

Running Head: CHARTER SCHOOLS AND THE TEACHER JOB SEARCH

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Abstract

This paper examines the position of charter schools in prospective elementary teachers' job search decisions. Using a labor market segmentation framework, it explores teacher applicants' decisions to apply to charter schools. The data come from a mixed-methods longitudinal study of prospective teachers looking for their first job. This paper finds moderate support that the labor market is segmented between charter and traditional public schools. The school's institutional status and applicants' lack of familiarity with charter schools were related to their disinclination to apply to charter schools.

Keywords: Charter schools, teacher career decisions, teacher labor market

Charter Schools and the Teacher Job Search

Charter schools have been the subject of much educational policy research focusing on student achievement, governance, funding, and student segregation (see, for example, Buckley & Schneider, 2005; Buddin & Zimmer, 2005; Bulkley & Hicks, 2005; Frankenberg & Lee, 2003). As teachers are the most important school resource for student learning, we need to understand who teaches in charter schools and why they teach there. Previous research suggests that charter school teachers tend to come from more selective colleges than their peers in traditional public schools, but they are also more likely to be inexperienced and lack certification (Baker & Dickerson, 2006; Burian-Fitzgerald, Luekens, & Strizek, 2004; Guarino, 2003; Hoxby, 2002; Podgursky & Ballou, 2001). Charter school teachers also earn lower salaries and have higher attrition (Harris, 2006, 2007; Miron & Applegate, 2007). There are ambiguous findings on the conditions inside charter schools, with charter school teachers reporting more autonomy and professional community, but less influence over schoolwide decisions (Bomotti, Ginsberg, & Cobb, 1999; Cannata, 2007; Crawford & Forsyth, 2004; Johnson & Landman, 2000; Vanourek, Manno, Finn, & Bierlein Palmer, 1998).

The different qualifications and work experiences of charter and traditional public school teachers raise questions about the degree of similarity between teachers seeking jobs in charter and traditional public schools. Yet we know little about the overall impact of charter schools on the teacher labor market. Research on working conditions comes from asking current charter school teachers what they like or do not like about working in their school. While these studies are valuable, we can only infer from their findings how charter schools fit into the larger landscape as teachers decide where to teach.

This paper explores how prospective elementary teachers think about charter schools as they enter the labor market, apply for teaching jobs, and decide where to work. Using a framework of labor market segmentation, it develops a model for understanding the interaction between institutional and informal boundaries in school sectors and teachers' job search processes. Using qualitative and quantitative data from prospective teachers in Michigan, this paper analyzes teachers' decisions to apply to charter schools. As such, it is a first step in analyzing the potential impact of charter schools on the teacher labor market.

Labor Market Segmentation

Why should we expect teachers to treat charter schools any differently than traditional public schools in their job search? Traditionally, the teacher labor market is considered a monopsony—that is, the labor market has reduced competition because one district serves as the single employer of teachers within a geographic area (Merrifield, 1999; Vedder & Hall, 2000). Although districts compete with each other for teachers, the centralized staffing practices and the influence of teacher unions reduces competition. Charter schools have the potential to inject more competition into the labor market as they offer additional employment opportunities. This should benefit teachers as schools and districts must compete more aggressively for their skills.

The effect of these added opportunities, however, depends on how teachers view charter schools and the time and resources it takes for workers and employers to find each other (Rogerson, Shimer, & Wright, 2005). Labor market segmentation theory provides useful a frame for exploring the relationship between charter schools and the teacher labor market because it focus attention on how teachers approach the job search and the difficulties that may arise when jobs are segmented into distinct groups. Labor market theory argues that teachers make decisions during a job search by weighing the relative costs and benefits (Petrongolo & Pissarides, 2001).

Job seekers weigh the costs involved in particular job search activities (e.g., time and resources), the probability that those activities will lead to a job offer, and the characteristics of potentially available jobs when deciding where to apply (Devine & Kiefer, 1991; Holzer, 1988; Petrongolo & Pissarides, 2001). Traditional labor supply and demand models do not accurately explain labor market outcomes due to the time and resources it takes to find a job (Rogerson et al., 2005). Paying attention to these activities is important because job search processes shape teachers' perceptions about what opportunities are available (Cannata, 2010).

These complexities are amplified in the presence of a segmented labor market, which develops when there are institutional or informal boundaries that limit movement of workers between subgroups within the labor market, such as charter and traditional public schools. Employer expectations about certification or union membership may divide labor markets into distinct sectors that have different compensation and employment structures (Dickens & Lang, 1992; Kerr, 1954; Reid & Rubin, 2003). An important implication of a segmented labor market is that salary, working conditions, and job security differs between the primary and secondary sectors (Baffoe-Bonnie, 2003; Beck, Horan, & Tolbert, 1978; Dickens & Lang, 1992; Osterman, 1975; Reid & Rubin, 2003). The primary—or core—sector offers jobs in larger organizations with higher salaries and more job security. The secondary—or peripheral—sector, however, offers jobs in smaller organizations with temporary employment contracts and lower wages. The primary sector has clear rules for promotion, a tight link between skills and salary, and tends to be highly unionized (although there are exceptions such as tenure track professors in higher education). The secondary sector, on the other hand, is less likely to be unionized and has unpredictable wages (Beck et al., 1978). While the primary sector may appear to offer more enticing conditions, institutional barriers limit movement between sectors (Dickens & Lang,

1992; Kerr, 1954). Institutional barriers may include both distinctions made between schools (such as whether a school is publicly funded or has a formal partnership with a teacher education program) and distinctions made between applicants (such as being certified). Informal boundaries, such as social and cultural distinctions, social networks, and geography, also contribute to labor market segmentation (Bauder, 2001).

The labor market outcome of any particular teacher applicant depends on the likelihood that the teacher makes a match with particular schools, which is usually considered to be either random or directed (Rogerson et al., 2005). Random searches are those where prospective teachers contact schools at random; directed searches are those where prospective teachers contact schools that offer the highest wages or best working conditions before contacting less desirable schools. Yet in a segmented labor market, teachers' job searches may be neither completely random nor completely directed. For example, institutional or informal boundaries may restrict the applicant's ability to contact either charter or traditional public schools. Likewise, if a segment of schools is absent from their search, prospective teachers may not always have directed searches seeking the best combination of salary and working conditions. Thus the idea that teachers choose schools based solely on salary and working conditions is incomplete in a segmented labor market. Institutional and informal barriers may limit what teachers see as options before they reach the stage of comparing different types of schools.

Examining whether the presence of charter schools creates a segmented teacher labor market focuses our attention on three key questions. First, to what extent do teachers give charter schools the same consideration as traditional public schools when applying for jobs? Second, are there institutional or informal barriers that influence whether teachers apply to charter schools? Third, are there observable differences in the qualifications, salary, and working conditions

between teachers who end up in charter and traditional public schools? The remainder of this paper will explore these questions. The next section examines evidence from existing research.

Previous Research on Teachers in Charter Schools

Labor market segmentation theory focuses attention on the institutional structures that may contribute to differences between sectors. Charter schools operate in a complex institutional environment. Like private schools, they do not have defined attendance areas and students must apply to attend. Further, they generally are not unionized, creating another key institutional difference between charter and traditional public school sectors. Yet charter schools are publicly funded, have open admissions, and may require teachers to be certified (as in the state where this study was conducted), making them similar to traditional public schools.

The second key characteristic of a segmented labor market is the differentiated job qualifications, pay, and working conditions between sectors. Certain differences between charter and traditional public school teachers mirror differences between the primary and secondary sectors. For example, charter school teachers have less experience, are less likely to be certified, are less educated, and have higher attrition rates (Burian-Fitzgerald et al., 2004; Harris, 2007; Miron & Nelson, 2002). Likewise, charter school teachers in some settings are more likely than traditional public school teachers to report that they took the only job available to them and that this lack of choice was linked to their lower qualifications (Cannata & Penaloza, 2009). They also have somewhat lower salaries that are less dependent on education and years of experience (Gross & DeArmond, 2010; Gruber, Wiley, Broughman, Strizek, & Burian-Fitzgerald, 2002; Harris, 2006). Further, charter schools are less likely to have union contracts, resulting in less job security (Johnson & Landman, 2000; Podgursky, 2008).

The evidence is mixed on whether the different working conditions in charter and traditional public schools favor one sector over the other. Some of the mixed evidence may be due to differences between geographic areas, while others findings suggest that charter schools appear more desirable on some characteristics, but less desirable on others. On the one hand, charter school teachers report feeling more empowered in their classrooms and working under better teaching conditions (Bomotti et al., 1999; Hoxby, 2002). Many teachers choose charter schools to work with like-minded colleagues and engage in educational reform (Johnson & Landman, 2000; Miron, Cullen, Applegate, & Farrell, 2007). Charter school teachers also report higher levels of professional community (Cannata, 2007; Gawlik, 2007; Goldring & Cravens, 2008; Wohlstetter & Griffin, 1998).

Yet other factors may make charter schools less desirable workplaces. Teachers report less satisfaction with their schools' physical buildings and lower salaries (Bomotti et al., 1999; Gross & DeArmond, 2010; Harris, 2006). The lack of grievance procedure may leave some teachers frustrated despite the presence of shared values, and the pressures of working in a charter school may leave little time for collaboration (Johnson & Landman, 2000). Further, the autonomy given to charter schools does not guarantee that influence over schoolwide decisions extends to teachers (Bomotti et al., 1999; Crawford, 2001; Johnson & Landman, 2000). Overall, the existing literature suggests there are notable differences in the qualifications and work experiences of charter and traditional public school teachers. Some of these differences highlight the heterogeneity of charter schools and some may reflect institutional structures that shape teachers' job search decisions.

Charter School Context

As the laws and practical context of charter schools vary tremendously, it is useful to know the context in which this study took place. The research design focuses on the Detroit metropolitan area at a time when it was suffering significant job losses and had an over-supply of teachers, partly because of stagnant per-pupil funding and enrollment patterns tied to population declines. Still, the state bureau of labor rated elementary teaching as having among the largest number of annual job openings. One recent trend that eased the job market for new teachers was the presence of retirement incentives for experienced teachers.

Another major factor in the enrollment trends of public school districts, and Detroit in particular, is increasing competition from charter schools. About 45 charter schools—mostly elementary—are located in Detroit's borders and over 100 are within the metropolitan area. In 2009, 25 percent of children in Detroit attended charter schools. At the time of this study, just less than 10 percent of public school teachers in the area worked in charter schools. While many districts in the area stopped hiring new elementary teachers, charter schools continued to grow and need more teachers. Personnel reports from the state administrative database indicate that in the year after this study was conducted, about 55 percent of teachers in charter schools in the counties that surround Detroit were hired within the past year, compared to only 7 percent in area school districts (Center for Educational Performance and Information, 2007). Thus charter schools represent a considerable source of jobs.

Charter schools in Michigan may be authorized by community colleges, universities, local school districts, and intermediate school districts; most around Detroit are authorized by universities and operated by education management organizations (EMOs). Funding is tied to the per-pupil foundation grant, but caps on the foundation grant and difficulties in obtaining capital

expenses mean charter schools receive about \$1,800 less per pupil than their host districts (Michigan Department of Education, 2008). Charter schools do not have automatic waivers from state regulations, and teachers must be fully certified. Although faculty at colleges that authorize charter schools can teach in them without certification, this rarely happens. Few charter schools are unionized. As most are managed by EMOs, teachers generally do not participate in the state teacher retirement system, although some EMOs provide other retirement and insurance benefits. Salaries are significantly lower (about \$15,000 on average) in charter schools than in traditional public schools in Michigan, although two-thirds of this gap is tied to disparities in teacher qualifications (Harris, 2006). The large presence of for-profit EMOs, university authorizing structure, and Detroit-area labor market make Michigan's charter schools somewhat unusual. Thus the context in which this study was located limits the generalizability of the findings to other locations.

Data and Analytic Methods

The data come from a mixed-methods longitudinal study of prospective elementary teachers. The data include interviews with 27 teacher applicants at several points in their job search and a longitudinal survey of 160 teacher applicants. Data from this study have also been reported in previous work by the author on teachers' job searches more generally (Cannata, 2010; in press), although this paper extends the previous research by examining the specific role of charter schools in teachers' career decisions.

Sampling Strategy

Elementary student teachers graduating from teacher preparation programs in six colleges in the Detroit metropolitan area were sampled. Elementary student teachers were chosen to define a sample that would be looking for similar jobs. The initial survey was administered at the

beginning of the teacher hiring season and had overall response rate of 60.7% with a sample size of 289. The initial survey asked about background characteristics and qualifications, perception of the teaching field, confidence in getting a job offer, and initial preferences for where to work.

All respondents to the initial survey were asked to complete a follow-up survey in October. The follow-up survey had a response rate of 59.2% and a sample size of 171 teacher applicants. Eleven respondents did not apply to any teaching jobs, leaving a final sample for analyses of 160 teacher applicants. The follow-up survey gathered detail information about where they applied, where they had job offers, and where they ended up teaching.

Data collection also included interviews with 27 prospective elementary teachers—a subset of the survey sample—at two points during the teacher hiring season. To ensure a diversity of backgrounds and experiences when choosing the interview sample, consideration was given to the college or university attended, ethnicity, gender, and career status. The first interview took place in the spring and the second interview was in late summer. Half the teacher candidates did not consider their job search over by the second interview and were interviewed again in September.

The interviews attempted to capture teachers' job search processes in general and specific ways. First, applicants were asked about their general strategies for identifying open positions, gathering information about schools, deciding where to apply, and preferences for where to work. Second, teacher applicants were asked to describe specific schools in which they were pursuing jobs, including how they heard about that job, why they applied, their experiences on interviews, their perceptions of the school, and their sources of information about the school that influenced those perceptions. This dual questioning strategy was designed to elicit details of their job search. The interview protocol did not start with specific questions about charter schools.

This allowed applicants to discuss their experiences in ways that were most salient to them, rather than artificially focusing on charter schools. One-third of teacher applicants mentioned charter schools prior to specific prompting about them.

To identify possible response bias, the demographic characteristics of the survey and interview samples were compared to a state administrative database. As shown in Table 1, the sample is predominantly White and female, which is expected given its focus on elementary teacher applicants. Males and African Americans were purposely oversampled in the interview sample as these groups are traditionally underrepresented in the elementary teaching force. The survey sample slightly under represents males due to differential nonresponse on the follow-up survey and over represents non-White and non-African American teacher applicants. Two strategies were used to evaluate the implications of these differences on the study validity. First, because the response rate for the initial survey was depressed by particularly low response from one college, the analyses were conducted with and without respondents from this one college. The results were consistent, indicating that the low response from one college did not affect the results. Second, preferences as indicated on the initial survey between responders and non-responders to the follow-up survey were compared and no significant differences were found.

Interview Coding and Analysis

The interviews were transcribed and analyzed at two levels. The first stage of data analysis involved creating cases for each teacher (Miles & Huberman, 1994). After the first interview, an initial analytic memo was prepared for each teacher that highlighted his or her processes and preferences. Themes from these analytic memos were discussed with the participants to check the validity of researcher interpretations (Maxwell, 1992). For the second level of data analysis, the interviews were coded using a constant comparative method (Glaser,

1965) to identify central themes in each teacher's decision-making and experiences. The initial set of codes highlighted the criteria teacher applicants used to evaluate schools, how they identified available positions, and how they made decisions about where to work. In addition to codes about teachers' job search processes and preferences in general, several codes referred to charter schools, including whether teachers made positive, negative, or neutral statements about charter schools and whether they preferred or avoided them.

Initial coding and analysis required revisions to the list of codes to extend existing themes, create distinctions with heavily used codes, and fill in emergent themes not present in the initial coding scheme (Miles & Huberman, 1994). In particular, as the lack of research on charter schools and teacher career choices offered little a priori guidance for coding, much of the coding scheme for the impact of charter schools on their career decisions, such as the reasons they provided for their attention to charter schools in their job search and what facilitated their familiarity with charter schools, was developed inductively based upon close readings of the interview transcripts. After the codes were created, two coders independently coded 12 interviews and agreed 76% of the time. In cases where the two coders disagreed, they talked about the discrepancy and came to a consensus about how the interview should be coded. To check internal consistency and possible drifting of codes over time, the researcher coded 20% of the remaining interviews twice. This internal consistency agreement was 93%. These reliability measures are in line with standards for qualitative analysis (Miles & Huberman, 1994).

Survey Analysis

Once patterns were identified in the qualitative data about why teacher applicants did or did not consider charter schools in their job search, the decision to apply to a charter school was modeled using the survey data. The number of charter schools to which teacher applicants

applied was not normally distributed; over half the candidates applied to no charter schools. For this reason, application to at least one charter school was modeled as a dichotomous outcome using a binomial logistic regression model with a logit link function:

$$\text{Logit}[\pi(x)] = \ln[\pi(x)/(1-\pi(x))] = \alpha + \mathbf{X}\beta$$

The independent variables used in the model were based on findings from the qualitative analysis, and are discussed below. With the exception of whether the teacher applied to a private or out-of-state school and the total number of applications, all independent variables were collected in the initial survey. The study's longitudinal design allows for teacher characteristics collected at one time point to predict later behavior.

Qualitative Findings

In general, teacher applicants were not very open to charter schools. Only one teacher applicant specifically preferred them and applied almost exclusively to charter schools. Five others were also quite open to them and were willing to give equal consideration to charter and traditional public schools. These six were in the minority, however. Nine applicants did not consider teaching in any charter school. Slightly less than half (12 of 27) of the applicants indicated they would consider charter schools if they could not get a job in a traditional public school. The rest of this section attempts to explain the variation these responses.

Lack of Familiarity as an Informal Barrier

Teacher applicants generally resisted working in schools with which they were not already familiar—charter or otherwise (Cannata, 2010). As most were unfamiliar with charter schools, this became a negative feature for them. For example, one applicant explained his decision by saying, “I don’t have a good reason. I’m just not looking at them. Maybe I should,

but I'm familiar with public schools because that's what I went to and that's where I did my student teaching. Maybe I'm sticking with what I know." The few applicants who were familiar with charter schools did apply to them, however. There are two main mechanisms that facilitated applicants' familiarity with charter schools: their own social context and their teacher preparation institution. A small minority of applicants lived in communities where charter schools were located and had contacts in the schools, making them more likely to seem like employment options. For example, one applicant said, "I have a friend whose son goes to [charter school] and that's one of the schools I'm looking at. It's a charter school here in [city] and they had an open house last weekend. So from that and from talking to her...the school really has my curiosity." For this applicant, charter schools are part of the educational landscape in her community. Indeed, her own daughter attended a charter school in the middle grades. Other applicants who considered charter schools described similar connections. In this way, applicants' social contexts and connections serve as either an informal attractor that draws them to charter schools or an informal boundary that makes charter schools unfamiliar.

Teacher education programs also served as points of contact for some applicants. One applicant described knowing about charter schools because her college serves as an authorizer. She said, "I know [college] has a website for the schools; I don't think they accredit the schools, but they have some type of program where you can go to a link from our college of education and you can find out about those particular charter schools." Applicants from two other colleges described hearing about charter schools from current teachers working in them who are also taking classes from their teacher preparation program. Other training programs did not provide such links. One applicant said, "I wish that we learned about charter schools ... because we

really don't hear anything about it at [college]." Thus the applicants' institutional context also influenced their familiarity with and openness to working in charter schools.

Ambiguous Institutional Status as a Barrier

Labor market segmentation theory focuses attention on institutional distinctions between sectors, and the institutional status of charter schools influenced how teacher applicants thought about charter schools. In particular, most applicants were confused about whether charter schools are public or private. For example, one applicant said,

All I know is that they're not run by the state. I'm pretty sure they get their funding from tuition. ... I don't know how they get public money if they do... It doesn't count as credits toward years of experience for your state certificate. I don't know if that's true or not at all but it just kind of set this tone in my mind that there's some separation between a public school and a charter school.

This applicant had inaccurate information about charter schools and was confused about their public status. Another applicant described charter schools as "similar to a private school but not quite." Just under half of applicants expressed similar uncertainty.

The institutional status of charter schools and their perceived similarity to private schools is important because teacher applicants justified their decision to avoid charter schools by stating their commitment to public education and "public" schools. They did not see charter schools as a desirable option for engaging in the public mission of public education. One applicant said, "I've always just been a strong advocate of public schools ... I don't know if I would necessarily apply to a private or charter school." Another applicant explained that she was not completely opposed to working in a charter school, but preferred to avoid them because "they're in it to make a profit; not really what I think education should be about." As charter schools were defined as outside the public sphere, with goals that conflicted with the public purposes of education, they were seen as undesirable by teacher applicants committed to public education.

The Michigan context is somewhat unusual due to the large number of for-profit education management organizations (EMOs) operating charter schools. This may have contributed to confusion about charter schools' institutional status. To explore whether the Michigan context had a unique influence on applicants' inclination to work in a charter school, I used the survey data to see if teacher applicants who limited their job search to schools outside of Michigan were more or less likely to consider charter schools. While 51 percent of applicants to schools in Michigan applied to charter schools, only 13 percent who only applied outside of Michigan applied to charter schools. All locations to which these applicants applied had charter schools, including some states and metropolitan areas with relatively high percentages of charter schools, such as Arizona, Chicago, California, and Texas. Still, it is possible that applicants were not aware that other states have fewer for-profit companies operating charter schools.

The teacher applicants who did seek out charter schools were not less committed to public education, but they considered public mission in terms of the population served by the school rather than its governance structure. Applicants who wanted to teach in urban schools or saw teaching as a way to give back to their community realized they could do this in charter schools. For example, the applicant who applied nearly exclusively to charter schools said, "They're trying to knock out charter schools and as I tell people, charter schools are not private schools. They are public schools within the state of Michigan. We get your kids that you kick out of those schools, that you don't want back." This applicant is pushing back on the idea that charter schools are more like private schools by noting that they serve a population that is not well served by more traditional schools. These are mostly racial minority applicants who wanted to give back to their community, but included others with a social justice mission. Thus the desire to serve one's community or work in a diverse or traditionally underserved community

allowed some applicants to overcome the barrier created by the institutional status of charter schools.

Salary and Other Labor Market Preferences

In addition to the informal and institutional barriers that kept most teacher applicants from considering charter schools alongside traditional public schools, applicants also had general preferences for features they wanted in a school or district. Not surprisingly, salary, location, and school climate were important and these preferences interacted with their negative perceptions of charter schools. Although most applicants expressed a lack of familiarity and confusion about charter schools, many also had perceptions of employment conditions in them, whether through their social network, personal experiences, rumors, or media accounts. In particular, most applicants described charter schools as offering lower salaries and/or benefits than traditional public schools, which contributed to their overall tendency to avoid working in them. Applicants also had concerns that charter schools would not provide adequate retirement benefits or other benefits that came with joining a union. At least two applicants, however, thought the lack of unionization in charter schools was a positive feature.

Job Market Conditions as a Moderating Factor

A final component in teacher applicants' decisions to apply to charter schools was their assessment of the job market, including the teacher surplus, and likelihood of getting the job they want. Thus the overall job market conditions moderated their preferences to avoid charter schools, causing more applicants to apply to charter schools than otherwise wanted to do so. One applicant said in the first interview, "I think what my plan is now is that I'm going to avoid [charter schools] as long as I can and then possibly if it gets to like July/August and I really feel like I want a teaching position, I might look into it more." For this applicant, working in a charter

school was something to avoid as long as possible but was better than not having any teaching position. Other applicants said they would not apply to a charter school “unless I was desperate” because “a job is better than no job.” Teacher applicants also talked about working in a charter school to gain experience before moving to a traditional public school. For example, one applicant explained that he might apply to a charter school so he could “use that as a stepping stone for workable references; good job experience.” Against the possibility of unemployment, these applicants overcame their initial aversion to charter schools.

Logistic Regression Analysis

The qualitative analysis revealed several factors that seemed to impact decisions to apply to charter schools. After identifying these patterns in the qualitative data, the survey data were used to model the decision to apply to a charter school with a larger sample using a binomial logistic regression model. The dependent variable is the log odds that the teacher applicant applied to at least one charter school. The independent variables and their descriptive statistics are presented in Table 2. Slightly less than half of teacher applicants, 45.6 percent, applied to at least one charter school.

Variables

Because the quasi-private status of charter schools kept many applicants from wanting to teach in them, it was hypothesized that applicants who applied to private schools were less concerned about a school’s institutional status and thus more likely to apply to charter schools.

Teacher applicants who expressed an initial preference for working in an urban school were also hypothesized to be more likely to apply to a charter school. The measure of applicants’ initial preference for an urban school comes from responses on the initial survey about their most desired place to teach.

The surveys had no measure of overall familiarity with charter schools, but did have measures of the mechanisms that appeared to allow applicants to become familiar with them. Applicants that lived in cities or towns with at least one charter school at the time of the initial survey were thought to be more likely to apply to a charter school because they would be more likely to have charter schools as part of their own educational landscape.

The qualitative analysis also suggested that teacher preparation institutions played a role in helping applicants become familiar with charter schools, especially those that authorized charter schools or allowed current charter school teachers to take classes with pre-service teachers. One teacher preparation program from which the sample was drawn authorizes charter schools and two small programs have classes that mix pre-service teachers and current teachers (many of them in local charter schools). Applicants from these three institutions were hypothesized to be more likely to apply to charter schools.

A measure of overall confidence that they would get a job offer was also included to explore how applicants' perceptions of the job market conditions influenced their decision. This item was obtained from the initial survey and is based on a Likert scale item asking them to rate their confidence in getting a job offer. Measuring applicant's confidence is difficult. A second model was also run using a set of dummy variables indicating how many applications the teacher applicant submitted, assuming that more submissions indicated lower confidence in the outcome. Applicants were asked about submission totals in categories, 1 to 10, 11 to 20, 21 to 40, and more than 40. A dummy variable indicating whether the applicant applied to any out-of-state schools is also included to indicate how broad their searches were.

Finally, a measure of the teacher applicant's preference for high salary was included. This was also obtained from a Likert scale item on the initial survey asking them to rate how

strongly they prefer various school characteristics in their job search. The model also included several teacher characteristics, including self-reported ACT score, racial/ethnic identity, and whether they were an older teaching entrant.

Results

The logistic results generally support the patterns evident in the qualitative interviews (see Table 3). Applying to private schools and having an initial preference for teaching in an urban school had large and statistically significant effects on the decision to apply to a charter school. Applicants who applied to private schools had over nine times the odds of applying to a charter school. Applicants who expressed an initial preference for working in an urban school had over five times the odds of applying to a charter school. The social and institutional contexts that would facilitate applicants' familiarity with charter schools also had an effect on their likelihood of applying to them. Applicants that lived in towns with at least one charter school had 2.6 times the odds of applying to work in a charter school. Likewise, applicants who attended a teacher preparation program that authorizes charter schools had 3.5 times the odds of applying to a charter school.

Confidence in getting a job offer and preference for a high salary, however, had no effect on the likelihood of applying to teach in a charter school. Neither did teacher demographic characteristics, although applicants who applied to other states had marginally significantly lower odds of applying to a charter school. This appears inconsistent with the finding from the qualitative data that applicants' sense of the job market conditions moderated their general avoidance of charter schools. This may be due to the confidence measure being a poor proxy for applicants' perception of the job market conditions, or to applicants having inaccurate perceptions of their ability to get a job offer at the start of the search. Due to these possible

limitations of the confidence measure, I ran two additional models as a robustness check. The first alternative model (Model 2 in Table 3) uses the number of applications submitted as a proxy for applicants' confidence, assuming that less confident applicants would send out more applications. There is some evidence that individuals who submitted 21 to 40 applications had about three times the odds of applying to a charter school than applicants who submitted fewer than 11 applications, although the difference is only marginally statistically significant. The second alternative model (Model 3 in Table 3) omits the confidence measures and the results are generally consistent with the full model.

Segmented Labor Markets

The previous two sections examined the extent to which institutional or informal boundaries created distinctions between charter and traditional public schools in teacher labor market decisions. For a segmented labor market to develop, these barriers should also lead to observable differences in the working conditions between school sectors. Applicants who ended up teaching in charter earned salaries that are about \$4,300 less than applicants who end up in traditional public schools (see Table 4). Traditional public school teachers also reported higher levels of satisfaction with teaching in their school than teachers who ended up in charter schools. Half of teachers who ended up working in a charter school indicated in that they planned to apply for another teaching job at the end of the school year, compared to 15 percent of teachers in traditional public schools. Seven percent of charter school teachers did not plan to apply for a new teaching job at the end of the year, while half of traditional public school teachers planned to stay at their current school. While these teachers may change their minds when the next hiring season actually begins, the data do suggest that applicants who ended up working in charter

schools were more likely to wish they were working somewhere else than teacher applicants who ended up working in traditional public schools.

Discussion and Conclusion

The first major research question asked about the extent to which teacher applicants considered charter schools alongside traditional public schools when looking for a teaching job. The data presented here indicate that only a small minority of applicants gave equal consideration to charter and traditional public schools in the job search, with most teachers avoiding charter schools altogether or only including them in their job search if other jobs were not available. That teachers are hesitant to work in charter schools suggests these schools may face difficulties recruiting and retaining teachers beyond what might be expected given the students they serve. These findings can inform teacher recruitment in charter schools, particularly as they highlight prospective teachers' lack of familiarity with charter schools. Charter school operators who focus teacher recruitment efforts on the salary and working conditions should also consider whether prospective teachers' confusion about what charter schools are limits the quality of their applicant pool. Given that many teachers enter the profession due to a commitment to public education and public service, charter schools may need to highlight how teachers can fulfill those goals by teaching in their schools.

These findings may also explain an apparent paradox about teachers in charter schools: that charter schools appear to provide more enticing school environments on many measures yet have lesser qualified teachers (Cannata & Penaloza, 2009). Additional research should focus on charter schools' experience in teacher hiring to explore whether hiring officials in charter schools recognize this challenge and strategies they may use to overcome it. For example, more attention

should be paid to how charter schools use marketing to recruit teachers and how the extent to which they emphasize the public-mission of charter schools, salary, and working conditions.

Both the qualitative and quantitative analyses provide evidence on the second major research question and shed light on how institutional and informal boundaries influence the position charter schools hold in teacher applicants' job searches. Applicants' confusion about the institutional status of charter schools and their perception that charter schools are not public served as a disincentive to work in them. Informal boundaries, such as applicants' preferences for working in a familiar setting and the social contexts that facilitate familiarity with charter schools, also shaped how teacher applicants thought about charter schools in their job search.

Viewed through the lens of a labor market segmentation framework, the data suggest that institutional and informal boundaries between charter and traditional public schools are contributing to a segmented labor market (Dickens & Lang, 1992; Reid & Rubin, 2003). More importantly, decisions about whether to apply to a charter school were less related to perceived salaries or working conditions, but to institutional distinctions between the schools. Thus charter schools may have a potentially limited impact on the overall teacher labor market, even in areas with a substantial charter school sector. Increasing numbers of charter schools that compete with traditional school districts for teachers could possibly affect employment practices throughout the teacher labor market. Yet if most teachers avoid charter schools—as the evidence presented here suggests—and a segmented labor market develops, then charter schools would have a more marginal impact on teacher hiring and staffing patterns. This paper is a first step in understanding these patterns in teacher career decisions. Additional research should examine this more closely and also explore the amount of movement between these sectors to gauge the size of the institutional and informal boundaries identified in this paper.

The importance of salary in teacher applicants' reasons for not pursuing jobs in charter schools conflicts with labor segmentation theory. As previous research (Harris, 2006) and the data in this study suggest that charter school teachers did earn less than their peers in traditional public schools, teacher applicants' inclination to avoid charter schools was partly due to their preferences for where to work, rather than purely institutional or informal boundaries. Teacher applicants care about other features in their job search, but given their lack of familiarity with charter schools, salary differences may have been the most observable. There is limited research on how teachers' preferences for where to work vary by sector, although one study found that teacher preferences help explain observable differences in employment conditions between sectors (Cannata & Penaloza, 2009).

The lack of information or incorrect information that teachers held about charter schools is also noteworthy, even in an area with a large number of charter schools. The applicants in this study admitted to a great deal of confusion about what charter schools or how they operated. Yet even among teacher applicants who indicated they did know about charter schools held a variety of misconceptions about their status as a public school or the requirements of charter schools. This misinformation was present despite the study occurring in a context where charter schools were in large supply and frequently in the local news. Future research should examine where teachers form perceptions of charter schools and other forms of school choice. Given the resistance of traditional education organizations to the charter school movement (Hill, Rainey, & Rotherham, 2006), it is possible that teachers' largely negative perceptions of charter schools stem from their participation in traditional teacher preparation programs and teacher unions.

This study has a number of limitations. Most importantly, the study is limited to a single geographic area in Michigan with a particular population of charter schools and an oversupply of

teachers. Thus the findings cannot be generalized to other areas with different labor market dynamics and a different charter school context. The study has a small sample size and somewhat low response rates. Despite these limitations, this paper is an important first step in exploring the place of charter schools in the teacher labor market. The goal is not to provide a definitive account of how teachers think about charter schools when applying for jobs, but to advance theory and stimulate future research on the intersection between charter schools and the teacher labor market.

Understanding why teachers may seek out or avoid working in charter schools is vital to evaluating the educational success of the charter school movement. As teachers are important components of the educational process, a charter school's ability to recruit and retain high quality teachers is central to their success. The data presented here provide moderate evidence that charter and traditional public schools did not directly compete with each other for teachers but operate in a somewhat segmented labor market. What this study cannot answer is the extent to which this is problematic for charter schools. If charter schools seek to hire a different population of teachers—as some research appears to suggest (Podgursky, 2008)—then these findings are not necessarily cause for alarm. Further, features associated with the core sector in a segmented labor market are not related to teacher or school effectiveness, thus these differences do not imply charter schools are less effective. Additional research should focus on the hiring priorities, recruitment strategies and personnel practices used by charter schools in comparison to traditional public schools. Research in other labor market and policy contexts is also needed to see how the findings from this study in Michigan extend to other contexts.

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Table 1

Descriptive Statistics on Survey and Interview Samples

Characteristic	Survey	Interview	State database
N	160	27	4863
Male	7.6%	22.2%	12.9%
White	82.4	66.7	90.1
African American	6.3	18.5	8.0
Other racial-ethnic minority	11.3	14.8	1.9
Mid-career entrant	34.6	44.4	n/a

Table 2

Descriptive Statistics for Variables in Logistic Regression Model

Variable	Applied charter		Did not apply charter	
	Mean	SD	Mean	SD
Applied to at least one private school	0.55***	0.50	0.16	0.37
Initial preference for urban school	0.16*	0.37	0.05	0.21
Preference for a high salary	3.97	0.89	3.91	0.91
Attended institution that authorizes charter schools	0.29~	0.46	0.16	0.37
Attended institution where classmates work in charter schools	0.19~	0.40	0.09	0.29
Lives in city with at least one charter school	0.55*	0.50	0.38	0.49
Confidence in getting a teaching job	2.15	0.54	2.28	0.53
Number of applications				
1 to 10	0.27**	0.45	0.51	0.50
11 to 20	0.18	0.39	0.14	0.35
21 to 40	0.18	0.39	0.13	0.34
More than 40	0.37*	0.49	0.22	0.42
Applied in other states	0.32*	0.47	0.49	0.50
ACT score	24.83	3.39	24.58	3.11
Racial-ethnic minority	0.18	0.04	0.17	0.04
Older entrant	0.42	0.50	0.31	0.46
N	73		87	

Note: Applicants' confidence in getting a job comes from a survey item in which applicants were asked to rate their chances of getting a teaching job from 1 to 3 (highest). Applicants' preference for a high salary comes from the initial survey asking them to rate how strongly they prefer various school characteristics from 1 (prefer not to have this) to 5 (strongly prefer to have this).

~ p<.1, * p<.05, ** p<.01, *** p<.001

Table 3

Binomial Logistic Regression Results Modeling the Decision to Apply to At Least One Charter School

Variable	Model 1		Model 2		Model 3	
	Odds ratio	Std. error	Odds ratio	Std. error	Odds ratio	Std. error
Applied to private school	9.80***	4.64	8.94***	4.51	10.31***	4.84
Preference for urban school	5.38*	4.25	4.67~	3.70	5.75*	4.55
Preference for high salary	1.21	0.29	1.25	0.30	1.26	0.30
Attended charter authorizer	3.53*	2.06	3.73*	2.27	3.52*	2.03
Institution has classes with charter school teachers	1.91	1.53	1.99	1.68	1.88	1.52
Lives in city with charter schools	2.67*	1.15	3.26*	1.51	2.57*	1.09
Confidence	0.65	0.27				
11 to 20 applications			2.53	1.62		
21 to 40 applications			2.93~	1.83		
More than 40 applications			2.27	1.36		
Applied in other states	0.46~	0.20	0.50	0.23	0.46~	0.20
ACT score	1.03	0.07	1.04	0.07	1.05	0.07
Racial-ethnic minority	1.27	0.71	1.35	0.78	1.32	0.74
Older entrant	1.02	0.59	1.16	0.71	1.04	0.60
N	147		148		148	
Likelihood ratio chi-square	51.3***		55.7***		51.5***	

~ p<.1, * p<.05, ** p<.01, *** p<.001

Table 4

Teacher Applicants' Qualifications, Satisfaction, Salary, and Pupil-Teacher Ratio by Sector of their Current Teaching Job

Characteristic	Charter	Traditional public	N
Salary	\$31,811.11**	\$36,102.62	71
Job satisfaction	3.0**	3.6	80
Plan to apply next year			79
Yes	50.0%**	15.4%	
No	7.1**	50.8	
Not sure	42.9**	33.9	

Note: The smaller N is due to the fewer number of respondents who were able to obtain any teaching job. The sample size N varies due to missing data.

~ p<.1, * p<.05, ** p<.01, *** p<.001. Indicates statistically significant difference from teachers who ended up working in traditional public schools