

Teacher Hiring and Fit Within A Diverse School District

Frank Perrone and David Eddy-Spicer

[ACCEPTED FINAL VERSION]

This is an Accepted Manuscript of an article published by Taylor & Francis in *Leadership and Policy in Schools* on July 24, 2019, available at: <https://doi.org/10.1080/15700763.2019.1637903>

Final Article Citation:

Perrone, F., & Eddy Spicer, D. (2021). Teacher hiring within a diverse school district.

Leadership and Policy in Schools, 20(2), 168-190.

<https://doi.org/10.1080/15700763.2019.1637903>

Abstract

Research examining the teacher hiring process is scant and has largely ignored the principal's role. This qualitative, comparative case study uses Person-Environment fit to explore teacher hiring in two high schools with divergent characteristics in the same district. Findings suggest that fit is a dynamic quality, depending on school context and evolving through the phases of hiring and into job performance. Moreover, the dynamic of fit hinges on teacher experience and subject area taught. Awareness of varied trajectories of fit are crucial to the ability of the principal to design an approach to hiring appropriate to her or his school.

Introduction

Teachers are the most important school-level factor in student learning (e.g., Rockoff, 2004; Rivkin, Hanushek, & Kain, 2005) and hiring quality teachers is a critical component of school success and improvement (Hallinger & Heck, 1998; Horng, Klasik, & Loeb, 2010). Unfortunately, research examining teacher hiring at the school level is scant and has largely ignored the principal's role in the hiring process (Engel, 2013). Understanding the principal's role in teacher hiring may be even more important today as roughly 87 percent of public school principals in 2015-16 reported having strong influence over hiring decisions (U.S. Department of Education, n.d.), which is higher than that in previous decades (Engel, Cannata, & Curran, 2018), and they must navigate teacher labor markets with often increasingly pronounced teacher shortages (e.g., Sutchter, Darling-Hammond, & Carver-Thomas, 2016).

Research has substantially focused on the national shortage of math, science, language, bilingual education, reading specialist, and special education teachers and this shortage is disproportionately present in low-income schools (e.g., Cowan, Goldhaber, Hayes, & Theobald, 2016; U.S. Department of Education, 2017). Thus far, teacher labor market research has mainly investigated differential subject area teacher patterns in terms of supply side of the teacher labor market equation: production (e.g., Cowan et al., 2016; Ingersoll & Perda, 2012) and retention (e.g., Curtis, 2012; Ingersoll & May, 2012). The field has not substantially focused on demand and has yet to qualitatively capture teachers' experiences of and responses to hiring processes (e.g., Engel, 2013; Jacob, 2007). Such research would illuminate the greater issues of supply and demand in teacher labor markets.

Despite a general dearth of teacher hiring research, prior studies demonstrate that certain hiring structures and processes can be instrumental to finding appropriate teacher matches for a

school. Studies show that certain hiring practices can help administrators and teacher candidates determine whether the candidate would match the school and position (e.g., Liu & Johnson, 2006; Liu, Rosenstein, Swan, & Khalil, 2008). When the candidate matches the school and position well, the teacher is more likely to stay at the same school and be more productive (e.g., Daly et al., 2008; Donaldson & Johnson, 2010). Research since Liu and colleagues' (2008) study has yet to qualitatively examine whether practices including or outside of early hiring efforts and realistic job previews are explicitly associated with this type of match.

This sense of match is consistent with person-environment (P-E) fit, which measures the degree to which an employee and his or her workplace environment characteristics align (Kristof, 1996). As recently applied to education, some elements of P-E fit have predicted teacher commitment to the school (Chan, Lau, Nie, Lim, & Hogan, 2008), early career teacher commitment and professional intent (Ellis, Skidmore, & Combs, 2017; Pogodzinski, Youngs, & Frank, 2013), and teacher mobility (Player, Youngs, Perrone, & Grogan, 2017). The general body of K-12 research around hiring processes and subsequent fit uses quantitative methods with survey data (e.g., Ellis et al., 2017; Liu & Johnson, 2006). Research has also shown that the teacher hiring labor pool is highly-localized (Boyd, Lankford, Loeb, & Wyckoff, 2005; Engel & Cannata, 2015); the interaction of a highly-localized labor pool and situated characteristics of particular workplace environments would point to the need for deeper, contextualized analysis of the interrelationships among factors that constitute P-E fit, taking into account specific local conditions. Qualitative inquiry seems most appropriate for such an examination.

In this paper, we present findings from a pilot study that employs qualitative methods to provide a richer understanding of the several critical issues of hiring and fit noted above at the high school level. These issues include: (a) principal searches for fit in teachers (including

strategies such as information-rich hiring and team hiring), (b) corresponding teacher searches for fit, (c) subsequent fit, and (d) any variation in (a) through (c) according to subject area. This comparative case study is set in two high schools with divergent performance, socioeconomic, and racial/ethnic characteristics and uniquely captures perspectives and experiences of *both* administrators and teachers. The schools are located less than five miles apart within a single district inside of a diverse mid-sized mid-Atlantic city in the United States (U.S.). This allows us to determine how demographically different schools navigate the same district hiring protocol and labor pool, which as noted earlier, is typically highly localized.

In what follows, we review literature on subject-specific hiring and then fit, with particular focus on principal searches for candidate fit in the hiring process, and teacher searches for fit in the hiring process. We then present our research questions, data, and analytic approaches before presenting our findings. We conclude with a discussion of what implications our findings may have for practice, policy, and research.

Literature Review

The term *hiring* used throughout this study encompasses the overarching hiring process, including recruitment, screening, selection, and job offer, a definition of hiring borrowed from Kogan, Wolff, and Russell (1995) and utilized by Rutledge, Harris, Thompson, and Ingle (2008). A review of the teacher hiring literature reveals little research activity this decade around hiring processes taking place at the school, principal, or teacher level. What is known at the school level is also limited to large urban districts, namely Chicago Public Schools (Engel, 2013; Engel & Curran, 2016; Engel & Finch, 2015), New York City Public Schools (DeArmond et al., 2012), and an unnamed large urban East Coast district (Simon et al., 2015a, 2015b). In fact, Jabbar (2018), which studied principal hiring preferences in the generally deregulated and privatized

New Orleans, was the only major peer-reviewed teacher hiring study published before 2018 to utilize data collected after 2010. While this decade's site-based hiring research has created a better understanding of hiring in large urban K-8 school districts, hiring strategies in traditional districts, at the high school level, or in mid-sized city, small city, and suburban contexts in which the majority of students, teachers, and schools reside has yet to be examined in the modern teacher labor market.¹

Subject Area Hiring

As with hiring overall, little is known about how hiring may vary by teacher subject area. This may be critical to schools as the widespread need for qualified math and science teachers has persisted since the mid-2000s with schools serving low-income populations disproportionately experiencing this demand (U.S. Department of Education, 2017). Meanwhile, needs for English and social studies teachers are low in comparison (U.S. Department of Education, 2017). One could assume that qualified teachers in shortage subject areas, for instance science and math, where there is also higher turnover (e.g., Ingersoll & May, 2012), would have more choice than teachers in non-shortage subject areas. Research demonstrates that teaching candidates in certain fields, especially science and math, have better odds of securing a teaching job than their peers in other fields (e.g., Goldhaber, Krieg, Theobald, & Brown, 2014), but it is still unknown *how* these candidates respond to such choice in their job searches or if schools use different recruitment strategies to attract these subject area teachers.

In fact, extant site-based research on teacher hiring has not focused on teacher subject area or grade taught. Teacher job descriptions can vary considerably by school type, subject area, and grade; teaching kindergarten in a high-poverty school might be very different than teaching advanced 12th grade calculus in a low-poverty setting. Thus, principals display different hiring

preferences according to school (e.g., elementary, secondary) and poverty levels (Ingle et al., 2011). While much quantitative research has unearthed labor market trends by subject area and school level (e.g., Goldhaber et al., 2016; Ingersoll & Perda, 2012), it remains unclear as to how teachers approach the hiring process by grade and subject area.

Fit in Hiring

One constant appears in the hiring research across contexts: Ultimately, when principals look for certain traits in teachers, they seem to be looking for how well the prospective teacher will fit the position, respective teacher team, and school. Senses of *fit* and *match* described in teacher hiring research correspond with fit in industrial organizational (I-O) psychology. I-O psychology's model of person-environment (P-E) fit measures the match between an employee and the environmental characteristics of his or her workplace (Kristof, 1996). Fit has been widely studied in other professions (e.g., Hoffman & Woehr, 2006; Kristof-Brown, Zimmerman, & Johnson, 2005), but K-12 fit research is largely in its early stages.

Three domains of P-E fit have been applied to education research in the U.S. As applied to teachers by Harris and Rutledge (2010), *person-job* (P-J) *fit* measures how well a teacher is equipped to carry out his or her job successfully. *Person-group* (P-G) *fit* refers to how compatible the teacher is with subgroups of faculty within the school (Harris & Rutledge, 2010). Lastly, *person-organization* (P-O) *fit* measures how well a teacher's values and preferences match the values and culture of the school (Harris & Rutledge, 2010). Research demonstrates that measures of P-J and P-O fit are strongly associated with teacher job satisfaction (e.g., Bogler & Nir, 2015; Ellis et al., 2017), novice teacher intent to remain in teaching (e.g., Pogodzinski et al., 2013), and actual teacher turnover rates (Player et al., 2017); the better the fit with the faculty, job, or school, the higher the teacher's level of commitment and intent to remain. This is

consistent with research in other professions (e.g., Kristof-Brown, Zimmerman, & Johnson, 2005; Silverthorne, 2004).

Principal searches for fit. The research on principal hiring preferences indicates that principals search for the above three forms of P-E fit in teacher candidates. Harris, Rutledge, Ingle, and Thompson (2010), Rutledge and colleagues (2008), and Ingle, Rutledge, and Bishop's (2011) series of studies of school principals with hiring autonomy in a mid-size Florida school district found that what principals look for varies by the (a) demands of the position, (b) dynamics of the specific departments returning teachers, and (c) culture of the school. The studies also note that these preferences are indicative of P-J fit, P-G fit, and P-O fit, respectively. Subsequent research, such as Cranston's (2012) study of eight Catholic school principals in Manitoba, Canada, found underlying desire to find candidates who fit across all three P-E domains (Cranston, 2012) while others note that principals make frequent mention to a general form of "fit." In the latter studies, "fit" consistently refers to things such as ability, enthusiasm, and mission congruent with that of the school (e.g., DeArmond et al., 2012; Engel, 2013; Jabbar, 2018). Findings from more recent quantitative studies of hiring, such as Cohen-Vogel, Little, and Fierro's (2017) study using a sample of 173 Florida principals decided by inclusion criteria and a stratified sample of 164 Texas principals, have found a preference for hiring teachers with high student standardized test scores and using achievement data for subsequent teaching responsibilities. Such findings align with preference for hiring and assignment with attention to P-J fit (the match between a teacher and his or her teaching position).

Principal searches for fit seem to explain why preferences for teaching candidates vary by school level (e.g., elementary, secondary), achievement, and poverty rate. Ingle and colleagues' (2011) study found that high school principals were more concerned with a teacher's subject area

knowledge and willingness to coach or lead a club than their elementary school counterparts. Similarly, Engel (2013) found that principals in low-performing and high-performing schools within Chicago Public Schools (CPS) expressed different hiring preferences: principals in low-performing schools concentrated more on teachers' classroom management and ability to produce good test scores. Given the clear and logical importance of fit to principals in hiring, it seems natural for a principal to involve other school-level personnel for additional perspectives in hiring, as seen in other studies. This may be even more pertinent at the high school level where out-of-subject area content knowledge is more difficult to evaluate (e.g., Lochmiller, 2016; Stein & Nelson, 2003) and faculty may be more compartmentalized (e.g., Klar, 2012; Louis, Leithwood, Wahlstrom, & Anderson, 2010).

Using hiring teams to determine fit. Coinciding with increased principal autonomy from 1987 to 2018 at the national level in urban and non-urban schools alike (Engel et al., 2018, U.S. Department of Education, n.d.), U.S. teachers have also reported having more influence over who gets hired over the past two decades (Cannata, Engel, Nguyen, & Curran, 2017). Cannata and colleagues' (2017) examination of the nationally-representative Schools and Staffing Survey (SASS) found that department leaders were significantly more likely to report having an influence on who is hired. While more localized studies reflect these findings, the influence seen varies by school level. Rutledge and colleagues (2008) first found evidence of principals using hiring teams to better determine teaching candidates' potential P-G, P-J, and P-O fits. Engel and Finch (2015) found evidence of principal-teacher collaboration taking place in their examination of 31 CPS schools' hiring practices during the spring of 2006. The CPS high school principals were more likely to collaborate with teachers than their elementary peers as they involved and relied upon teachers with subject area knowledge to gauge content expertise.

In fact, CPS high school principals were three times more likely to involve personnel with subject area knowledge in their interviews than elementary principals. The high school principals were also more likely to involve teachers in the actual decision-making process and even make hiring recommendations. DeArmond and colleagues (2012) and Simon and colleagues' (2015a) reports of hiring in high-performing, high-poverty middle schools in large urban districts also revealed instances of principals utilizing hiring teams to better assess teacher “fit.”

Information-rich interviewing and fit. One established way in which principals, schools, and districts may improve their odds of finding high levels of fit in new teachers is to begin hiring in early spring. This was first demonstrated when Liu and Johnson (2006) used survey data from a two-staged stratified cluster sample of 486 first and second-year teachers in California, Florida, Massachusetts, and Michigan, finding that interview timing and selection were closely related to *information-rich* and *information-poor* interviewing. The authors described the information-rich interview as a two-way exchange during the interview process that permits teacher candidates to experience the school's functioning: the teacher learns about key aspects of the school—such as environment, culture, peers, and students—while the interviewers gain a better sense of how the candidate may fit the job and school. Information-rich interviewing is closely related to teachers finding good P-O fit with their schools (Ellis et al., 2017; Liu & Johnson, 2006; Liu et al., 2008). This match is meaningful, as teachers who match well with the job and school are more likely to exhibit higher job satisfaction, productivity, and retention (Daly et al., 2008; DeArmond et al., 2012; Donaldson & Johnson, 2010; Ellis et al., 2017; Liu & Johnson, 2006; Liu et al., 2008; Loeb, Kalogrides, & Béteille, 2012).

Alternatively, information-poor interviews are predominantly one-way exchanges during which the teacher candidate gains little insight into how he or she would fit into the school (Liu

& Johnson, 2006). Many teachers who have information-poor hiring experiences find that they are not well-matched to their jobs, schools, and/or colleagues. These poorly-matched teachers often exhibit dissatisfaction and a desire to leave the school (Ellis et al., 2017; Liu & Johnson, 2006). It is unknown, however, whether teachers of different subject areas are hired at different times or have different levels of information-rich interviews as research has yet to examine whether such experiences vary by subject taught.

Teacher Searches for Fit

Outside of the research on information-rich hiring, it is largely unknown how teachers may search for fit in a position and school. Most teacher preferences are generally inferred through teacher labor market trends, which tend to be highly localized, and teachers generally prefer to sort into and teach in suburban, low-poverty, low-minority, and high-performing schools (e.g., Boyd, Lankford, Loeb, & Wyckoff, 2013). Rural and urban schools often hire more first-year teachers, and as they gain experience, these same teachers often move to suburban schools (Borman & Dowling, 2008; Miller, 2012). It is also usually the teachers with better qualifications who sort themselves into suburban schools and districts (Boyd et al., 2002; Goldhaber, Lavery, & Theobald, 2015). Teacher preferences for working in geographically, ethnically, and culturally close or familiar sites seem to drive this movement (Boyd et al., 2005; Cannata, 2010; Reiningger, 2012). Outside of the information-rich interview, research has yet to qualitatively look at how teachers evaluate potential fit of a job and/or school.

If anything, the literature generally shows that teachers go into an interview with little understanding of how they may fit. For instance, Cannata (2010) found that it is common for elementary teachers to base application and job acceptance decisions on knowledge and reputations passed on by people with little to no association with the schools. Additionally,

teachers often apply to schools because of a district's reputation over that of a school itself (Cannata, 2010). It is unknown, however, whether this differs in any way by subject area.

Although subject area hiring has received some research attention, fit appears as the most relevant aspect of hiring as principals display different hiring preferences according to school (e.g., elementary, secondary) and poverty levels (Ingle et al., 2011). The body of K-12 hiring and fit research is quite thin, but the following are generally established: (a) principals look for dimensions of fit in candidates (e.g., Ingle et al., 2011), (b) principals sometimes use team hiring to increase chances of fit (e.g., Ingle et al., 2011), (c) information-rich hiring and timing are strongly associated with fit (e.g., Ellis et al., 2017; Liu & Johnson, 2006), and (d) fit strongly predicts key teacher attitudes and behaviors, such as job satisfaction (e.g., Bogler & Nir, 2015; Ellis et al., 2017), commitment (e.g., Chan et al., 2008; Pogodzinski et al., 2013), intent to remain at the same school (Pogodzinski et al., 2013), and mobility (Player et al., 2017).

This comparative case study extends the literature on these generally established findings by offering valuable insights into the nature of these processes and underlying relationships by addressing the following questions:

Research Questions

1. How do principals search for fit in the teacher hiring process in two high schools in a diverse district, if at all, and how does this vary by teacher subject area?
2. How do teachers search for fit in the hiring process in two high schools in a diverse district, if at all, and how does this vary by teacher subject area?
3. How do searches for fit in two high schools in a diverse district correspond with job satisfaction and fit?

Methods

Data

This comparative case study of high school teacher hiring practices and fit employs semi-structured interviews in two socioeconomically, academically, and ethnically divergent schools in one district as primary data. Data collection took place between July 2016 and January 2017. Interviews were conducted with four newly-hired teachers at each school and each teacher participant's department chair (with one exception) and principal. While interviews were scheduled for 30 minutes, actual interview duration varied from 22 to 82 minutes (see Table 1). To ensure confidentiality, pseudonyms replace actual district, school, and subject names.

[INSERT TABLE 1 HERE]

School sites and access. We first identified districts in or just outside of large to mid-sized mid-Atlantic cities that had more than five high schools and possessed a wide range of student achievement scores and student demographics. Part of our rationale for choosing a large to mid-sized city district was to inform hiring in comparable contexts because so few studies have looked at hiring outside of large urban districts. We gained approval from one of our targeted districts, Carlyle Area School District (CASD), and contacted principals through the district to participate in the spring and summer of 2016. We were able to secure access to two schools with different characteristics but operating under the same district policies and within the same teacher labor market. There is no collective bargaining agreement in the district and CASD teacher candidates must be eligible for licensure to receive a contract offer.

While the two schools in this study stand less than five miles apart, they have starkly different demographics and facilities (see Table 2). Each school serves over 1,500 students and employs around 150 faculty members. Armstrong High School is largely white, affluent, and high-performing, but less so than several other high schools in the district. The school was built

in the 21st century and is visibly more modern than Barnes High School's campus. Barnes, a public magnet high school, has a more diverse student body and does not have high aggregate test scores. Barnes' diversity is clearly evidenced in its ethnic, socioeconomic, and achievement data as well as the more than 30 native languages spoken by students from over 50 foreign countries. Some students resided in refugee camps prior to their initial year of enrollment at Barnes.

[INSERT TABLES 2 AND 3 HERE]

Teacher interview sample. We purposely selected a sample of teachers from varying subject areas to address our research interests in differences by teaching field (Patton, 1990). We also included both new and veteran teachers to gain perspective on how hiring may differ by level of experience in addition to subject area. Seven of the eight teacher participants had interviews with their respective schools and were hired in the spring or summer of 2016² (see Table 3 for teacher backgrounds and hiring timeline). Our interviews with these teachers took place in fall of 2016 and spring of 2017.

It is important to note that this study focuses description on the *typical* hiring interview structure at each school. Seven of the teacher participants experienced an interview with a team of three to four people during the spring or summer hiring season. The researchers did not have permission to sit in on the actual teacher interviews. All study participants gave congruent accounts regarding their schools' hiring structures and processes.

Principal interview sample. Each school's principal was interviewed twice, once during the summer of 2016 and once during the school year. Dr. Apps is a female, in her second year as principal of Armstrong High School, and has nearly 15 years of experience as a principal. Dr. Bourque is a male principal in his fifth year leading Barnes High School and also has roughly 15

years of principal experience. Both principals are white and have doctoral degrees in educational leadership, over 20 years of experience working in K-12 schools, and more than 10 years working in CASD.

Department chair sample. Each teacher participant's department chair was interviewed once in January 2017, with the exception of the English department chair at Armstrong High School who did not respond to requests to participate in the study. The department chair interviews were intended to provide insight into *how* collaboration in hiring may take place and levels of newly-hired teacher fit in addition to serving as a form of data triangulation with principal and teacher participant responses. We interviewed six department chairs, each of whom had over five years of teaching experience.³

Analytic Strategy

Interviews were semi-structured according to role, with open-ended questions intended to elicit close description of the hiring process and/or participants' experiences of hiring/recruitment. Interviews with multiple district and school members also served as a form of data triangulation to establish credibility as suggested by Van Maanen (1983). Participants were aware that they could opt out of the study at any time.

Interviews were transcribed as soon as possible after recording. All transcripts were anonymized and read multiple times prior to coding. We analyzed data through successive rounds of deductive and inductive coding, refining the code list with each round. This iterative, thematic analysis aimed to establish a close understanding of organizational processes and participants' accounts of experiences related to the research questions. Deductive codes were derived from the research questions, including such codes as: *principal autonomy, hiring timing, teacher traits sought, interview structure, information-rich/poor hiring, collaboration in hiring,*

teacher preferences, knowledge of school, teaching experience, adjustments, challenges, intent to return, and teacher fit (P-J, P-G, P-O). Example of inductive codes include: *competition for candidates, sources of support, and teaching assignment.*

Researchers were attentive to descriptive and inferential validity in the collection and analysis of data, as well as in writing up. We acknowledge that validity is a contested term in qualitative inquiry. Maxwell's (2012) characterizes qualitative validity as inherently about the kinds of understanding that a particular inquiry aims to elicit. He goes on to distinguish between descriptive validity and interpretive validity. Descriptive validity serves as "reportage" (after Runciman, 1983, as quoted in Maxwell, 2012, p. 135), "activities seen as physical and behavioral events". To address threats to descriptive validity, initial familiarity with the district and case study schools was obtained through one highly involved and established member of the community who works closely with schools, principals, and teachers in the district. Further conversations with this individual and other teachers and alumni of the district took place before approaching principals for permission to conduct research at individual schools. At the start of each interview, participants were encouraged to be honest to better ensure subject honesty (Lincoln & Guba, 1985). Transcripts were carefully checked against recorded audio, and member checks of transcripts were conducted with participants to confirm accuracy.

Interpretive validity, according to Maxwell (2012), refers to inferences made by the researcher of the "participant's perspective"—participant's "intention, cognition, affect, belief, evaluation" (pp. 137-138). To counter potential threats to interpretive validity, an independent researcher coded one interview transcript using a near-final version of the code list; we then compared our coding with the independent researcher and resolved differences by refining and clarifying the code list. We also discussed interpretations in conversation with one another and

through seminar conversations with colleagues and research presentations at professional conferences.

Findings

The process of hiring, as previously mentioned, encompasses the actions of recruiting/applying, screening, selection, and job offer. It is a complex undertaking involving several components, system levels, and actors. Each aspect of this overall process deserves an in-depth examination, but we limit our findings to the issues directly addressed by the research questions: differences in hiring approaches by principal and teacher according to subject area, principal searches for fit in teacher candidates, teacher searches for fit in schools, and relationships among these searches for fit with indicators of early subsequent fit. While some of the following findings may seem expected given the research questions and practitioners' experiences, they offer deeper understanding of processes that may explain other hiring studies' findings and have important implications for hiring research, policy, and practice.

RQ1: How do principals search for fit in the teacher hiring process and how does this vary by teacher subject area?

Both principals used their hiring autonomy to look for candidates who best "fit" the respective schools, positions, and departments. As noted earlier, the principals have substantial control over whom they interview and recommend for hiring to the district. This autonomy comes with a high sense of responsibility and importance placed on hiring that the principals strongly conveyed. For example, Dr. Apps, the Armstrong principal, highlights the centrality of hiring to her role as principal:

It's the most important thing I do as a principal. It is, I believe, the most important job any principal has is hiring. I am the HR director for this building and we want our

students to have the best education and they won't have it if they don't have the best teachers.

Barnes High School's principal, Dr. Bourque, also made it clear that hiring the best teachers for Barnes is critical and that, in the end, the weight of the responsibility rests on his shoulders. As school-level human resources directors, Dr. Apps and Dr. Bourque take on the responsibility of screening applications, including calling references and social media profiles in the case of Dr. Bourque, themselves. However, the principals' screening processes were not informed by research, despite their master's and doctoral training, and this was a constant throughout all phases of the hiring process.

It should be noted that principals based their screening decisions primarily on resumes, looking for signals of teaching quality, ambition, dedication to the profession, and potential matches for the schools (e.g., technology use in Armstrong, work with diverse student bodies in Barnes). The principals only used references to check for warning signs around teachers' candidacies, with Dr. Bourque conducting calls at the end of the application screening process and Dr. Apps only contacting references as a check after actually selecting a candidate. Both principals found letters of recommendation to be poor sources of information as personal relationships tend to influence these letters and principals in other districts sometimes offer support for a problematic teacher in hopes that the teacher will find employment in another school. These were the only three sources of materials available to the principals in screening as the district uses a standard online application to apply to work at any school in the district and do not require submit writing examples or teaching portfolios. Thus, the following descriptions of searches for fit generally focus on what principals looked for in candidates during the interview process.

Criteria for fit. Drs. Apps and Bourque reported a variety of attributes they look for in a candidate. Overall, both principals paid most attention to the same three core characteristics of fit in teaching candidates: good teachers who are, in no particular order, (a) appropriate fits for their schools, (b) collaborative, and (c) good fits for the department with the open position.

Dr. Apps' top criteria are that the teacher first demonstrates a love for children and second understands "21st century teaching and learning" which she defines as:

A lot of integration of technology... integrating it because it truly is the best tool for a particular lesson. Um, and with 21st century teaching, it's not just the integration of technology, it's the collaboration I talked about, getting kids to work together, those types of things as well as being collaborative, enthusiastic, and lifelong learners.

This 21st century teaching and learning description fits that of Armstrong's focus on academic rigor and innovation as well as modern facilities. Attributed to its recent creation and high number of young teachers, the vast majority of the teachers at Armstrong are millennials. Apps describes her overall faculty as energetic, hard-working, and innovative.

Dr. Bourque appears to look for many of the same fundamental elements in a teacher candidate at Barnes High School, though the words he uses differ from those of Dr. Apps. He is first concerned with the teacher candidate's ability to relate to the children he or she will be teaching. He then looks for previous success as either a student teacher or teacher, "how well they are going to play in the sandbox" (e.g., team player, collaborative), and ability to work through challenges without becoming burdensome to administration. He also strongly prefers candidates have the ability and desire to teach to a wide range of students (e.g., high-achieving, low-achieving, English as a second language (ESL), former refugee). Dr. Bourque secondarily lists attributes such as good communication with parents, depth of knowledge, enthusiasm, and

maturity, noting certification across multiple subjects as advantageous. He explicitly states that educational background does not matter to him. Dr. Bourque, like Dr. Apps, also likes having a mix of teaching experience levels across his faculty and welcomes beginning teachers at his school. Both principals, though, felt that fit varies by school as exemplified by Dr. Apps' statement that, "I have found, too, that every school is different and you have to have the perfect fit for your learning community as well."

These comments reflect distinct attributes that align with each school's mission and student population: Dr. Apps prioritizes using and developing 21st century teaching and learning abilities at Armstrong High School and Dr. Bourque is inclined more towards candidates with the ability and willingness to teach a diverse set of students. In trying to find a good fit for the respective department (e.g., English, math), the principals looked to others for help in the actual interview. The schools' missions reflect these priorities. Collaboration and being a good team player were repeatedly listed as essential in both schools.

Team approach to finding fit. Dr. Apps and Dr. Bourque have substantial autonomy in hiring techniques and both heavily involve others in a team approach to interviewing because they feel it is "best practice"; CASD does not mandate a team approach. The principals emphasize having strong trust in his or her hiring team members and believe that interview team hiring guards against potential mistakes. Dr. Bourque states:

I never do it by myself, I've been burned twice where I thought the person was fantastic, and it was a nightmare. I often say, it takes 30 minutes to hire somebody, and it takes three years to get them out if it turns out it's the wrong one.

Interview teams at both schools consist of the principal, assistant principal, subject area department chair, and sometimes a district specialist. All hiring team members receive the

candidates' resumes prior to the interviews and help create a list of appropriate interview questions for the specific positions. Team members take turns asking each candidate prewritten questions during the actual interview. While interview questions are not determined by CASD, each candidate must receive the same set of questions as other applicants for the same position. Department chairs create questions that address the responsibilities for each specific position and ask them at the end of the interview. After interviewing each candidate for a position, hiring team members at both Armstrong and Barnes rank their first, second, and third choices for the position and tally votes. The hiring teams then discuss the rationale for their votes.

Principals defer to the department chair for his or her opinion on the whether the teacher is a good P-J match for the position and P-G fit for the department when the hiring teams do not reach consensus. Dr. Bourque speaks to the ability to assess P-J fit by saying, "They know content. They know methodology. They can pick through those questions during the interview process." Department chairs corroborated this report partly by describing their interview roles: determine suitability for the position by asking critical subject-specific questions and provide information about the position and course load. However, the principals noted an additional reason for involving the department chairs: determining P-G fit.

While principals explained what they look for in a candidate in terms of P-O and P-J fit, they also stated the importance of the candidate being a good fit for his or her department (P-G fit). Dr. Apps and Dr. Bourque value the department chair's role in the interview and selection process and importantly defer to the department leader's opinion and insights in tight deliberations. Dr. Bourque additionally refers to the importance of a new hire being a good match for the respective department and that he has a high degree of trust in his department chairs' judgment, as did Dr. Apps. Dr. Bourque, who succinctly states that, "It really needs to be

someone who's going to fit in well with their departments, and they know their departments, and they know their departments better than anybody else." However, it should be noted that both principals maintain ultimate veto power with their autonomy and have reopened job searches or even filled positions with long-term substitutes when hiring teams did not feel any of the interviewees were good choices.

Shortage area subject positions. Two subject-related themes emerged from the principal interviews: (1) filling the shortage area subject positions was a priority and (2) the principals were more conscious of how they approached shortage subject area teacher candidates and attracted them to their schools. Both principals clearly feel a need to prioritize hiring in certain subject areas over others and that there is strong competition among area schools and districts to attract teachers certified in these subjects. The urgency to fill positions in science, math, and certain specialty subjects, was reiterated throughout the interviews. Armstrong principal Dr. Apps emphasizes:

Science is hard. Math is hard. We're all vultures. When it comes to a math candidate, it's hard because there just aren't many out there.

Conversely and predictably, the principals reported lower levels of urgency to find and hire teachers in other areas. Dr. Bourque, in particular, notes:

I don't have to recruit for English or social studies. All I've got to do is call the central office, can you guys go ahead and post this position? Womp. Within a day or two I've got all the candidates I need.

Dr. Bourque listed other subject area positions yielding high numbers of applicants, namely art, English, music, physical education, social studies, and special education, as relatively easy to fill.

Accordingly, each principal takes some extra steps to attract candidates in the hard-to-fill positions.

Identifying and attracting shortage subject area teacher candidates is of high importance to both principals. In Dr. Apps' words, "sometimes you need to form relationships" and both principals report building relationships with candidates as important to filling shortage area positions.

Information-rich hiring by subject. The two principals emphasize the importance of an information-rich interview for candidates in hard-to-fill positions as Dr. Apps illustrates:

Yeah, because of that, you really want the teacher to want you because that teacher is going to get offers from many schools. So you have to then sell your school and your program. You know, so, we'll share data, walk them around, you know, things like that.

It should be noted that Dr. Apps has the department chair give each candidate a walking tour of the modern and impressive Armstrong High School facilities. Dr. Bourque, though, generally only offers a tour of the older Barnes High School campus if the teaching candidate requests it. However, in line with attracting the teacher to the school, he may offer a more information-rich interview to teachers in shortage areas:

The challenge, the selling point, the challenge comes when this person is interviewing at three different schools, and they're good, and so all three schools offer them. How do I convince that person that they should come to Barnes instead of Dumoulin, or Tanger, or Cole, or Armstrong, or wherever else, or a different school district? That's when I think trying to get them on campus, get them around, show them how we operate, have them talk to other teachers that are here; that's how we were able to make sure we get the ones we want.

Job offer and timing. Dr. Apps and Dr. Bourque contact the top candidate soon after the hiring team's decision with Dr. Bourque contacting the top candidate *immediately* after the decision has been made. He makes an offer and, emphasized especially for teachers in shortage areas, "sells" the school to them, noting that, "[w]e rarely, rarely have a problem with a teacher accepting a job at another school once I get a hold of them," as the Math department chair and several teachers affirmed, and gives them a short time window to make a decision.

The thing of it is, you give them a day or two to think about it, but that's about it, because if they decide they want to go somewhere else, I need to get the next good candidate.

"Can I have a couple weeks to think about it?" "No, I can give you till Friday." I'm not trying to be mean about it, but it's a business. If I wait two weeks, my number two, three, and four candidates could get scooped up by someone else and now I got nothing.

RQ2: How do teachers search for fit and how does this vary by teacher subject area?

Teachers did not indicate consciously searching for P-O or P-G fit the same way that the principals did. Teachers generally focused their initial searches on geography and student demographics (e.g., diversity, achievement) and learned about P-J fit (e.g., subject material, workload) during the interviews.

Geographic search. The previously differential application rates by subject area are clearly reflected in willingness to apply to and work in schools outside of the teachers' preferences (e.g., location, school/grade level, curricula, student achievement, student demographics). The English and Social Studies early career teachers (ECTs) were the least bound to their preferences during the application process. These two applied to the most schools and their more extensive geographic searches coincide with what Dr. Apps and Dr. Bourque stated concerning low demand for teachers in those subjects. Both humanities teachers were

aware of this and willing to teach at either the middle or high school level. The Social Studies teacher indicated understanding this subject-specific challenge: “I am from the area, did not want to really leave the area, but I knew it would probably be hard to find a history teaching job, because you basically stay in it until you die, so there’s that.”

Search for fit in the interview. All teachers expressed an intent to give the interview teams the impression that they had strong potential P-O and P-J fit with the school with the exception of the veteran Science teacher. For instance, the Art and English teachers at Armstrong both stated that they felt a need to, “demonstrate knowledge and passion for teaching” and the ability to interact with parents in their interviews at Armstrong High School. Similarly, several of the Barnes teachers decided to speak more to their abilities to differentiate, teach a diverse population, and, in the case of the ESL and special education (SPED) teachers, even create programs targeted at improving education for specific groups of students at the school. These responses were admittedly intended to signal P-O and P-J fit to the interviewers. However, only the veteran Science teacher asked questions aimed at assessing her own level of fit with the school.

Information-rich hiring. School and interview timing seemed to determine levels of information-rich interviews. Consistent with Dr. Apps’ report, all of the teachers at Armstrong received a walking tour of the school, regardless of whether or not the school was in session. Participants noted this as appreciated, something that they did not experience in other interviews, and an attractive element of the interview. The Art teacher, in particular, found the facilities in her prospective classroom to be excellent for teaching her subject, saying,

That was a definitely a big part of me taking this job. My classroom is enormous and beautiful. I have windows. Having not seen the classrooms I would be teaching in at the other two schools this was a clear standout.

The teachers at Armstrong also reported that the teams gave them important information about the school and the Science teacher felt that their line of questions showed that

They are really interested in what's going on in the classroom, not necessarily just my ... I think they were trying to get a feel for my style and my ... I thought that was really good. It was one of the better interviews I've been in.

The teachers at Barnes did not experience interviews as rich as their counterparts at Armstrong as none of the teachers reported being offered a walkthrough of the school. However, the ESL, Social Studies, and SPED teachers all had been on the campus before (see Table 4, Column B). The Math teacher actually remarked that “I wish they would have offered [a tour] to me then, or at least offered to, like, have me walk around the school or meet some teachers because I would have liked to do that before I took the job.” She did not have time to come back for another visit because of constraints with student teaching responsibilities and the amount of time she had to accept or reject the job offer.

A lack of information-rich interviews did not mean that the teachers were lacking an understanding of the school and position. Six of the eight teachers were well aware of the school in which he or she secured employment along with its overall reputation prior to applying. Much of this knowledge was attained through who the candidates knew (see Table 4) and three of the eight felt their social and professional networks were instrumental in obtaining their jobs. Several candidates also felt that this connection or familiarity helped them in the interview by means of useful information applied to interview answers and/or a sense of comfort during exchanges with

the hiring team members. Only the Math teacher and English teacher, who also applied to one of the widest ranges of schools, did not note having two or less degrees of separation from the school.

[INSERT TABLE 4 HERE]

Job offer. The actual time between the actual interview and job offer varied from teacher to teacher (see Table 3). However, the timing of a job offer seemed to matter for the in demand first-year Math teacher, forcing her to make a decision prior to exploring other options and levels of fit. The Math teacher had already turned down an offer guaranteeing work in the district but in a school of the district's choosing. She had also garnered a high level of interest from other schools and districts relative to her first-year peers. The Math teacher interviewed at Barnes on a Thursday and had an interview scheduled at another high school the next week. However, Dr. Bourque offered her a position 30 minutes after the interview and gave her until Monday to decide. The Math teacher had "a very difficult decision" to make as she was waiting to hear from schools she was scheduled to interview with at another Carlyle district high school the next week and was interested in employment in bordering Zane County as well as. It should be noted that several teachers considered the bordering city district but the city's hiring process starts one to two months after Carlyle's.

RQ3: How do searches for fit correspond with job satisfaction and fit?

The researchers acknowledge that definitive measures of fit may be somewhat difficult to detect before February of the teachers' first years in their new schools. P-O fit may be most difficult to determine due to the schools' sizes. Furthermore, fit for teachers may change over time, similar to what was seen in job satisfaction from fall to spring among the beginning teachers (see Table 4 for final levels of job satisfaction and intent to return). However, certain

fundamental measures of fit did emerge in our data analyses. Following are our findings regarding job satisfaction and intent to return to an organization, both associated with measures of P-E fit, and basic levels of person-organization (P-O), person-group (P-G), and person-job (P-J) fit for the teacher participants in this study.

Job Satisfaction and Intent to Return

Job satisfaction and intent to return to the same school the following year, often associated with measures of fit (e.g., Kristof-Brown et al., 2005; Verqueer & Schmitt, 1991), were generally positive for all eight newly-hired teachers in this study (see Table 4). The first-year teachers expressed higher levels of satisfaction in the second round of interviews than they did in October as they had further acclimated to their positions and environments. All participant accounts of satisfaction and intent to stay at the school coincide with positive adjustments the teachers made throughout the year. These are attributable to support from mentors, newly-hired teachers, collaborating teachers, department teams, administrators, induction, and significant others. Each teacher expressed intent to teach in the same school the following year and most planned to remain long-term. The two veteran teachers stated a clear desire to stay at their respective new schools until retirement.

P-O fit. P-O fit measures the congruence among the employee's values, goals, and preferences and those of the organization. Thus, it is critical to outline the schools' missions to understand the level of congruence between teachers and schools in this study.

Armstrong High School and Barnes High School are dedicated to providing high quality educations to their students. The other aspects of the two school missions diverge in efforts to reach their shared overall goal of providing their students with good educations inside of very

different contexts. The Armstrong interview subjects, similar to their principal, describe the school as concentrated on academic rigor and “21st century teaching and learning.”

Each Armstrong teacher participant expressed a commitment and preference for teaching in a learning-oriented environment, though the ECTs verbally note a common personal mission that they felt they could not attain at their school. Due to controversial events in the community and the political climate in the area, country, and school along with pressure from parents, teachers were discouraged from engaging in topics that touched on race. The Art, Chorus, and English teacher want to incorporate issues of social justice into their curricula and classroom discussions. These teachers expressed hesitancy to engage students in discussions or materials focused on various issues of social justice in their first year and felt discouraged from doing so. The English teacher consciously questioned whether some of her social justice orientation was misaligned with the views of the majority of her students. The four Armstrong teacher participants did, however, all note that they would prefer to continue to teach at a school like Armstrong that is academically-oriented, though the English teacher also questioned whether she would do more good serving a generally less-privileged student population. Again, these same three intended to stay at Barnes for the foreseeable future.

Meanwhile, all four Barnes teachers expressed a preference for teaching in a school committed to educating students in a diverse and inclusive environment like Barnes. This became clear throughout the two rounds of interviews. Even the ESL teacher, who said she might prefer teaching elementary students, said that she would want to teach in an elementary school with a similarly strong commitment to diversity and a diverse student body.

P-G fit. P-G fit refers to the relationship between an employee and his or her immediate workgroup. The immediate workgroup of interest to our study is the teacher’s department,

though P-G fit can include collaborating teachers, peers in other departments, etc. We thus asked some questions about congruence with individuals and groups outside of departments. However, these accounts were somewhat limited given the size of the faculties.

The participating department chairs indicated that the newly-hired teachers “fit” well with the school and department. These descriptions are general and indicate that the new hires were at least not *poor* P-G fits for their departments. Discussions with the teachers demonstrated that they felt that they were good supplemental P-G fits in terms of willingness to collaborate and work as a team. However, many of the teachers also reported that they were adjusting to their new positions and still in the early stages of relationship-building both within and outside of their departments.

P-J fit. P-J fit also seemed to be generally strong for the teachers in this study. This was especially the case for the Art, Chorus, English, Math, Science, and SPED teachers. These teachers were taught courses that were new to them and noted having to make numerous adjustments. They felt prepared to teach in general but also reported that the supports they received were critical to their successes and continued improvement. Interviews with the ESL and Social Studies teachers indicate *initial* poor P-J fit because of the courses they were assigned. The Social Studies teacher primarily taught juniors and seniors who, at Barnes, were some of the lower-achieving students with greater behavior issues. She cited her age and looking as if she could perhaps be a student in one of her classes as perceived challenges for her position teaching 12th grade. The ESL teacher taught in a position that may have been a poor P-J fit for any teacher. In her first semester, she taught classes of over 30 ESL students that also had high turnover rates due to the school’s relatively high immigrant population. The Social Studies teacher noted successful new steps she had been taking and improved outcomes in her second

interview while the ESL teacher reported improved classroom performance coinciding with both becoming a better teacher and the department hiring a new teacher to meet the high ESL population. This new hire brought her class sizes down to between 20 and 25 students. Principals, department leaders, and other teachers asserted that the teachers were highly capable of performing their jobs at a high level.

Discussion, Recommendations, and Conclusion

This study offers several major findings that do not differ from what one might reasonably expect. For instance, the principals are in competition for shortage area subject teacher candidates, department chairs are involved in the interview process to help determine P-J fit, and the teachers in easier-to-staff subject areas are willing to compromise preferences to secure employment. However, documentation of these aspects of hiring is crucial, as they help expand upon and reinforce what is known about the sparsely examined but critical demand side of the teacher labor market. Furthermore, this study provides one of the few detailed descriptions of teacher hiring conducted this decade at the secondary public school level in a traditional labor market and offers understanding around processes that may explain findings in many quantitative studies. These findings also have important implications for research, policy, and practice on a wider scale which can be grouped into two broad categories: subject-specific hiring and fit in hiring. In the following, we discuss findings that are especially relevant to these two domains along with one outside theme that emerged. We then provide accompanying recommendations.

Subject-Specific Hiring

Three themes regarding hiring differences by subject area emerged from the interviews: (a) principals prioritized filling the shortage area subject positions, (b) easier-to-fill subject area ECTs felt a need to apply for jobs outside their stated preferences, and (c) the principals were

more conscious of how they approached hiring shortage subject area teachers and further attracted them to their schools. First, principals undoubtedly approached openings in high-demand subject areas with a sense of urgency and mentioned direct competition with principals both inside and outside of the district. High demand subject hiring (e.g., math, science) took clear priority over other subjects for which open positions received hundreds of applications (e.g., English, social studies). This pressure for principals to hire shortage area teachers seemed to extend to candidates with one math teacher noting she had very little time to decide if she would take the job at Barnes or pass in order to interview at another school. It is difficult to determine whether this practice is or is not effective for teachers in shortage area subjects and if prior teacher experience level may be a factor. As noted by Engel (2013), further research must look into the demand side of the teacher labor market equation and what techniques principals are best advised to use.

Conversely, findings strongly suggest that teachers experience hiring differently by subject area. ECT willingness to apply to and interview with schools outside of their stated preferences clearly contrasted by teaching field. Teachers in easy-to-staff fields were more agreeable to working farther from home and at different school levels (e.g., middle school, high school). The Social Studies teacher, in particular, acknowledged the difficulty she expected to find a history position and Dr. Bourque echoed this reality in his statements on hiring priorities by subject area. The veteran teachers did not voice the same levels of concern as ECTs regarding the search process and were local in their searches, the latter of which aligns with other research on teacher labor markets (e.g., Boyd et al., 2013). This insight may inform district recruitment practices; ECT labor market boundaries and subsequent responses to pressure may vary by teaching field and certification. In light of these findings employ additional strategies to expand

the quality of candidate pools for easy-to-staff teaching positions, such as forming partnerships with colleges and universities that are farther away and advertise openings farther outside a district.

Similarly, research should look at how both veteran teachers and ECTs may react differently to various aspects of a school, especially by certain subject areas as principals compete with one another for in-demand teachers. Much research has examined how monetary incentives may impact hiring and subsequent retention/turnover (e.g., Feng & Sass, 2018; Liu, Johnson, & Peske, 2004), but what are other aspects of a school teachers may be more attracted to when incentives are not viable? Does a science teacher care more about aspects of a school's classrooms and laboratories over other things? How can schools use their assets to their advantage as seen in Armstrong with the art teacher? Perhaps most importantly, what can a principal do to "sell" a school and job to a prospective teacher the way Dr. Bourque is said to do so well? Unfortunately, such research has yet to be conducted.

Recommendations for research.

- Research on teacher hiring should be careful to account for subject area taught when possible as approaches to hiring by both principals and candidates substantially vary by subject area.
- Research on teacher hiring should further consider the impact the principal has on candidate desire to work at a school and what techniques a principal may employ to make working at his or her school more attractive.

Recommendations for policy and practice.

- Hard-to-staff schools may consider expanding geographic recruitment efforts and university partnerships when seeking high-quality teachers in *non-shortage* subjects (e.g., art, English).

Teachers in these subjects appear more willing to travel or move for employment and seem to receive less targeted recruitment than those in shortage areas.

- Principals may consider consciously working to “sell” specific aspects of their schools to different subject area teachers (e.g., after-school reading program to English teachers, science laboratory to chemistry teachers).

Fit in Hiring

Perhaps most important regarding fit, findings strongly suggest that the hiring practices in Armstrong and Barnes *enable* fit but are not a recipe for future fit, especially among ECTs. Prior research has established connections between several hiring practices, especially information-rich hiring, and subsequent levels of fit (e.g., Ellis et al., 2017; Liu & Johnson, 2006). Our study helps build upon Ellis and colleagues’ (2017) finding that teachers in Texas public schools receiving information-rich interviews experienced greater P-J and P-O fit. The ECTs in our study gave numerous accounts of challenges they faced in the first half of the year around adjustment and satisfaction, which, to us, implied low initial P-J fit. These accounts were consistently accompanied by reports of supports and strategies that each teacher used to adjust and improve as an instructor. High job satisfaction, intent to remain, and accounts indicating improved P-J fit were attributed to the supports the teachers were either provided and/or sought throughout their first year, such as mentors, department teams, professional development, first-year peers, collaborating teachers, teachers in other schools, and partners/spouses. (See Table 4 for participant job satisfaction and intent to stay.) These supports enabled the participants, especially ECTs, to make successful and needed adjustments that, in turn, led to greater self-efficacy (i.e., P-J fit, job satisfaction). Many of these supports also involved interactions that increased familiarity with their departments, resulting in stronger relationships and feelings of P-G fit. To

build on these findings, future research on K-12 fit should examine how fit changes over time and how positive change can be enacted. Moreover, this finding should create greater caution around viewing certain practices, such as information-rich hiring, as panaceas for fit in schools.

Relatedly and surprisingly, the different levels of information-rich interviews and hiring timing observed in this study did not seem to be directly connected to fit. All of the teachers hired during the school year at Armstrong High School received information-rich interviews, and those hired in the summer received tours of the school while none of the teachers at Barnes High School did. However, three of the new hires at Barnes High School had deep knowledge about the school and, thus, arguably might not have needed information-rich interviews. Further, the time of year that many of the new hires interviewed did not seem to matter in these relatively easy-to-staff schools (see Tables 3 and 4). Principals consistently moved to hire replacements soon after the position became available, and the district allowed principals to recommend already-interviewed candidates for newly opened positions without repeating the interview process. Dr. Bourque felt that this expedited the hiring process for later teacher openings and gave him an advantage over those in other districts. Both principals also made job offers soon after interviewing the last candidate for a position and Dr. Bourque gave short timelines for chosen candidates to accept or decline. In the case of the in-demand first-year Math teacher, the short timeline clearly made a difference in her decision to teach at Barnes. These findings first call attention to the way that the field classifies an information-rich interview by showing how a candidate may gain a strong understanding of the school and position through other contacts and connections (see Table 4). Second, these findings may encourage other districts to allow schools to move to hire previously interviewed teachers for new positions in lieu of conducting additional interviews. Third, schools and districts may do well to make a job offer as soon as a

decision is made and give qualified ECTs, who did not as actively look for fit, short time windows for decisions to prevent them from interviewing and being hired at other schools.

This study also expands on other work covering principal searches for teacher fit by qualitatively examining the links between initial and subsequent fit. Both principals in this study employed team interviews that included department chairs to better ensure candidates possessed content knowledge and fit with the respective department. Dr. Apps and Dr. Bourque used department chairs to determine P-G and P-J fit—and actually *deferred* to department chairs in close deliberations over candidates. This is consistent with high school principals' methods of assessing candidate content knowledge with team interviews (e.g., Engel & Finch, 2015; Harris et al., 2010). Our results expand upon Engel and Finch's (2015) findings that in CPS, the role of a department leader or specialist on the hiring team "was generally very clear among high school principals: they wanted the specialist to evaluate the candidate's knowledge of subject matter and subject-specific teaching skills" (p. 15). The Armstrong and Barnes principals took this a step further as they noted a need for department chairs' understanding of content knowledge, specific position demands, and *fit with the department* (i.e., P-G fit). The search for P-G fit may be more important to high school hiring due to content specialization and may explain why research shows that team interviews are more frequent in high schools than elementary and middle schools in CPS (e.g., Engel & Curran, 2016). Teacher leadership programs, increasingly offered by universities and states (e.g., Natale, Bassett, Gaddis, & McKnight, 2013), may consider including lessons on screening teacher candidates in their curricula.

Recommendations for research.

- Research should further consider fit as a malleable measure and examine ways in which school leaders may increase levels of teacher fit after the actual hiring.

- Research should work to explore issues of P-G fit in hiring, especially at the secondary level, as P-G fit was of clear importance to the principals.
- The definition of *information-rich hiring* may need to be broadened to account for experiences and relationships candidates have with a school outside of the interview itself.

Recommendations for policy and practice.

- Districts may consider streamlining procedures around hiring so that principals can directly move to hire previously interviewed candidates when new positions in the same subject arise.
- Consider giving ECTs short windows in which to decide to accept or reject a job offer.
- Principals should strongly consider involving teacher leaders who are qualified to assess P-J *and* P-G fit in the hiring process as they may be the most qualified to do so.
- Teacher leadership programs should consider incorporating issues of hiring into their curricula.

Other Considerations

While slightly outside the scope of our immediate purposes in this study, issues around time devoted to hiring repeatedly surfaced throughout our investigation. The principalship is characterized by heavy workloads and time constraints (e.g., Cushing, Kerrins, & Johnstone, 2003; DiPaola & Tschannen-Moran, 2003) and teacher hiring is among a principal's most consequential tasks. Prior research has examined the ways in which principals allocate time to various tasks (e.g., Grissom, Loeb, & Mitani, 2015; Horng et al., 2010; May & Supovitz, 2011), but has yet to differentiate time devoted to hiring from total time spent on human capital-related tasks. This study offers a qualitative illustration of the time-consuming nature of the hiring process as described by both principals who interview at least four candidates for each open position. Screening, for instance, took an extraordinarily long amount of time with Dr. Apps

reporting spending an entire day working through applications for a single assistant principal position. The principals strongly emphasized the importance of hiring but were often simply too pressed for time to employ interview techniques such as teaching sample lessons and demonstrating the ability to work in teams described in DeArmond and colleagues' (2012) study of hiring within a charter management organization. In the words of Dr. Bourque, "Some interview teams actually have prospective teachers teach a lesson to the team, and that's great if you've got the time for that. Sounds like a good idea if you have the time for it. I just don't." It became clear throughout the principal interviews that time constraints prevented the use of various other screening and selection criteria and methods.

Recommendations for research.

- Research on principal time use should work to differentiate between different aspects of human capital functions in order to determine how much time is devoted to hiring practices.

Recommendations for practice and policy.

- Districts should assess how time-intensive hiring processes are for their principals and work with principals to determine ways of facilitating hiring.
- Principals may want to consider involving teacher leaders in the application screening process to distribute time and utilize these teacher leaders' abilities to assess P-J fit.

Overall, this comparative case study demonstrates how hiring varies by subject area taught and may be related to fit, directions in which research efforts should focus in the future, and ways in which these findings can inform research and better policy and practice. At the same time, the significance of these findings illustrates just how little research is available to inform policy and practice and this is problematic. Strikingly, each principal referred to team interviews

as “best practice” and yet there is little to no extant research to suggest that they were, in fact, using research-based best practice. Through the interviews, it became apparent that the principals, both with master’s and doctoral degrees in educational leadership, had learned their hiring practices primarily through experience. This is in no way a strike against the leaders or the quality of their preparation programs; there simply is not enough research around what works and what does not work to inform best practice for school leaders or school districts. It is only through further research on hiring that one of the most critical responsibilities of the principal can be informed.

Notes

¹ Some recent qualitative research has enhanced understanding of contextual dynamics of teacher hiring, such as constraints principals face (Donaldson, 2013) or discrimination in the hiring process (e.g., Hart & Hart, 2018). However, the six studies outlined in this section are the only recent ones to examine the actors' (e.g., principals, teachers) actual actions and strategies in use.

² The Chorus teacher began as a long-term substitute the previous December and went through a series of interviews to gain her permanent position. Her interviews helped triangulate data and inform our findings but her interview experiences are excluded from our findings because our primary interest is in the traditional interview process.

³ ESL and Spanish both report to the World Language department chair at Barnes High School.

References

- Bogler, R., & Nir, A. E. (2015). The contribution of perceived fit between job demands and abilities to teachers' commitment and job satisfaction. *Educational Management Administration & Leadership*, 43(4), 541-560.
- Borman, G. D., & Dowling, N. M. (2008). Teacher attrition and retention: A meta-analytic and narrative review of the research. *Review of Educational Research*, 78(3), 367-409.
- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2002). *Initial matches, transfers, and quits: Career decisions and the disparities in average teacher qualifications across schools*. Unpublished manuscript, University of Albany, SUNY.
- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). The draw of home: How teachers' preferences for proximity disadvantage urban schools. *Journal of Policy Analysis and Management*, 24(1), 113-132.
- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2013). Analyzing the determinants of the matching of public school teachers to jobs: Disentangling the preferences of teachers and employers. *Journal of Labor Economics*, 31(1), 83-117.
- Cannata, M. (2010). Understanding the teacher job search process: Espoused preferences and preferences in use. *Teachers College Record*, 112(12), 2889-2934.
- Cannata, M. (2011). The role of social networks in the teacher job search process. *The Elementary School Journal*, 111(3), 477-500.
- Cannata, M., & Engel, M. (2012). Does charter status determine preferences? Comparing the hiring preferences of charter and traditional public school principals. *Education*, 7(4), 455-488.
- Cannata, M., Engel, M., Nguyen, T. D., & Curran, F. C. (2017). *Paths to leadership: Understanding teacher influence in hiring*. Presentation at the Annual Meeting of Association for Education Finance and Policy in Washington, D.C., March 16, 2017.
- Chan W.Y., Lau S., Nie Y., Lim S., & Hogan D. (2008). Organizational and personal predictors of teacher commitment: The mediating role of teacher efficacy and identification with school. *American Educational Research Journal*, 45(3), 597-630.
- Clotfelter, C. T., Ladd, H. F., Vigdor, J. L., & Diaz, R. A. (2004). Do school accountability systems make it more difficult for low-performing schools to attract and retain high-quality teachers? *Journal of Policy Analysis and Management*, 23(2), 251-271.
- Cohen-Vogel, L., Little, M., & Fierro, C. (2017). Evidence-based staffing in high schools: Using student achievement data in teacher hiring, evaluation, and assignment. *Leadership and Policy in Schools*, 1-34.
- Cowan, J., Goldhaber, D., Hayes, K., & Theobald, R. (2016). Missing elements in the discussion of teacher shortages. *Educational Researcher*, 45(8), 460-462.
- Cranston, J. (2012). Exploring school principals hiring decisions: Fitting in and getting hired. *Canadian Journal of Educational Administration and Policy*, 135. Retrieved May 17, 2017 from <http://ajer.journalhosting.ucalgary.ca/index.php/ajer/article/view/1053>
- Curtis, C. (2012). Why do they choose to teach-and why do they leave? A study of middle school and high school mathematics teachers. *Education*, 132(4), 779.
- Cushing, K. S., Kerrins, J. A., & Johnstone, T. (2003). Disappearing Principals. *Leadership*, 32(5), 28.
- Daly, T., Keeling, D., Grainger, R., & Grundies, A. (2008). *Mutual benefits: New York City's shift to mutual consent in teacher hiring*. The New Teacher Project policy brief

- downloaded February 29, 2016 from
http://www.tntp.org/publications/Mutual_Benefits.html.
- DeArmond, M., Gross, B., Bowen, M., Demeritt, A., & Lake, R. (2012). *Managing talent for school coherence: Learning from charter management organizations*. Bethel: Center for Reinventing Public Education, University of Washington.
- DiPaola, M., & Tschannen-Moran, M. (2003). The principalship at a crossroads: A study of the conditions and concerns of principals. *NASSP Bulletin*, 87(634), 43-65.
- Donaldson, M. L. (2013). Principals' approaches to cultivating teacher effectiveness: Constraints and opportunities in hiring, assigning, evaluating, and developing teachers. *Educational Administration Quarterly*, 49(5), 838-882.
- Donaldson, M. L., & Johnson, S. M. (2010). The price of misassignment the role of teaching assignments in Teach for America teachers' exit from low-income schools and the teaching profession. *Educational Evaluation and Policy Analysis*, 32(2), 299-323.
- Egalite, A. J., Jensen, L. I., Stewart, T., & Wolf, P. J. (2014). Finding the right fit: Recruiting and retaining teachers in Milwaukee choice schools. *Journal of School Choice*, 8(1), 113-140.
- Ellis, C., Skidmore, S. T., & Combs, J. P. (2017). The hiring process matters: The role of person–job and person–organization fit in teacher satisfaction. *Educational Administration Quarterly*, 53(1), 1-27.
- Engel, M. (2008). *Principals' and districts' hiring practices: An exploration of the demand side of the teacher labor market*. Retrieved from ProQuest LLC. (UMI microform 3336518)
- Engel, M. (2013). Problematic preferences? A mixed method examination of principals' preferences for teacher characteristics in Chicago. *Educational Administration Quarterly*, 49(1), 52-91.
- Engel, M., & Cannata, M. (2015). Localism and teacher labor markets: How geography and decision-making may contribute to inequality. *Peabody Journal of Education*, 90(1), 84-92.
- Engel, M., Cannata, M., & Curran, F. C. (2018). Principal influence in teacher hiring: Documenting decentralization over time. *Journal of Educational Administration*, 56(3), 277-296.
- Engel, M., & Curran, F. C. (2016). Toward understanding principals' hiring practices. *Journal of Educational Administration*, 54(2), 173-190.
- Engel, M., & Finch, M. A. (2015). Staffing the classroom: How urban principals find teachers and make hiring decisions. *Leadership and Policy in Schools*, 14(1), 12-41.
- Engel, M., Jacob, B. A., & Curran, F. C. (2013). New evidence on teacher labor supply. *American Educational Research Journal*, 51(1), 36-72.
- Feng, L., & Sass, T. R. (2018). The impact of incentives to recruit and retain teachers in “hard-to-staff” subjects. *Journal of Policy Analysis and Management*, 37(1), 112-135.
- Goldhaber, D., Krieg, J., Theobald, R., and Brown, N. (2014). The STEM and special education teacher pipelines: Why don't we see better alignment between supply and demand? CEDR Working Paper 2014-3. University of Washington, Seattle, WA.
- Goldhaber, D., Lavery, L., & Theobald, R. (2015). Uneven playing field? Assessing the teacher quality gap between advantaged and disadvantaged students. *Educational Researcher*, 44(5), 293-307.
- Grissom, J. A., Loeb, S., & Mitani, H. (2015). Principal time management skills: Explaining patterns in principals' time use, job stress, and perceived effectiveness. *Journal of Educational Administration*, 53(6), 773-793.

- Hallinger, P., & Heck, R. H. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement*, 9(2), 157-191.
- Harris, D. N., & Rutledge, S. A. (2010). Models and predictors of teacher effectiveness: A comparison of research about teaching and other occupations. *Teachers College Record*, 112(3), 914-960.
- Harris, D. N., Rutledge, S. A., Ingle, W. K., & Thompson, C. C. (2010). Mix and match: What principals really look for when hiring teachers. *Education*, 5(2), 228-246.
- Hart, W. H., & Hart, L. (2018). When Johnny becomes janie: An investigation of the attitudes of school leaders on the placement and hiring of transgender teacher candidates. *Journal of School Leadership*, 28(1).
- Hornig, E. L., Klasik, D., & Loeb, S. (2010). Principal's time use and school effectiveness. *American Journal of Education*, 116(4), 491-523.
- Ingersoll, R. M., & May, H. (2012). The magnitude, destinations, and determinants of mathematics and science teacher turnover. *Educational Evaluation and Policy Analysis*, 34(4), 435-464.
- Ingle, K., Rutledge, S., & Bishop, J. (2011). Context matters: Principals' sensemaking of teacher hiring and on-the-job performance. *Journal of Educational Administration*, 49(5), 579-610.
- Jabbar, H. (2018). Recruiting "talent": School choice and teacher hiring in New Orleans. *Educational Administration Quarterly*, 54(1), 115-151.
- Jacob, B. A. (2007). The challenges of staffing urban schools with effective teachers. *The Future of Children*, 17(1), 129-153.
- Klar, H. W. (2012). Fostering distributed instructional leadership: A sociocultural perspective of leadership development in urban high schools. *Leadership and Policy in Schools*, 11(4), 365-390.
- Kogan, D., Wolff, K., & Russell, M. (1995). *Changes in the hiring process: New actors, new practices, and new challenges. Final Report, Volume 1: Findings and Implications* (Research Report 143). Menlo Park, CA: Social Policy Research Associates. Retrieved March 3, 2016 from <http://files.eric.ed.gov/fulltext/ED400383.pdf>
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurements, and implications. *Personnel Psychology*, 49(1), 1-49.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-superior fit. *Personnel Psychology*, 58(2), 281-342.
- Levin, J., Mulhern, J., & Schunck, J. (2005). Unintended consequences: The case for reforming the staffing rules in urban teachers union contracts. Brooklyn, NY: The New Teacher Project.
- Levin, J., & Quinn, M. (2003). *Missed opportunities: How we keep high quality teachers out of urban classrooms*. Washington, DC: New Teacher Project.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Park, CA: Sage Publications.
- Liu, E., & Johnson, S. M. (2006). New teachers' experiences of hiring: Late, rushed, and information-poor. *Educational Administration Quarterly*, 42(3), 324-360.
- Liu, E., Johnson, S. M., & Peske, H. G. (2004). New teachers and the Massachusetts signing bonus: The limits of inducements. *Educational Evaluation and Policy Analysis*, 26(3), 217-236.

- Liu, E., Rosenstein, J. G., Swan, A. E., & Khalil, D. (2008). When districts encounter teacher shortages: The challenges of recruiting and retaining mathematics teachers in urban districts. *Leadership & Policy in Schools*, 7(3), 296–323.
- Lochmiller, C. R. (2016). Examining administrators' instructional feedback to high school math and science teachers. *Educational Administration Quarterly*, 52(1), 75-109.
- Loeb, S., Kalogrides, D., & Béteille, T. (2012). Effective schools: Teacher hiring, assignment, development, and retention. *Education*, 7(3), 269-304.
- Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E., (2010). *Learning from leadership: Investigating the links to improved student learning*. New York, NY: The Wallace Foundation.
- Maxwell, J. A. (2012). *A realist approach for qualitative research*. Thousand Oaks: SAGE Publications.
- May, H., & Supovitz, J. A. (2011). The scope of principal efforts to improve instruction. *Educational Administration Quarterly*, 47(2), 332-352.
- Miller, L. (2012). Situating the rural teacher labor market in the broader context: A descriptive analysis of the market dynamics in New York state. *Journal of Research in Rural Education*, 27(13), 1-31.
- Natale, C. F., Bassett, K., Gaddis, L., McKnight, K. (2013). *Creating sustainable teacher career pathways: A 21st century imperative*. Washington, DC: National Network of State Teachers of the Year & Pearson Research and Innovation Network. Retrieved from <http://www.nnstoy.org/download/Final%20updated%20Research%20Report.pdf>
- Papay, J. P., & Kraft, M. A. (2016). The productivity costs of inefficient hiring practices: evidence from late teacher hiring. *Journal of Policy Analysis and Management*, 35(4), 791-817.
- Player, D. W., Youngs, P., Perrone, F., & Grogan, E. (2017). How principal leadership and person-job fit are associated with teacher mobility and attrition. *Teaching and Teacher Education*, 67, 330-339.
- Pogodzinski, B., Youngs, P., & Frank, K. (2013). Collegial climate and novice teachers' intent to remain teaching. *American Journal of Education*, 120(1), 27-54.
- Reininger, M. (2012). Hometown disadvantage? It depends on where you're from: Teachers' location preferences and the implications for staffing schools. *Educational Evaluation and Policy Analysis*, 34(2), 127-145.
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.
- Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *The American Economic Review*, 94(2), 247-252.
- Runciman, W. G. (1983). *A treatise on social theory. Volume 1: The methodology of social theory*. Cambridge, UK; New York, NY: Cambridge University Press.
- Rutledge, S. A., Harris, D. N., & Ingle, W. K. (2010). How principals “bridge and buffer” the new demands of teacher quality and accountability: A mixed-methods analysis of teacher hiring. *American Journal of Education*, 116(2), 211-242.
- Rutledge, S. A., Harris, D. N., Thompson, C. T., & Ingle, W. K. (2008). Certify, blink, hire: An examination of the process and tools of teacher screening and selection. *Leadership and Policy in Schools*, 7(3), 237-263.
- Shuls, J., & Maranto, R. (2014). Show them the mission: A comparison of teacher recruitment incentives in high need communities. *Social Science Quarterly*, 95(1), 239-252.

- Simon, N. S., Johnson, S. M., & Reinhorn, S. K. (2015a). *The challenge of recruiting and hiring teachers of color: Lessons from six high-performing, high-poverty, urban schools*. Retrieved October 15, 2016, from: http://projectnxt.gse.harvard.edu/files/gse-projectnxt/files/the_challenge_of_recruiting_and_hiring_teachers_of_color_diversity_july_2015.pdf
- Simon, N. S., Johnson, S. M., & Reinhorn, S. K. (2015b). *The matchmaking process: Teacher hiring in six successful, high-poverty, urban schools*. Cambridge, MA: Harvard Graduate School of Education, The Project on the Next Generation of Teachers. Retrieved September 19, 2015, from http://isites.harvard.edu/fs/docs/icb.topic1231814.files/The_Matchmaking_Process_Hiring_July_2015.pdf
- Silverthorne, C. (2004). The impact of organizational culture and person-organization fit on organizational commitment and job satisfaction in Taiwan. *Leadership & Organization Development Journal*, 25(7), 592-599.
- Stein, M. K., & Nelson, B. S. (2003). Leadership content knowledge. *Educational Evaluation and Policy Analysis*, 25(4), 423-448.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S. report of the Learning Policy Institute*. Palo Alto, CA: Learning Policy Institute.
- U.S. Department of Education. (2017, June). Teacher shortage areas nationwide listing 1990-1991 through 2017-2018. Washington, DC: Office of Postsecondary Education.
- U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS). (n.d.). Table 7. Percentage of public school principals who thought they had a major influence on decisions concerning various activities at their school, by selected school characteristics: 2015–16. In U.S. Department of Education, National Center for Education Statistics (Ed.), *Public School Principal Data File, 2015–16*. Retrieved from https://nces.ed.gov/surveys/ntps/tables/Table_7_042717.asp
- Van Maanen, J. (1983). The fact and fiction in organizational ethnography. In J. Van Maanen (Ed.), *Qualitative methodology* (pp. 37-55). Beverly Hills, CA: Sage Publications.
- Vancouver, J. B., & Schmitt, N. W. (1991). An exploratory examination of person-organization fit: Organizational goal congruence. *Personnel Psychology*, 44(2), 333-352.

Table 1

Interview schedule, number of interviews, and approximate total time for interviews

Interviewee position	1st Interview	2nd Interview	Total # interviews	Total time of interviews
Principal	July 2016	October, April '16/17	4	~ 105 minutes
Newly-hired teacher	October 2016	January 2017	16	~ 645 minutes
Department chair	January 2017	N/A	6	~ 235 minutes

Total time: 16 hours and 40 minutes

Table 2

School demographics

School Name	Armstrong High School	Barnes High School
# Students	1,500+	1,500+
% White	~60%	~40%
% Black	~20%	~30%
% Hispanic	~5%	~10%
% Asian	~10%	~15%
Testing		
Reading - % Pass	~95%	~90%
Math - % Pass	~85%	~65%
% FRL	~10%	~40%

Table 3

Teacher backgrounds and hiring timelines

Subject	Years Exp.	Gender	Reason for Leaving Prior Teaching Job	Began Applying to Positions	Interview at Armstrong or Barnes	Job Offer
Armstrong High School						
Art	0	F	-	August	August	August
Chorus	0.5*	F	-	-	April or May	Soon after
English	3	F	Avoid burnout	February	April	May**
Science	22	F	Surplused	February	April	One day later
Barnes High School						
ESL	0	F	-	March	May	One week later
Social Studies	0	F	-	March	May	June*
Math	0	F	-	March	April	30 minutes later
SPED	11	M	Work closer to home	March	March	Contacted next day, phone tag for 1.5-2 wks

Notes: * Chorus teacher initially began as substitute teacher and did not have prior experience teaching.

** Was not chosen for position initially interview for; was selected to fill position in department that opened later

Table 4

Teacher knowledge of school, job satisfaction, and intent to stay

Subject	Source of Knowledge About or Connection to School	Job Satisfaction (in January)	Intent to Stay
Armstrong High School			
Art	Partner and friends know person who had position	“I mean, I love being here. I love being here every day. I love my students.”	At least 5 years
Chorus	Mutual friend of Art and Music department chair	“I really like it.”	At least 5 years
English	No recorded personal	“Somewhere between 75 to 85 percent satisfaction.”	Foreseeable future, would like more diversity
Science	Previously worked under Dr. Apps and with other Armstrong teachers	“My year is going great... I’m having a delightful year... I feel very, very fortunate.”	Until retirement
Barnes High School			
ESL	Family member attended Barnes	Improving and depends upon the week.	At least one more year
Social Studies	Practicum at Barnes	“It’s been good.”	Foreseeable future - maybe one day go into administration
Math	Professor from Carlyle area	“It’s been good. I really like my job.”	“for a long time”
SPED	Spouse teaches at Barnes	“I would say, overall, it’s been great.”	Until retirement