

A Descriptive Portrait of Teacher Attrition at Tennessee Charter Schools

Matthew Campbell, Nicholas Gesualdi, Rachel Moquin

Urban Teachers Dallas Fort Worth

USA

Abstract

This study offers an analysis of teacher attrition patterns at charter schools in Nashville and Memphis, Tennessee. Using survey data from 121 teachers, the study reports teacher opinion regarding four common causes of teacher attrition, examines the role of demography and school organization on future attrition plans, and offers various regression models in an attempt to predict future plans for the teachers within the sample. Overall, teachers reported lukewarm feelings regarding common causes of teacher attrition, and no background characteristic or school organizational structure held significance for future plans.

Keywords: Teacher attrition; teacher retention; human capital; teacher mobility

A high rate of teacher attrition in American schools is a widespread, perennial problem. Yearly, schools must confront the reality of replacing experienced teachers with well-meaning, but inexperienced replacements. This continual churn of teachers negatively affects many aspects of a school including student academic performance, student attendance rates, organizational trust, and staff culture (Renzulli, Parrott, & Beattie, 2011). Due in part to the ubiquity of teacher attrition, the issue has received much attention and scholarship. The following trends are well documented and help frame an initial understanding of teacher attrition in the United States:

- More teachers leave the classroom than enter it on a yearly basis (Schwartz, Hernandez, & Ngo, 2010).
- The labor market for teachers has become less stable over the last three decades; overall attrition from the field rose from 6.4 percent to 9 percent between 1988 and 2009 (Ingersoll, Merrill, & Stuckey, 2014).
- Different pathways into teaching yield significantly different retention rates for teachers (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009).
- Schools serving high minority populations experience greater difficulty with teacher attrition from year-to-year than majority-white schools (Borman & Dowling, 2008; Smith & Ingersoll, 2004; Hanushek, Kain, & Rivkin, 2001; Lankford, Loeb, & Wyckoff, 2002).
- Teacher attrition occurs more often in response to school demography than to salary issues or compensation schedules (Lankford et al, 2002).

- The current teacher labor portrait is both “greener” and “grayer” than ever before; the largest subgroups within the overall teaching population are beginning teachers and those nearing retirement (Ingersoll et al., 2014).

Charter schools are not immune to teacher attrition. In fact, charters experience higher levels of teacher attrition from year to year than their public school counterparts. Stuit and Smith (2012) found charter school teachers are 130 percent more likely to leave the profession than remain in their schools and 76 percent more likely to move schools after a year of teaching than traditional public school teachers. Charter school teachers also have less experience than their traditional school peers, are more likely to lack advanced degrees or full certification and exercise job choice more freely when selecting a job than traditional public school teachers (Cannata & Penaloza, 2012). In an effort to understand the current labor portrait, we explored the following project questions within the charter school labor market in Tennessee:

1. How do teachers at Tennessee Charter Schools rate their satisfaction regarding four common causes of teacher attrition (instructional support, compensation, school conditions, burnout)?
2. How do teacher characteristics (gender, race, age, teaching experience, educational attainment) influence teachers’ attrition plans at Tennessee Charter Schools?
3. How do variations in charter school characteristics (network CMO vs. local CMO vs. standalone school, established vs. startup, elementary vs. secondary) influence teachers’ attrition plans at Tennessee Charter Schools?

Literature Review

The extant literature draws clear connections to teacher attrition from many sources, but some of the strongest connections come from four factors: instructional support, compensation, school conditions, and burnout. Beyond these influences, a teacher’s personal characteristics have considerable influence on broad attrition patterns, and a charter school’s organizational structure/governance also influences teacher decisions to stay or leave the classroom.

Common Causes of Attrition

The instructional support a teacher receives has an inexorable link to their retention (Ingersoll, 2001; Borman & Dowling, 2009; Grissom, 2011). As Stuit and Smith (2012) report, “The most common reason given by charter school teachers for voluntarily leaving the teaching profession was that they were dissatisfied with the school,” and “47 percent of charter school teachers who voluntarily switched to different schools did so because they were dissatisfied with either the workplace conditions or administrator support in their previous schools” (p. 3). Teachers who choose to leave their schools frequently reference poor school management as a factor (Johnson & Birkeland, 2003). However, within the domain of

instructional support, teacher mentoring networks have a positive impact on retention (Ingersoll & Strong, 2011).

Compensation also affects teacher attrition, albeit less influentially than the other factors under scrutiny (Shen, 1997; Ingersoll, 2001; Borman & Dowling, 2008). Allen (2005) found that while increasing compensation is connected to increased retention rates, working conditions might trump salary as a factor in retention. According to Gross (2011), compensation is one of the top five factors that influences charter school teachers' retention rates, but it is number five on the list.

School conditions include factors such as physical features of the school building, organizational structures that define positions in the school, the cultural features of the school (values, traditions, and norms), psychological features of the school (mindsets), and educational features (curriculum and management) of the school (Johnson, 2006). Student behavior is another key component of working/school conditions. Schools with higher instances of behavioral issues see higher rates of teacher attrition (Simon & Johnson, 2013; Ladd, 2011; Marinell & Coca, 2013). As it relates to working conditions, high-poverty schools can pose unique challenges for teacher turnover (Simon & Johnson, 2013; Johnson, Kraft, & Papay, 2012). Simon and Johnson (2013) report, "Mounting evidence suggests that the seeming relationship between student demographics and teacher turnover is driven not by teachers' responses to their students, but by the conditions in which they must teach and their students are obliged to learn" (p. 1). Poor facilities, lack of sufficient funds, and assignment structures all factor into teachers' decisions.

Burnout is another key factor related to teacher attrition. Longer hours paired with the increased teacher decision-making that often comes with work in a charter school can create burnout (Malloy & Wohlstetter, 2003). Torres (2014) notes that an unsustainable workload is considered the primary cause of turnover in charter schools, as one in three teachers who rated their workload as "unmanageable" left their school compared to one in ten who did not rate their workload this way. In general, charter school teachers report significantly higher workloads than their traditional public school peers (Ni, 2012).

Teacher Characteristics and Attrition

A broad catalog of literature highlights the influence of various teacher characteristics on teachers' likelihood of attrition. As Stuit and Smith (2012) have unfortunately assessed, "Charter schools tend to hire people who are at greater risk of both leaving the profession and switching schools" (p. 3). In their seminal meta-analysis of teacher attrition, Borman and Dowling (2008) described gender as a prevalent teacher characteristic connected to teacher attrition and found women to be 1.3 times more likely to leave teaching than their male counterparts. However, some findings do not document a relationship between gender and differential attrition rates (Strunk & Robinson, 2006).

Describing the effects of a teacher's race on their likelihood of attrition is a two-way street. In addition to considering the independent influence of a teacher's race, factoring in the relationship between

a teacher's race and the race of his or her students is vital (Renzulli, et al., 2011; Mueller, Finley, Iverson & Price, 1999). Notably, white teachers who teach in racially mismatched schools are more likely to leave the profession (Strunk & Robinson 2006; Borman & Dowling 2008; Renzulli, et al., 2011). As the typical charter school teaching population is majority-white, this represents a frequent point of tension. Further, schools with a higher percentage of minority students experience teacher attrition at higher rates than other schools (Strunk & Robinson, 2006).

Various studies have demonstrated the salience of age as a factor affecting teacher attrition, with younger teachers leaving at higher rates than their older counterparts (Borman & Dowling, 2008; Miron and Applegate, 2007; Ingersoll, 2001). Charter schools are typically staffed by younger, inexperienced teachers compared to traditional public schools (Stuit and Smith, 2012; Gross & DeArmond, 2010), with at least double the number of teachers possessing five years of experience or less (Burian-Fitzgerald, Luekens, & Strizek, 2004). As young teachers begin their career in any school setting, they stand the highest chance of leaving the field during their first five years, with nearly half of beginning teachers departing the profession within this time window (Smith & Ingersoll, 2004; Fry, 2009; Hanushek, 2007). And while they may leave the profession at such drastic rates, charter school teachers are more likely to enter the field from a selective undergraduate university than their traditional public school counterparts (Baker & Dickerson, 2006; Burian-Fitzgerald, et al., 2004). They are also less likely to possess a master's degree (Cannata & Penaloza, 2012).

Charter School Organization and Attrition

Community-based, single-site schools have been found to be less-likely to expand, which may allow for school leaders to keep close control over operations and mission-adherence (Henig, Holyoke, Brown, & Lacireno-Paquet, 2005). Another consideration is the age of the school and its impact on attrition patterns. Differences have been identified between the success of long-standing public schools that have been converted to charters and startup charter schools (Henig et al., 2005). Among these differences is the observation that start-up schools face unique and often larger challenges than established schools (Zimmer et al., 1999). These challenges may include curriculum design, developing accountability metrics, and selecting and refining leadership structures and systems (Griffin & Wohlstetter, 2001). Due to these unique challenges, charter authorizers report spending more time in startup charter schools to ensure close oversight (Zimmer et al., 2003).

Startup charters often suffer from the "new school effect" in which performance of the school starts off low and remains so for the first few years of operation (Kelly & Loveless, 2012). In general, it is difficult to unpack exactly what factors teachers are considering, if any, related to organizational structure or age of school due to the general finding in the extant literature that charter schools, even those of similar organizational structure or age, are so varied; two schools the same age with the same organization structure may be vastly different from one another due to the autonomy often granted to charter schools (Brown, Henig, Lacireno-Paquet, & Holyoke, 2004).

Methods

Employing a mixed-methods approach, we attempted to survey teachers at the 102 charter schools located in Nashville and Memphis, Tennessee. The specific items on our survey were adapted from original indices developed by the federal government for use in National Center for Education Statistics surveys, including the 2011-2012 Schools and Staffing Survey and the 2012-2013 Teacher Followup Survey (National Center for Education Statistics, n.d.). Additional items were adapted from original surveys developed for the 2012 North Carolina Teacher Working Conditions Survey (2012), and for a doctoral dissertation research study at Virginia Polytechnic Institute and State University (Giacometti, 2005). All of the original items were created with nationally representative samples and are, therefore, presumed to be highly reliable. Each of the items was selected for the strength of its validity in accurately measuring the individual constructs. Additionally, the face validity for each was discerned by our team. Scale creation was informed by a principal component analysis completed for each scale, whereby all scales yielded a Cronbach's Alpha's over 0.8, indicating a high degree of reliability.

After IRB approval, the survey was emailed to the principals of the 102 charter schools in our sample. We did not have individual rosters of teacher contact information, so we requested that principals distribute the survey to their faculty. To do this, we sent introductory emails which included information about our project, a stock email to teachers, and instructions to principals to send out to staff on our behalf. After the initial round of emails, we waited approximately two weeks and then sent principals a follow-up email to encourage participation a second time. Our survey remained open for six weeks, and we were able to collect 131 responses from 25 different school sites.

Sample Details

The average school had a response rate of 21%, although it ranged from 4 to 52%. Most of our sample consisted of teachers under 30 years old (68.7%), teachers who are female (72.7%), teachers who are Caucasian (76.8%), and teachers who have master's degrees (60.6%). Almost one in three teachers surveyed did not have a degree specifically in education (29.3%). One in ten teachers in our sample are first year teachers, and more than three quarters of our sample has less than five years of teaching experience (76.8%). This sample composition is generally reflective of charter school teachers in other research (Cannata & Penaloza, 2012). Geographically, 78.5% of our sample taught in Memphis (102 teachers) while only 21.5% (28 teachers) taught in Nashville charter schools. This is representative of the distribution of charter school between the two cities, as 72% (73 schools) are located in Memphis, while 28% (29 schools) are located in Nashville.

Data Analysis

We ran a variety of statistical tests to compare means between the groups that made up our units of analysis for each research question. For question one, we examined scale scores for each variable under

scrutiny in an effort to compare teachers’ relative satisfaction regarding instructional support, compensation, and school conditions. We also examined teacher responses on our burnout scale to gauge teachers’ feelings in relationship to this construct. For question two, we analyzed the influence of various teacher characteristics and teachers’ purported attrition plans. For question three, we grouped teachers according to several types of charter school characteristics and examined the relative differences in teachers’ purported attrition plans. Depending on the nature of the variables being compared, we utilized Cross tabs and Chi Square Tests of Independence, T-Tests of the Difference in Means, and ANOVA (including a Tukey Analysis). Initially, we had hoped to incorporate longitudinal teacher attrition data into our analysis, but we were unable to secure data to run this analysis. In its place, we created a dichotomous future plans variable (plan to remain teaching in my building and plan to leave my building/unsure) in order to weigh teachers’ future plans. Due to the limited number of responses, we combined responses from the “unsure” and “plan to leave” categories to limit participants’ likelihood of being identified.

Recognizing the descriptive value of qualitative data, we also posed several open-ended questions within the survey that allowed participants to identify their rationale for leaving or staying at their current school site. After reviewing participants’ responses, the research team independently categorized each answer within our conceptual framework or placed answers in an “other” category if they did not align squarely within our design.

Findings

How do teachers at Tennessee Charter Schools rate their satisfaction regarding four common causes of teacher attrition (instructional support, compensation, school conditions, burnout)?

Table 1 below reports the descriptive statistics for each common cause of teacher attrition. Other than the burnout scale, a higher score indicates greater satisfaction concerning the variable; for the burnout scale, a higher number indicates a greater feeling of burnout.

Table 1:
Descriptive statistics for individual scales

Scale	N	Minimum	Maximum	Mean	SD
Burnout	109	1.42	5	3.59	0.81
School Conditions	121	1	4.5	3.48	0.64

Instructional Support	101	1	4.47	3.30	0.68
Compensation	117	1	5	3.28	0.77

Instructional Support. According to our qualitative findings, teachers from our sample reported feeling well supported by their administrations, One teacher stated, “I have so much respect for my Principal and Assistant Principal. I don't want to work for anyone else right now.” Numerous others shared this sentiment, using words like “trust,” “respect,” and “valued” to describe their relationships with school leaders. In fact, of those who report being likely to remain in their schools for the next year, a total of seventeen respondents named positive relationships and support from their administrators as positive contributing factors. One teacher said, “The support we receive here is unparalleled to anything I have ever experienced.”

As the data shows, however, not all teachers feel overwhelmingly positively about the instructional support they are receiving, as the mean is close to neutral. As one teacher stated, “I feel supported by [the other teachers at my school] more than I do by my administration.” The importance of peer support is evident in numerous comments made by teachers in our sample, like the following: “I feel valued and respected in this position, and I feel like I'm able to be an effective teacher at my school. The staff is supportive and professional, and the students, for the most part, are eager to learn” and “I love my school. It feels like a family, with an incredibly supportive administration and close staff.” These teachers indicate that support from both leadership and peers are significant. These types of peer-to-peer support systems can be impactful, but the extant literature makes clear that a supportive administration is also necessary.

Compensation. The mean for the compensation scale was 3.28. This may indicate that compensation is not a major consideration for teachers when thinking about job satisfaction, which is consistent with the trends in the literature related to teacher compensation. Within our qualitative data, fewer teachers mentioned compensation--either positively or negatively--as an independent consideration for their future plans. Several teachers mentioned being “paid well,” but it was discussed in the context of other more significant factors for them.

School Conditions. The mean for the school conditions scale was 3.48. Two teachers mentioned feeling negatively about the number of hours they work compared to the amount they are paid, but also mentioned this briefly and focused their comments largely on other factors. This is another area where teachers collectively do not have strong feelings positively or negatively, but it does trend closer to five and is a higher mean than that of the instructional support and compensation scales.

According to the qualitative data, this area is a clear success for Tennessee charter schools, especially in how teachers discuss the mission of their schools and the positive impact that has on their career decisions. There is the sense that teachers, as one participant put it, “feel like a part of something big.” Within our sample, many teachers expressed feeling positively about their working conditions. One claimed to feel like they work in “a highly functioning environment” while another mentioned loving the “orderliness in the building.” Many of these factors are within the control of the school leaders, so the positive feelings teachers have for their instructional support possibly seep into this category as well.

Burnout. The mean of the burnout scale was 3.59. The mean is still close to neutral, but of our four scales, this scale is the closest to one end of the spectrum. As previously discussed, a higher mean on the burnout scale (closer to five) indicates that teachers are feeling less burnt out, while a lower score (closer to one) would indicate that they feel more burnt out. As it relates to burnout, one teacher stated, “The school that I work at requires us to work hours that make it hard to cultivate a life outside of the school.” However, our qualitative findings affirm the idea that if teachers feel more connected to the work they do, they may not feel the effects of burnout as strongly. One teacher from our sample stated, “The days are exhausting and draining, but I find teaching rewarding and this is what I feel called to do.”

How do teacher characteristics (gender, race, age, teaching experience, educational attainment) influence teachers’ attrition plans at Tennessee Charter Schools?

Among the various teacher characteristics that contribute to this increased likelihood, we collected information regarding each teacher’s gender, race, age, years of teaching experience, and educational attainment. Below, we detail the intersection between these characteristics and teachers’ reported plans to remain in their current school or depart. Due to our sample size, we report future plans in two categories for each background characteristic: those planning to remain in their current school and those unsure or planning to leave their current school. We also report percentages by the background characteristic under scrutiny.

Gender. Overall, our sample was 75% female, which reflects the high female population of the current teaching workforce. Of male teachers in our sample, 13 plan to continue teaching in their current building and 11 plan to leave or are unsure. This represents a near even divide (54% and 45%, respectively). For female teachers, 44 plan to continue teaching in their current building and 28 plan to leave or are unsure. This split is not as even as men, with a 61% to 39% difference. To measure the statistical value of these trends, we performed a Chi-Square Test of Independence: $X^2 (1 N=98)=.360, p=0.55$. In our sample, there is not a statistically significant relationship present between gender and teachers’ future plans. This finding is similar to existing studies that fail to document any significant relationship between gender and differential attrition rates (Strunk & Robinson, 2006).

Race. As outlined above, our sample is overwhelmingly Caucasian (77% of total sample). Within this group, 68% plan to teach in their current building next year and 32% are unsure or plan to leave. The

next largest demographic group, African Americans (10% of total sample), has 20% of teachers planning to teach in their current building and 80% unsure or planning to leave. While there are other races within our sample, the size of each race band limits the value of any individual comparisons between Hispanic, Pacific Islander, or Mixed-Race teachers. There were additionally five teachers that identified as Other. For practical value, we combined these racial groups into a third racial category with twelve total teachers. This group, composed of several independent racial categories, has 33% of its teachers planning to remain and 67% planning to leave or unsure.

To measure the statistical value of these trends, we performed a Chi-Square Test of Independence and compared the future plans of the two largest racial groups: Caucasian teachers and African American teachers. There was a significant relationship present: $X^2(5, N=98)=15.12, p=0.01$, and while this result is suggestive, there are concerns about the generalizability of these results due to the small sample size of African American teachers.

Age. Of teachers in our sample aged 18-25, 58% plan to remain in the current building next year and 42% are unsure or plan to depart. Those aged 26-35 had nearly identical groupings with 59% planning to remain in their current building and 41% unsure or planning to depart. The oldest and smallest age grouping, those aged 36 and older, have the highest percentage of stayers with 64% planning to remain in their current building and 36% unsure or planning to leave. To measure the statistical value of these trends, we performed a Chi-Square Test of Independence: $X^2(2, N=98)=.182, p=0.91$. There is not a statistically significant relationship present when considering different age groups and their future plans.

Experience. Using five years as a dividing line, we delineated two categories of teachers within our samples: novice teachers (four years or less teaching experience) and veteran teachers (five or more years). Of the 65 novice teachers we surveyed, 39 plan to continue teaching in their current building, and 26 plan to leave or are unsure (60 & 40%, respectively). Of the 33 veteran teachers we surveyed, 19 plan to continue teaching in their current building, and 14 plan to leave or are unsure (58 & 42%, respectively). Within both groups, the largest portion of teachers plan to remain teaching within their building. To measure the statistical value of these trends, we performed a Chi-Square Test of Independence: $X^2(1, N=98)=.053, p=0.82$. There is no statistical significance between the differences relating to years of experience.

Educational Attainment. To understand how educational attainment affects teachers' future plans within our sample, we compared two groups of teachers: those possessing only a bachelor's degree and those possessing a master's degree or higher. Of teachers in our sample, 36% have only a bachelor's degree and 64% have a master's degree or higher. For those teaching with only a bachelor's degree, 71% (25) plan to remain in their current building and 29% (10) plan to leave or are unsure about next year. For those teaching with a master's degree or higher, 52% (33) plan to remain in their current building and 47% (30) plan to leave or are unsure about next year. To test the statistical significance of these findings, we ran a

Chi-Square Test of Independence: $X^2(1, N=98)=3.38, p=0.06$. There is no statistical significance between varying degree levels and future plans.

How do variations in charter school characteristics (network CMO vs. local CMO vs. standalone school, established vs. startup, elementary vs. secondary) influence teachers' attrition plans at Tennessee Charter Schools?

Organizational Structure. To uncover whether organizational structure impacts teacher attrition, we divided our findings among network CMOs, local CMOs, and standalone, single-site schools. Of the 28 teachers in local network schools in our sample, 15 (54%) plan to remain in their current schools, while 13 (46%) plan to leave or are unsure. Of the 7 teachers in national network schools, 3 (43%) plan to remain in their current schools, while 4 (57%) plan to leave or are unsure. Of the 63 standalone school teachers, 40 (64%) plan to remain in their current schools, while 23 (34%) plan to leave or are unsure. The differences among these groups were not statistically different: $X^2, (2 N=98) = 1.62, p=0.45$. The extant literature in this area may help explain why of our sample, standalone school teachers report the highest percentage of planning to remain in their schools next year. Within our qualitative findings, two teachers in our sample expressed this sentiment; one stated, "I am a founding staff member of my school, and feel obligated to my students and families" and another stated, "[My school] is part of a unique and wonderful community from the students to the stakeholders." This data may be clouded by findings that strong mission-oriented charters find success, and many of the charter schools from our sample, irrespective of management type, are mission-oriented (Henig et al., 2005). Another key component of this breakdown is the existing trend that independent charter schools, i.e. those not heavily managed by authorizers, feel more in control of their decisions and operations (Zimmer et al., 1999).

Established vs. Startup. According to our quantitative findings, of the 12 teachers in schools less than three years old in our sample, 8 (67%) plan to remain in their current schools, while 4 (33%) plan to leave or are unsure. Of the 86 teachers in schools more than three years old, 50 (58%) plan to remain in their current schools, while 36 (42%) plan to leave or are unsure, however these group differences are not statistically significant: $X^2 (1 N=98).317, p=0.57$. In general, it is difficult to unpack exactly what factors teachers are considering, if any, related to organizational structure or age of school due to the general finding in the extant literature that charter schools, even those of similar organizational structure or age, are so varied; two schools the same age with the same organization structure may be vastly different from one another due to the autonomy often granted to charter schools (Brown, Henig, Lacireno-Paquet, & Holyoke, 2004).

Elementary vs. Secondary. Our sample indicates that there is no significant difference in plans between elementary and secondary school teachers, which is inconsistent with what the extant literature shows. Ingersoll (2001) reports that a statistically significant difference in turnover exists between elementary and secondary schools, and that secondary grades experience the highest levels of teacher

turnover, specifically grades 6, 7, 10, and 11 (Miron & Applegate, 2007). There were both no practically or statistically significant differences in grade level plans to return or leave among teachers in our sample: $\chi^2(1, N=98) = .012, p=0.91$.

Limitations

Due to our survey being distributed by principals, one threat to internal validity is that some teachers may have felt coerced into taking the survey or worried the principal would see the results. We assured teachers that the data we received would be confidential at the beginning of our survey instrument, however some teachers may not have been convinced by our statement as the survey request came from their principal. If teachers were fearful that their principals might have access to their responses, this is another factor that may explain the slightly positive skew in our findings.

Another consideration to make regarding our sample is because our survey was voluntary, we imagine that it took some intrinsic motivation for teachers to complete. This increases the likelihood that teachers who took the time to complete the survey had strong feelings they wanted to share; they were likely either very satisfied or very unsatisfied. In the case of our sample, the slightly positive skews of our means could indicate that teachers in our sample were more satisfied than teachers who opted not to complete it.

A final consideration is the time of year our survey was administered. Teachers completed our survey in the late fall during the first half of the school year. Due to this timing, teachers may not have had a clear idea yet what their plans would be for the following school year. Administration of this survey in the spring semester may lend itself to more realistic self-reporting of future plans from teachers.

Beyond those threats to internal validity, there are several threats to external validity to consider. First, there is some concern about the generalizability of our sample. Our sample does not exactly mirror what is known about the characteristics of charter schools teachers in the larger population. Two areas we have identified in particular that limit generalizability are: 1) our sample is comprised of a higher percentage of teachers with advanced degrees than has been reported of charter school teachers across the country and 2) our sample has fewer years of experience than national averages for charter school teachers (Cannata, 2008). A final limitation to consider is that for statistical purposes, we found it necessary to combine survey response data of teachers who reported that they plan to leave and teachers who reported that they were unsure whether they would return or not. This muddles our findings in some ways, because some of the teachers who report feeling unsure at this time may ultimately decide to remain at their schools.

Scholarly Significance

Our study adds to an increasing catalog of literature exploring the causes of teacher attrition. As districts attempt to confront the perennial threat of teacher attrition—and manage the litany of negative

effects resulting from teachers departing—new approaches must be combined with what is demonstrably effective in retaining teachers. By conducting a multi-city study across a variety of building contexts, we have highlighted the benign influence of several factors and the relative import of others for charter school teachers in Tennessee.

References

- Achievement School District. (2016). “Memphis school guide.” Retrieved from <http://achievementschooldistrict.org/memphis-school-guide/>
- Allen, M. B. (2005). Eight questions on teacher recruitment and retention: What does the research say? Education Commission of the States. Retrieved from <http://www.ecs.org/html/educationissues/teachingquality/trrreport/home/teacherrecruitmentretention.pdf>
- Allensworth, E., Ponisciak, S., & Mazzeo, C. (2009). The schools teachers leave: Teacher mobility in Chicago Public Schools. Chicago, IL: Consortium on Chicago School Research, University of Chicago. Retrieved from <https://consortium.uchicago.edu/publications/schools-teachers-leave-teacher-mobility-chicago-public-schools>
- Baker, B. D., & Dickerson, J. L. (2006). Charter schools, teacher labor market deregulation, and teacher quality: Evidence from the schools and staffing survey. *Educational Policy*, 20(5), 752-778. <https://doi.org/10.1177/0895904805284118>
- 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. <https://doi.org/10.3102/0034654308321455>
- Boyd, D., Grossman, P. L., Lankford, H., Loeb, S., & Wyckoff, J. (2009). Teacher preparation and student achievement. *Educational Evaluation and Policy Analysis*, 31(4), 416-440. <https://doi.org/10.3102/0162373709353129>
- Brown, H., Henig, J., Lacireno-Paquet, N., & Holyoke, T. T. (2004). Scale of operations and locus of control in market- versus mission-oriented charter schools. *Social Science Quarterly*, 85(5), 1035-1051. <http://dx.doi.org/10.1111/j.0038-4941.2004.00259.x>
- Brown, W. A., & Yoshioka, C. F. (2003). Mission attachment and satisfaction as factors in employee retention. *Nonprofit Management and Leadership*, 14(1), 5-17. <https://doi.org/10.1002/nml.18>
- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Cambridge, MA: Harvard Education Press.
- Bulkley, K. E. (2003). Balancing act: Educational management organizations and charter school autonomy. In K. E. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools: What's happened and what's next*. (121-158). New York, NY: Teachers College Press.
- Burian-Fitzgerald, M., Luekens, M. T., & Strizek, G. A. (2004). Less red tape or more green teachers: Charter school autonomy and teacher qualifications. In K. E. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools: What's happened and what's next*. (11-31). New York, NY: Teachers College Press.

- Cannata, M. (2008). Teacher qualifications and work environments across school types. Boulder, CO: Education Policy Research Unit, University of Colorado. Retrieved from <https://nepc.colorado.edu/publication/teacher-qualifications-and-work-environments-across-school-types>
- Cannata, M., & Penaloza, R. (2012). Who are charter school teachers? Comparing teacher characteristics, job choices, and job preferences. *Education Policy Analysis Archives*, 20(29), 1-25. <http://dx.doi.org/10.14507/epaa.v20n29.2012>
- Curtis, R. E., & Wurtzel, J. (2010). *Teaching talent: A visionary framework for human capital in education*. Harvard Education Press: Cambridge, MA.
- DeArmond, M., Gross, B., Bowen, M., Demeritt, A., & Lake, R. (2012). *Managing talent for school coherence: Learning from charter management organizations*. Center on Reinventing Public Education, University of Washington. Retrieved from https://www.crpe.org/sites/default/files/pub_cmo_managingtalent_may12.pdf
- Fry, S. (2009). Characteristics and experiences that contribute to novice elementary teachers' success and efficacy. *Teacher Education Quarterly*, 36(2), 95-110. <https://files.eric.ed.gov/fulltext/EJ857478.pdf>
- Giacometti, K. (2005). *Factors affecting job satisfaction and retention of beginning teachers* (Doctoral dissertation, Virginia Polytechnic Institute and State University). Retrieved from <http://scholar.lib.vt.edu/theses/available/etd-11152005-172907/unrestricted/final.pdf>
- Griffin, N. C., & Wohlstetter, P. (2001). Building a plane while flying it: Early lessons from developing charter schools. *Teachers College Record*, 103(2), 336-365. <http://dx.doi.org/10.1111/0161-4681.00118>
- Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, 113(11), 2552-2585. Retrieved from: <https://www.tcrecord.org/Content.asp?ContentId=16144>
- Gross, B. (2011). *Inside charter schools: Unlocking doors to student success*. Seattle, WA: University of Washington. Retrieved from <https://www.crpe.org/publications/inside-charter-schools-unlocking-doors-student-success>
- Gross, B., & DeArmond, M. (2010). *Parallel patterns: Teacher attrition in charter vs. district schools*. Seattle, WA: Center on Reinventing Public Education, University of Washington. Retrieved from <https://www.crpe.org/publications/parallel-patterns-teacher-attrition-charter-vs-district-schools>
- Hanushek, E. A. (2007). The single salary schedule and other issues of teacher pay. *Peabody Journal of Education*, 82(4), 574-586. Retrieved from: [https://hanushek.stanford.edu/sites/default/files/publications/hanushek.2007%20PeabodyJEd%2082\(4\).pdf](https://hanushek.stanford.edu/sites/default/files/publications/hanushek.2007%20PeabodyJEd%2082(4).pdf)
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2001). Why public schools lose teachers (Working Paper 8599). Cambridge, MA: National Bureau of Economic Research. <http://dx.doi.org/10.3386/w8599>

- Heider, K. L. (2005). Teacher isolation: How mentoring programs can help. *Current Issues in Education*, 8(14), 1-7. Retrieved from <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1686>
- Henig, J. R., Holyoke, T. T., Brown, H., & Lacireno-Paquet, N. (2005). The influence of founder type on charter school structures and operations. *American Journal of Education*, 111(4), 487-588. <https://doi.org/10.1086/431181>
- Henry, G., Zimmer, R., Kho, A., & Pham, L. (2017). Recruitment and retention of teachers in Tennessee's achievement school district and iZone schools. Tennessee Education Research Alliance. Retrieved from <https://s3.amazonaws.com/vu-news/files/20170214133034/Teacher-Retention-in-ASD-and-iZone-v4.pdf>
- Ingersoll, R., Merrill, L., & Stuckey, D. (2014). Seven trends: The transformation of the teaching force. CPRE Research Reports. Retrieved from http://repository.upenn.edu/cpre_researchreports/79
- Ingersoll, R. & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Education Research*, 81(2), 201-233. <https://doi.org/10.3102/0034654311403323>
- Ingersoll, R. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534. Retrieved from https://repository.upenn.edu/cgi/viewcontent.cgi?article=1093&context=gse_pubs
- Johnson, S. M. (2006). The workplace matters: Teacher quality, retention, and effectiveness. Working Paper. National Education Association Research Department. Retrieved from <https://files.eric.ed.gov/fulltext/ED495822.pdf>
- Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal*, 40(3), 581-617. <https://doi.org/10.3102/00028312040003581>
- Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record*, 114(10), 1-33. Retrieved from https://scholar.harvard.edu/files/mkraft/files/johnson_kraft_papay_teacher_working_conditions_final.pdf
- Kelly, A. P., & Loveless, T. (2012). Comparing new school effects in charter and traditional public schools. *American Journal of Education*, 118(4), 427-453. Retrieved from <https://www.journals.uchicago.edu/doi/abs/10.1086/666370>
- Kowal, J., Hassel, E. A., & Hassel, B. C. (2007). Teacher compensation in charter and private schools. Center for American Progress. Retrieved from https://www.americanprogress.org/wp-content/uploads/issues/2007/02/pdf/teacher_compensation.pdf
- Ladd, H. F. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation and Policy Analysis*, 33(2), 235-26. <https://doi.org/10.3102/0162373711398128>

- Lankford, H., Loeb, S., & Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis*, 24(1), 37-62. Retrieved from <http://epa.sagepub.com/content/24/1/37>
- Malloy, C. L. & Wohlstetter, P. (2003). Working conditions in charter schools: What's the appeal for teachers? *Education and Urban Society*, 35(2), 151-160. <https://doi.org/10.1177/0013124502239393>
- Marinel, W. H. & Coca, V. M. (2013). Who stays and who leaves? Findings from a three-part study of teacher turnover in NYC middle schools. New York: The Research Alliance for NYC Schools. Retrieved from https://steinhardt.nyu.edu/scmsAdmin/media/users/sg158/PDFs/ttp_synthesis/TTPSynthesis_Report_March2013.pdf
- Miron, G., & Applegate, B. (2007). Teacher attrition in charter schools. East Lansing, MI: Great Lakes Center for Education Research and Practice. Retrieved from: http://greatlakescenter.org/docs/Research/Miron_Attrition.pdf
- Mueller, C. W., Finley, A., Iverson, R. D., & Price, J. L. (1999). The effects of group racial composition on job satisfaction, organizational commitment, and career commitment in the case of teachers. *Work and Occupations*, 26(2), 187-219. <https://doi.org/10.1177/0730888499026002003>
- Murphy, J. (2016). *Leading school improvement: A framework for action*. West Palm Beach, FL: Learning Sciences International.
- National Center for Education Statistics. (n.d.). Schools and staffing survey. Retrieved from <http://nces.ed.gov/surveys/sass/questionnaire.asp>
- Newmann, F. M. & Wehlag, G. G. (1995). Successful school restructuring: A report to the public and educators by the Center on Organization and Restructuring Schools. Madison, WI: Board of Regents of the University of Wisconsin System. Retrieved from <https://files.eric.ed.gov/fulltext/ED387925.pdf>
- Ni, Y. (2012). Teacher working conditions in charter schools and traditional public schools: A comparative study. *Teachers College Record*, 114(3), 1-26. Retrieved from: <https://www.tcrecord.org/Content.asp?ContentId=16301>
- North Carolina Teacher Working Conditions Initiative. (2012). North Carolina teacher working conditions main survey. Retrieved from <http://www.ncteachingconditions.org>
- Price, H. E. (2012). Principal–teacher interactions: How affective relationships shape principal and teacher attitudes. *Educational Administration Quarterly*, 48(1), 39-85. <https://doi.org/10.1177/0013161X11417126>
- Renzulli, L. A., Parrott, H. M., & Beattie, I. R. (2011). Racial mismatch and school type: Teacher satisfaction and retention in charter and traditional public schools. *Sociology of Education*, 84(1), 23–48. <https://doi.org/10.1177/0038040710392720>
- Schwartz, R., Hernandez, M., & Ngo, J. (2010). Attracting and retaining strong teachers. In R. E. Curtis & J. Wurtzel (Eds.), *Teaching talent: A visionary framework for human capital in education* (113-128). Cambridge, MA: Harvard Education Press.

- Shelby County Schools. (2016). "About us." Retrieved from <http://www.scsk12.org/about/>
- Shen, J. (1997). Teacher retention and attrition in public schools: Evidence from SASS91. *Journal of Educational Research*, 91(2), 81-88. Retrieved from https://www.jstor.org/stable/27542134?seq=1#metadata_info_tab_contents
- Simon, N. S., & Johnson, S. M. (2013). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, 117(3), 1-36. Retrieved from <https://www.tcrecord.org/Content.asp?ContentId=17810>
- Smith T., & Ingersoll, R. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Education Research Journal*, 41(3), 681-714. <https://doi.org/10.3102/00028312041003681>
- Strunk, K., & Robinson, J. (2006). Oh, won't you stay: A multilevel analysis of the difficulties in retaining qualified teachers. *Peabody Journal of Education*, 81(4), 65-94. Retrieved from https://www.tandfonline.com/doi/abs/10.1207/s15327930pje8104_4
- Stuit, D. A., & Smith, T. M. (2012). *Teacher turnover in charter schools*. Nashville, TN: National Center on School Choice, Peabody College, Vanderbilt University. Retrieved from https://www.researchgate.net/publication/255600494_Teacher_Turnover_in_Charter_Schools
- Tennessee Charter School Center. (2015). 2014-2015 State of the sector: Tennessee charter schools. Nashville, TN. Retrieved from: <http://www.tnchartercenter.org/sites/554/uploaded/files/TNCharterSOS201415WebVersionV2.pdf>
- The New Teacher Project. (2012). *The irreplaceables: Understanding the real retention crisis in America's urban schools*. Retrieved from: <https://tntp.org/publications/view/the-irreplaceables-understanding-the-real-retention-crisis>
- Torres, A. C. (2014). Is this work sustainable? Teacher turnover and perceptions of workload in charter management organizations. *Urban Education*, 51(8), 891-914. <https://doi.org/10.1177/0042085914549367>
- Zimmer, R., Buddin, R. J., Chau, D., Gill, B., Guarino, C., Hamilton, L., ... & Brewer, D. (1999). *Charter school operations and performance: New evidence from California*. Rand Corporation. Retrieved from https://www.rand.org/pubs/monograph_reports/MR1700.html