems to assess potential hires. This is most evident through the demonstration lesson process. High-end users evaluate demonstration lessons as they would conduct formal evaluations of teachers in their schools—even using the same observation rubric. They follow the observation process, which usually involves a brief conference prior to the lesson, observation of the lesson, a ranking of the lesson according to the domains of the official observation rubric, and then a post-lesson conference. In the post-observation conference the lesson is discussed, the teacher is asked to reflect upon its strengths and weaknesses, and the principal offers feedback. The post-

observation conference becomes another mechanism by which the principal evaluates a potential hire's ability to mesh with the school/system culture, and to take advice necessary for growth and success should they be hired. In the following excerpt, a principal summarized their hiring approach, and emphasized the importance of providing feedback after a lesson to candidates.

It starts with looking over the applicant's information, background check, make sure everything's solid there, and I will do a reference check as well, followed by usually a 30 [minute] to sometimes hour long interview depending on how it's going, but I'd like to figure it out within a half hour. I feel like I can [tell] whether or not I want them to come to a demo lesson. That goes on for an hour. *Then we debrief about that and even if the demo lesson goes well, it could still kind of lead to non-hire depending on how the debrief goes. We like to test that too, to see, "Okay, I've got to give them some feedback that's not all positive, and see how they can handle it."* You know, and in doing that, I go like, "I would've have liked to have seen this. You did great X, Y, and Z. I would have loved to have seen this part like this." So it comes out I think kind of nice. *I'm not trying to be too critical, but if they're very combative right then and there, I go, "okay, maybe this isn't a good fit because we're going to be doing a lot of this throughout the course of the school year..."* [Principal, District H, emphasis added].

We learned that when demonstration lessons were conducted in front of a hiring committee, principals ensured committee members were familiar with the rubric as well, so that they too could judge lessons using the mechanism by which teachers within the system were evaluated.

There's a rubric associated to this evaluation when teachers are interviewing, so those numbers when you calibrate with your hiring panel, which is usually my instructional leadership team...I invite them to participate in all of our hiring decisions. So we calibrate on our scores...So here at the school site, the data that we collect is around different indicators within our [teacher observation] rubric... within the 20-minute demo lesson that they do, so checking for understanding, lesson preparation, questioning, teacher feedback, and grouping. So these are different areas that are used within that demo lesson that we're looking at. So that data helps to identify how well a teacher is preparing the lesson, and how well they actually deliver the lesson and implement strategies for effective teaching with the lesson. [Principal, District G]

The demonstration lesson became more than a performance of teaching, and instead offered important information such as planning abilities, pedagogical approaches, interpersonal skills, and the ability to relate to students, as well as the ability to be a reflexive practitioner, and to be

coached and grow within the structure and culture of the school. What may have been left to professional judgment of whether a candidate was successful in a demonstration lesson became more transparent and open for systematic evaluation.

High end users continue to rely on standard hiring practices like checking references, but they do this to fill in gaps. The principal quoted below described the data they relied upon, but explained that data does not always tell the full story.

As far as hiring is concerned, if I'm interviewing some candidate that is within our county then I certainly will pull up and look at their evaluations or observations and evaluations, just to see...what their strengths are, and what they have to bring. Of course, we also want to call and talk to their principal to find out what kind of personal type of stuff. Because a lot of things that the evaluation might not tell us are like attendance and their participation in school activities and you know that kind of thing. [District A]

Recognizing that the data may not paint a complete picture, the principal quoted above continued to rely upon checking references, but this was a supplemental practice, rather than one that formed the foundation of the hiring process.

### *Moderate Use Principals*

Moderate use principals rely on many of the same general practices as high-end users (e.g., interviewing, demonstration lessons), but teacher effectiveness data is infused into the process inconsistently. These principals do not discount this information entirely, but do not seek it out on their own, nor do they require applicants to provide it themselves. When teachers provide data on their own volition, mid-range users may use it as an additional piece of information as they judge whether a teacher is an appropriate hire for the school; they do not discount the data all together.

While it is common for all types of principals to have candidates perform demonstration lessons if possible, mid-range users differ from high end users, in so far as they do not evaluate

these lessons according to the observation rubrics used within their school systems. One respondent we classify as a moderate use principal stated

So I use kinda just basic experience, knowledge, and then myself and a team of teachers interview those people. And then we usually narrow it down to two that we'll then observe teach... During the school year we have invited teachers here to teach in a classroom for about an hour, and so typically the assistant principal, myself, and that teacher of that classroom observe them... [During observations] I usually look for three broad areas. One would be classroom management, relationships with students. So we look at that both when we observe...[another] area would be instructional or curricular knowledge...we get a feel for both instructional knowledge, how they teach a lesson beginning to end, as well as understanding literacy skills and strategies, and we ask questions about that as well. And then the other piece would be collaboration, teamwork, how they interact with their team of teachers. [District E]

To learn more about the hiring procedure described above, we asked the principal whether the team used “some kind of tool” to help track a candidate’s performance. The principal responded, “I would say we're on the same page. Have we had that explicit discussion that these are the three things we are looking for? I don't know” [District E]. Medium use principals rely on professional judgment, and “knowing what good teaching looks like” to judge demonstration lessons. The evaluation of the observation is far less systematic than in the case of the high data use principal.

#### *Low/Non-Users*

Though working in districts that have adopted multi-measure evaluation systems, non-use principals have not incorporated teacher effectiveness data into their hiring practices. One principal we asked about data use in hiring responded by saying, “I have not asked for that (data on previous performance). That would be one that we could possibly use, because that would tell how well they’ve done with the group of students that they had previously. We haven't used that, but that’s a good one” [District G].

In these instances the hiring process is dominated by reference checks, interviews, and occasionally, demonstration lessons. When low-end users require demonstration lessons it is because they are most interested in observing how applicants respond to the school's students and the school environment. They are interested in whether the prospective hire will be able to communicate with, relate to, and/or manage the student population they will be assigned to teach. As this principal explained

Ideally, I think it would be great if you had a teacher come in and interview in May, and they could go in and teach a class for you. I mean that would be wonderful. But we don't do that...of course you call the principals if they worked. You call their professors if they're right out of school. You look at their grades. You look at their specialty...I think a big part of being a successful teacher is relating to the kids, so you look at that relationship piece. Do you see that they would build that relationship, and that trust with the student...? You know with the low-level, low-achieving kids, they don't really care about you too much until they know you care about them...So you have to look specifically for teachers like that, and we've been targeting some great ones in the last few years. [District A]

While all three types of principals rely upon professional judgment, this becomes the primary source upon which principals draw when they do not consult formal data in the hiring practice. The following principal discussed the importance of evaluating candidates' values as a driver in the hiring process. According to this principal, however, one never really knows if a teacher will be a good hire until they are hired and "in the building." Observation only happens once a teacher is hired, as opposed to the high-end user who not only observes a demonstration lesson, but systematically evaluates it, and perhaps even provides on the spot feedback.

One of the first things I look at when I am hiring a teacher is their love of children and love of teaching, and their values, their core values and their beliefs in terms of education, particularly urban education and dealing with a population of students in [this district]... So that's one piece, cause you want to get a good fit. You want someone that believes that all children can learn, and we know they all learn at different rates. But that someone that's going to set high expectations, expect those students to rise to those expectations, and have a variety of strategies and interventions that they can use to meet

those students' needs. So that's one of the things that I'm looking at when I hire. But you never know until you actually have the person here in the building and they actually fulfill the practice of it, and you get an opportunity to observe, coach, and work with those teachers. [District D]

While the principal above strived to hire teachers who "have a variety of strategies and interventions that they can use," they were unable to evaluate teachers' actual practice until they were "in the building." The high-end user has a mechanism, a systematic evaluation process of demonstration lessons, which would help gauge just this.

### ***Individual-level Contributors to Observed Variability***

Despite the proliferation of teacher effectiveness measures in the study sites, many principals struggled to incorporate these data into the hiring process, or were not doing so at all. Though we identified numerous practices which together comprise the ideal type of the high-end user, these users were a minority. Some of the variation we observed is attributable to practices and expectations established by the central office (see above), while some variation manifested at the individual-level. Individual level drivers of variation included: knowledge and skills, perceived validity of data, and amount of social capital. We address each of the following below.

#### ***Skills and Knowledge***

Principals' skills and knowledge were important drivers of data use. This category of skills and knowledge includes principals' awareness of the data available to them, their ability to use the required data systems to access that data, as well as their ability to analyze and interpret the data. Some principals expressed a desire to use data in the hiring process, but believed they did not have access to these data. While this may at times have been true, it was not always; *many principals were not aware of the resources available to them.* In the following quote a principal expressed both the desire to use data, and the lack of knowledge regarding available

data.

[Hiring is] pretty much up to my discretion. I am developing a hiring plan that involves looking at resumes and things like that, but there isn't a lot of - I don't have access to a lot of data on these teachers. ... Now if I am looking at a more veteran teacher, of course I'm going to pull up what I can pull up on their evaluations and things like that. But I think up until this point, I know last year things went into [our observation system], and then this year I've been putting things in, but I think, I'm not even sure of my access data, my access point - how much can I see on a teacher? [District D]

Below, another principal provided an example of how a lack of knowledge about what is available impeded the data use process.

...if we had something to know about who was coming to the school, who we were interviewing so that we could make a better decision of whether this person would be a good fit for our school or not, and that takes knowing the strengths and weaknesses of our school. So, just like a basketball team, if you have some, a three-point shooter, and my school is low in that, then that's someone that I want to hire. So, if I have more access of their strengths and weaknesses, it would be great to help me make a better decision about who to bring on board here. That would be great just to have that access. It would. And if I had that, I wouldn't need anything else really. And I know that's a tall order, but it would be, that's the perfect world for me. [District B]

In other interviews with principals from the same district, we encountered principals who required candidates to provide observation and value-added data, suggesting this is an individual level characteristic, rather than a systemic barrier (e.g., the District B principal who provided an example of high use characteristics, cited above).

Even when principals were aware of the data available to them, they did not necessarily know how to access the data. This was complicated by an absence of integrated data systems in many districts. Principals often had to consult numerous data platforms to gather teacher effectiveness data. This meant they needed to know how to use each program, and which platform offered the type of data they sought.

I still don't know the ins and outs...so I'm tripping over trying to get a report...that takes a whole lot for somebody walking into a leadership role to do

all that backtracking, you know what I mean?...So for me to access data, it's taken me a while to figure out where I can simply get something...and then part of it is I don't even know necessarily what's out there... [Principal, District D]

Another impediment to data use under this category was whether principals were able to analyze data.

My main challenge is not the use of the data, it's me having to analyze, dissect, crunch the data...some principals may not be as comfortable in doing that. They struggle. But I don't think it's fair to them to go through that when you could have someone that's doing that and really data is made, for data to be effective it should be readily accessible and available, so you don't have to spend time to get it all together...there's just not enough hours in the day to do all of that...[some principals] may not know how to do it. You know I'm really comfortable in it, but you have some principals that's not, and I don't think it's fair to them... [Principal, District B]

In sum, our data suggest that principals faced three major barriers to data use under the umbrella of skills and knowledge. The first, was basic awareness of what was available to them, the second was the ability to access the data via the data systems in which they were housed, and the third was the lack of skills needed to analyze the data so they could draw meaningful results and apply them to hiring decisions. These hurdles again point to the important role districts can play in disentangling the complexity of data for principals. That districts have the ability to encourage data use and fluency by devoting time for school leaders to learn to make sense of and apply data speaks directly to the hurdles which impeded principals' data use in the hiring process (Halverson et al., 2007a; Park & Datnow, 2009).

### *Perceived Validity of Data*

Perceived validity of the various components of teacher effectiveness data (e.g., value-added measures, observation ratings, student surveys, etc.) was another factor in a principal's use teacher effectiveness data. From a sensemaking perspective, perceived legitimacy influences individuals' subsequent actions. Similar to Coburn's (2006) study that found teachers more



likely to implement practices when they felt requests made of them were legitimate, we similarly attribute some of principals' willingness, or lack thereof, to infuse new forms of data in their work processes to the legitimacy they attribute to such data. In the following interview excerpt the principal expressed multiple concerns about the quality of data, whether the data told a true story, and apprehension about using data that might be flawed.

*Principal:* The challenge is reliability of the data... So, is the data really telling us what we need to know, or what we need?... How practical is it?...I want to believe in that data, because we're making decisions based on data, right? Data gotta be good data, right? It's gotta be analyzed correctly and appropriately, right? And once again, once you make these decisions based on data, you can always say hey, the data [were] solid, it was flawed, okay, but we believed in data...

*Interviewer:* Is there one set of data that you feel more concerned about than the others in terms of reliability...?

*Principal:* It's all connected. See, the observation gives you one set of data. Then who's doing the observation, right? [District B]

The principal quoted above expressed a broad concern about the data, noting that it was all connected. For example, a teacher's overall evaluation is a composite of multiple measures. This particular principal focused on the observation scores. By asking, "who's doing the observation, right?" the principal expressed concern that observers' ratings might not reflect teacher quality. We encountered some instances when principals conveyed the belief that classroom observations were not consistent across evaluators, and therefore could be very different from their own appraisal of the teacher. This was especially true with candidates transferring from other districts, but at times even within the same school system—particularly in systems with less rigorous calibration procedures around the observation rubric.

According to the survey data, value-added and other student growth measures were seen as less valid indicators of teacher effectiveness when compared to teacher

observations.<sup>‡</sup> The following quote exemplifies one typical concern related to the validity of student growth percentiles and value added measures in evaluating teachers: “I rarely use the [value-added] data in hiring just because I think that there’s so many factors involved in [value-added] data that it’s hard to just look at that individually without knowing a person and watching them teach” (Principal, District F). Another principal concisely expressed a similar sentiment: “In some cases the teacher got the school-wide [value-added score], and how do I use that data to make good hiring decisions?” (District B).

Finally some principals believed that much of what teachers do does not appear in data. This principal told the story of a teacher working with a student who was particularly alienated from school. The principal explains that the work teachers must do to reach students in this or similar situations would not be reflected in data.

...at some point in time folks are going to have to understand...data don’t do it justice, because when you get to a point where this young man, he’s in jail, [you] invested some time and energy into this young man... You got him. So, now instead of you going off and threatening or even bringing a pistol here, you’re not going to do that because [of] Mr. Charles... You know what I’m saying? So, you’re dealing with things like that. That’s not going to show up on data. (Principal, District D)

### *Social Capital*

A third category by which principals differed involved principals’ social capital. By social capital we mean the ability of actors to navigate social and organizational arrangements in ways that provide them with resources to accomplish any given task (Coleman, 1988). For example, we found that some principals relied on informal networks of principals they had

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<sup>‡</sup> See Goldring, et al, 2014 for more information perceived validity of the teacher effectiveness measures.

cultivated, or relationships with central office personnel to access teacher effectiveness data. These connections served as sources of information regarding how to access data that were not easily available, or how to interpret and make use of various data elements. While some of the difficulty in knowing how to access data was likely due to central office data systems and training, the evidence also suggests there was considerable variation within districts on whether principals knew who to contact for support. For example, one principal told us, “It's not like I have a magic number I can call and go, ‘hey, can you get me...’ No, that's not how it works, and I wish it did” (District D). On the other hand, a principal *from the same district* told us about numerous support systems upon which she could rely: “So sometimes even if it’s a report that we don’t see, we don’t know how to run, we can ask these people [from the central office]... We also have a data specialist... I can as a principal pretty much get whatever it is that I’m looking for... Just an email” (District D).

While there was variation in the degree to which individual principals knew who to contact at the central office, principals also varied in the degree to which they relied upon one another. One principal who struggled with navigating the numerous data systems he needed to access told us he felt as if he had no formal support. When we asked him to explain how he managed, he responded, “I’ll call one of my principal friends and say, you know, ‘what do I do, how do I get this...?’” (District D). This was not the case for all principals, however, especially those who were new to the system. Principals also mentioned relying upon principals who had served as mentors, even when those principals worked in other systems. Some principals made use of connections from training programs, or residency programs, while others depended on principals under whom they worked when they themselves were either teachers or assistant principals. It is through shared social interactions in instances of uncertainty that principals

construct subsequent actions. Their interactions with others directly influenced their ability to access data and make use of it in the hiring process. Principals relied heavily on informal social networks in our work. The importance of social capital and social interaction, paired with the notion that that action is mediated through social interaction suggests a powerful mechanism by which districts could encourage data use in the process of teacher hiring.

### **Conclusion**

This study focused on school systems that are at the forefront of developing and using new measures of teacher effectiveness. We found that principals were beginning to use these measures for teacher hiring, but the extent and ways in which principals were using the data varied based on principal skills and knowledge, perceived validity of the data, their own social capital, and the ways in which the central office structured, supported, and created expectations for how principals make hiring decisions. Hiring practices are key components of how districts and schools manage their human resources. Helping school systems and principals to make efficient and informed hiring decisions is of utmost importance given the fact that teachers are integral to student learning.

Our findings indicate that the majority of the principals fell into the categories of moderate to low use data users in hiring—relatively few represented the high-end user. The findings from this study are consistent with prior research on principal hiring decisions that find a mix of individual principal characteristics and district practices mediate how they make hiring decisions (Donaldson, 2013; Papa & Baxter, 2008). The relative scarcity of high data use in hiring decisions reflects much prior literature on hiring that principals are constrained by central office processes (Levin et al., 2005; Levin & Quinn, 2003; Liu et al., 2008). Principals in hard to staff schools are constrained even further by the preferences of teachers (Cannata, 2010; Engel et al., 2013). Still, our findings suggest that, beyond formal centralized hiring procedures, the

central offices played key roles in mediating how principals approached using teacher effectiveness data in their hiring decisions. This is consistent with the notion of central office personnel as mediators and brokers in how principals interpret improvement efforts (Honig & Venkateswaran, 2012b; Honig, 2012b). We found that in school systems that provided clearer expectations for principals and held principals accountable for their hiring decisions, principals tended to use more information-rich processes when they hired teachers.

In addition to the central office, several characteristics of the principals themselves, such as their knowledge and skills to analyze data, how they perceived the validity of the underlying teacher effectiveness data, and social capital, influenced the extent to which they used teacher effectiveness data for hiring. Using data effectively requires certain analytic skills that not all educators have (Wayman & Stringfield, 2006). Social networks has also been shown to influence how educators make sense of reforms (Frank, Zhao, & Borman, 2004) and thus it is not surprising that principals' social networks influenced how they used data. Finally, principals have concerns about the validity and usefulness of value-added measures that shape how much emphasis they give to such measures (Goldring et al., 2015).

As one of the first explorations of the role of teacher effectiveness measures in teacher hiring, this study has a number of limitations. First, the school systems were selected as those that were at the forefront of developing teacher effectiveness measures and had devoted considerable resources to doing so. Thus it is unclear if our findings generalize to systems without such a strong commitment to teacher effectiveness measures. Second, the interview sample does not allow for us to examine how the pattern of high, medium, and low data use principals are represented across high and low structure districts, limiting the ability to make similar comparisons across the qualitative and quantitative data. Relatedly, the data are limited in

the ability to directly connect individual principal characteristics and district characteristics to determine how much statistical variation in principal use of data in teacher hiring is explained by district or individual characteristics, even as our findings suggest both are important.

Despite these limitations, the paper makes a substantial contribution to understanding the role of emerging teacher effectiveness measures in hiring and has implications for policy and practice.

Efforts to increase principal use of teacher effectiveness measures need to face the challenges in supporting principals to gain the necessary skills and knowledge. As leadership preparation and professional development programs prepare principals for new expectations around data use, it is important to focus on these types of job-embedded analytic skills. Principals need additional support in identifying specific data that could help them answer particular questions required of their job, such as which job applicants have evidence of excellent teaching performance.

Relatedly, principals and school systems more generally need more specific evidence to help them make informed decisions when hiring first-year teachers, such as pre-hire indicators that are predictive of later teaching effectiveness. Our findings also suggest that central office personnel who want to shape how principals make hiring decisions can do so in how they recruit and screen candidates, establish expectations for principals, and hold principals accountable for hiring decisions.

Several areas of additional research are warranted to further understand the impact of teacher effectiveness measures on hiring. First, this study focused on school systems that were at the forefront of developing teacher effectiveness measures; additional research that includes a broader array of school systems with varying commitment to teacher effectiveness measures can add to our knowledge of how these measures are influencing hiring more generally. Second, our findings highlight a distinction between centralized hiring procedures more generally that

principals report as constraining their autonomy, and more targeted hiring structures that some school systems used to encourage the use of teacher effectiveness measures. Alongside other research that principals report increasing autonomy over the teachers hired in their schools (Engel et al., 2015), this may be an indication that the role of the central office in hiring is changing. Future research should explore this evolving role of the central office in new teacher hiring. Finally, while we found that most principals were moderate to low users of teacher effectiveness data in hiring, there is little evidence that being a high data user results in better hiring outcomes. That is, future research on teacher hiring needs to extend past the point of hire to identify hiring behaviors that predict later outcomes.

Using effectiveness data for hiring teachers is challenging as candidates may be new college graduates, experienced teachers from another school in the system, or experienced teachers from another system or even state. This means that, in addition to more traditional barriers to data use such as data accessibility and data analysis skills (Honig & Coburn, 2008; Wayman & Stringfield, 2006), principals have to grapple with the fact that different candidates will have different types of data available, depending on their prior experience. This creates particular challenges for principals in high poverty schools, who often have sparser applicant pools with more inexperienced teachers than principals in more advantaged schools (Engel et al., 2013). Still, our results demonstrate ways in which certain school systems and principals are incorporating teacher effectiveness data, and the teacher evaluation process more generally, into the process of teacher hiring. In particular, high-use principals were distinguished in the way they used the system's evaluation rubric to structure how they observed candidates' demonstration lessons and focused questions during interviews. These principals were often in the high-structure systems that actively screened candidates using indicators from the evaluation

system and set clear expectations for principals. Indeed, this use of the teacher evaluation rubric in hiring is consistent with research that the presence of a comprehensive evaluation system itself (in addition to the data produced by it) can aid principals in their work (Rubin et al., 2015). This incorporation of new teacher evaluation systems into teacher hiring is noteworthy not only as a way to use new forms of data themselves, but also as a potential mechanism for signaling to potential new teachers what the system considers to be an effective teacher. This is important since the hiring process is the first stage in establishing the work environment for new teachers (Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004). Teacher evaluation systems have the potential to serve as an important definition of high quality teaching in a school system, and incorporating that language into the hiring process can help to induct new teachers into the work of the school.

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## Tables

Table 1 – Principal access to and use of teacher effectiveness measures in hiring transfer applicants

	Have access from central office	Use the data, either by accessing through central or requiring candidates to provide it
The teacher's observation rating	39.9%	70.8%
Measure of achievement growth of the teacher's students in prior years	35.6	61.9
Teacher's overall evaluation rating	38.1	68.2

Note: N= 685 for whether they have or use data on the teacher's observation rating and measure of achievement growth of the teacher's students in prior years. N=682 for whether they have or use data on the teacher's overall evaluation rating.

Table 2 – Percentage of principals who reported using various teacher effectiveness measures in hiring transfer applicants, by degree of structure provided by the central office

	High structure system	Low structure system
The teacher's observation rating	74.4%	53.0%***
Measure of achievement growth of the teacher's students in prior years	65.1	46.1***
Teacher's overall evaluation rating	71.4	52.2***

\*\*\*Low structure systems are significantly different from high structure systems at  $p < .001$ .

Note: The number of observations varies slightly due to non-response. N=567 to 570 for high structure systems and N=115 for low structure systems.

Table 3 – Percentage of principals who rated various factors as very important to their hiring decisions

	All principals	High structure system	Low structure system
New measures of teacher effectiveness			
Student achievement growth	71.7%	73.5%	62.8%***
Teacher observation scores	59.9	62.4	47.9*
Teacher's overall evaluation rating	64.4	67.0	51.7*
Traditional measures in hiring			
Direct observation of instruction	56.7	57.4	53.3
Professional judgment of the teacher's potential effectiveness	70.1	70.9	66.1
Professional judgment of the teacher's ability to improve	64.5	65.8	58.0*
Recommendations by others	57.6	58.8	51.7**

\*Low structure systems are significantly different from high structure systems at  $p < .05$ .

\*\*Low structure systems are significantly different from high structure systems at  $p < .01$ .

\*\*\*Low structure systems are significantly different from high structure systems at  $p < .001$ .

Note: The number of observations varies slightly due to non-response. N=578 to 582 for high structure systems and N=119 to 121 for low structure systems.

## **Appendix: Details on Data Collection Instruments**

Three main instruments were used to collect the data described here. These include an interview with central office personnel, a principal interview, and a principal survey. Due to the length of these instruments as they asked about many human capital areas, we provide the questions that focus on general context of the system and hiring.

### ***Central Office Personnel Interview***

#### *Hiring*

1. Can you please briefly describe the hiring process for **new hires** and the relative role of the central office and schools?
  - a. When do you know about vacancies?
  - b. When do you recruit and advertise? Screen? Place teachers? Do induction?
  - c. When are hiring decisions made?
  - d. [Interviewer: Probe on the following:]
    - i. Does the process look the same from school to school? Why or why not?
    - ii. Where does the district find its teachers (e.g., Are they local? Are they mostly in-state? Do they tend to come from particular preparation programs or routes, TFA?)?
    - iii. Does the district hire a large number of teachers late in the summer? What percentage of schools start the year with unfilled positions?
2. Can you please briefly describe the process for **transfers between schools** and the relative role of the central office and schools? [Interviewer: Mark answers on Calendar.]
  - a. When are transfers decisions made?
  - b. [Interviewer: Probe on the following:]
    - i. Does the process look the same from school to school? Why or why not?

3. What **types of data** are used in teacher hiring decisions? [Interviewer: Probe specifically for each stage: recruiting, screening, hiring, placement in schools, induction.]
  - a. How and when are these data collected? Who collects them? Ask for artifacts.
  - b. Does the district use any type of screening tool like the Gallup or Haberman Star Teacher?
  - c. How are these data made available to principals?
    - i. [Interviewer: Probe for the form of the data and the systems that support data accessibility.]
      1. How are they shared and disseminated?
      2. To whom do they get disseminated, how, and when?
      3. When is each type of data made available to school leaders?
  - d. Does the data that are used vary across schools within the district? How?
  - e. Does the data that are used vary across types of teachers (e.g., new or experienced, non-tested grade/subject)? How?
  - f. How are data used at the school level and by the central office for these hiring decisions?
4. What are the **expectations** you have for how school leaders will use data for hiring?
5. What is **working well** in the hiring process as it pertains to the use of data?
6. What **supports and PD** are in place for principals to learn how to use data for hiring decisions?
  - a. Do principals receive training on using data for teacher hiring? Do others in the districts?
  - b. Do they receive other supports to use the data?

- c. What types of supports would be helpful to enhance their data use for teaching hiring?
7. What is **not working well** in the hiring process as it pertains to the use of data?
  - a. What are unintended consequences of the approach used?
  - b. What are the barriers you see to principals and/or central office personnel using data more effectively for teacher hiring?
8. If you could wave a magic wand and design an **optimal system** that facilitates the most effective use of data for teacher hiring, what would that system look like?
  - a. What other data would you like to have when hiring teachers that you currently don't have access to?
  - b. What format do you think would be most useful for accessing data (e.g., data dashboards, spreadsheets)?
  - c. What personnel or other resources would make it easier for principals and central office to use data for hiring (e.g., principals themselves need to develop expertise to access data first hand, data coaches should access and provide reports for principals, data teams, teacher leaders, vice principals)?

*District Culture and Support of Data Use*

9. What does your office do to support school leaders in their use of teacher effectiveness data to make human capital decisions?
10. What are the formal policies, practices, and structures that might support the use of data for human capital management decisions?
11. What do you see as the major challenges school leaders to using data at the school level for human capital decisions?

- a. Do you think principals and other school leaders have the necessary skills and knowledge to use the data the district/CMO does collect? [Interviewer: Probe understanding of data, versus time to do so, versus interpersonal skill set to confront difficult conversations, versus school /district culture, union issues, what to do about what the data are saying (understand the data but don't know how to guide interventions and action, and so forth.)
  - b. What specific ways could school leaders learn data use: online, individually, as a group, school based, cases, problem-based?
  - c. What is difficult for school leaders to learn? What is easy?
  - d. What can be done to further develop these skills?
12. Thinking about school leaders who are particularly proficient users of data for human capital decisions, what do you think distinguishes them?
- a. What does he/she do and what happens in his/her school?
    - i. What decisions are data driven?
    - ii. How do you support his/her data use?
    - iii. How did he/she begin successful in data use?
13. Thinking about school leaders who are the least proficient users of data for human capital decisions, what do you think distinguishes them?
- a. Do you perceive the issues as technical (understanding the data) or interpersonal (not wanting to raise difficult issues, experience conflict)?
  - b. To what extent do you think school leaders think the data that are available to them are valid indicators of teacher quality and effectiveness?
  - c. What other data would they like



### *Principal Interview*

Many districts across the country, including your district/system, now have many new forms of information or data about teachers and teacher effectiveness that were never available before. We want to talk about how these new types of data impact the work that you do in area of human capital decision-making—that is, not in instruction, but in areas like the following the following:

- Hiring
  - Teacher Evaluation
  - Teacher Support and Professional Development
  - Assignment of teachers to grades/subjects
  - Assignment of teacher leadership
  - Contract renewal or dismissal
  - Compensation
1. Thinking about all the different types of information or data that are available, in your role as a leader in this school, **how do you use these data?**
  2. **How are others involved** with you in using data?
    - Probe for principal meetings, leadership teams, teacher teams, networking, sense making in the school or district wide
      - Are you using/sharing this data with other personnel in your school?
      - How public or private are the data both within your school and on the broader district level?
  3. What **specific information or data** do you use?
  4. What are some **driving factors** or reasons that shape the way you use data and make decisions with these data?
    - Examples and probes: district expectations, accountability requirements, district culture, personal approach to your work, best practice in human capital decisionmaking

5. How do you **access the data and what tools** do you have available to access the data?

- How is that working for you?
- Are these data all in one place, or do you get them from different places?

*[Note: May be helpful to probe throughout on different kinds of human capital decisions.]*

6. In addition to these measures, are there **other pieces of information** you use when you make these decisions?

- Probe:
  - Managing relationships, school culture
  - Informal ways of gathering data on teachers (e.g., calling other principals about a transferring teacher)

7. Do you think the types of information or data that you have is the **right kind of information** that you need to make decisions?

8. How do you **balance the data that you have with your own professional judgment** about teachers when making these decisions?

### *Barriers and Challenges*

9. **What barriers and challenges** do you face in using data to make these types of decisions?

**Interpersonal**

**Structural**

**Technological**

10. How could these barriers and challenges **be addressed**?

11. What is the **most difficult part of your job** in terms of using the data to make these decisions?

**Interpersonal**

**Structural**

**Technological**

*Most and Least Effective Users*

12. Thinking about principals who are **particularly proficient users of data** for human capital decisions, what do you think distinguishes them?

- Follow-ups: What does he/she do and what happens in his/her school? What decisions are data-driven?

13. Thinking about school leaders who are the **least proficient users of data** for human capital decisions, what do you think distinguishes them?

- Follow-ups: Do you perceive the issues as technical (understanding the data) or interpersonal (not wanting to raise difficult issues, experience conflict)? To what extent do you think school leaders think the data that are available to them are valid indicators of teacher quality and effectiveness? What other data would they like?

*Training, PD, and Support for Data Use*

14. If you could wave a magic wand and design an **optimal** system that facilitates the most effective use of data for these decisions, what would that system look like? We'd like you to discuss both what data you would like to see used and how you think you and schools should have access to it?

- What data would you like to have or think would be useful that you don't have now? What format do you think would be most useful for accessing data (e.g., data dashboards, spreadsheets)?
- What would make it easier for you to use data? (For example, developing data expertise yourself, data coaches should access and provide reports for

principals/teachers; better training with interactive materials, interpersonal development on how to provide feedback and have difficult conversations)

15. Can you tell me what type of training, PD, or support (mentoring, coaching) you have received to use data?

- Probe: What has been most helpful and most useful?
- Probe: Ask about what is taught and how.

16. If you were **advising us on developing supports for principals** to use data for all these decisions, what would you suggest...

- For example, what data would be most relevant to learn about?
- What is the best pedagogical approach? That is, in-school coaching, online, small group, workshop, individual vs. group-based, problem-based, case-based?
- Who should attend? That is, principals only, principals + VPs, teachers, coaches?
- What is most difficult for you to learn? What is easy?
- What can be done to further develop these skills?

*Timing*

17. Thinking about the different kinds of human capital decisions you have to make, do you think you have the **data at the right time**?

18. **When** would be most useful for you to have access to the kinds of data you've been describing for making those decisions?

- **In the case of data that doesn't get to you at the right time when would be better, or even ideal?**

*Role of Central Office*

19. What **role does the central office play/CMO** in your and your school's data use?

Are there district policies, practices and structures in place?

- Probes: clear expectations, supports and help, data systems and warehouses, training
- Holding principals accountable as part of their evaluation, mandatory PD, Ps meetings with CO, peer to peer networking?

20. To what extent does the central office/CMO **provide you with the right kind of data** or access to data, to help you make these decisions?

21. What **structures or practices** does the district have in place to support your use of data?

***Principal Survey***

This section asks about how you filled teaching positions at your school for 2013-2014.

17. For teachers who applied to transfer into your school from other schools within your district this year, did you have access to the following information about them when making hiring decisions?

	No, these data were not available to me in any form, and I <b>did not</b> require candidates to bring them	No, these data were not available to me in any form, but I <b>required</b> candidates to bring them	Yes, these data are available through a data system or central office, but I <b>did not</b> use them	Yes, these data are available through a data system or central office, and I <b>used</b> them
The teacher's observation ratings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A measure of achievement growth of the teacher's students in prior years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The teacher's overall evaluation rating (i.e., a rating that combines observation ratings, growth measures, and other data into a single rating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Assume that you have the following data. How important were each of the following factors in making decisions about hiring teachers for your school?

	Not a factor	A minor factor	A moderately important factor	A very important factor
The teacher's observation ratings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A measure of the achievement growth of the teacher's students in prior years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The teacher's overall evaluation rating (i.e., a rating that combines observation ratings, growth measures, and other data into a single rating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct observation of the teacher's instruction in my school (e.g., in a demonstration lesson)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your professional judgment, after interviewing the teacher, about the teacher's potential effectiveness in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your professional judgment, after interviewing the teacher, about the teacher's ability to improve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendations by others (e.g., references from prior principals, professors, or supervising teachers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>