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Who Teaches Where? A Descriptive Analysis of Similarities and Differences between Teachers in Traditional and Charter Schools in Pulaski County, Arkansas

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Who Teaches Where? A Descriptive Analysis of Similarities and Differences between Teachers in Traditional and Charter Schools in Pulaski County, Arkansas

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by

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Abstract

Using survey data collected from 893 public school teachers in Pulaski County, Arkansas, this study looks for differences in traditional public school teachers and charter school teachers on their (1) backgrounds and teacher characteristics; (2) motivations for entering the teaching profession; and (3) attitudes towards school and teaching. A multivariate analysis of the data revealed that few differences exist between the two groups of teachers on their backgrounds, teacher characteristics, and motivations to enter the teaching field. However, charter school teachers were found to be more likely to have positive attitudes towards school policy changes, a stronger professional commitment to student learning, and perceived themselves to have a higher level of personal agency within their schools than traditional public school teachers.

These findings indicate that charter school teachers and traditional public school teachers in Pulaski County, Arkansas, on average, are not as different as previous research suggests. The differences found in previous studies could be attributed to the types of charter schools that were being studied, which attracted specific types of teachers. In contrast, the charter schools in this study did not have a common mission or recruitment technique and thus few systematic differences were found in teaching backgrounds and motivations for entering the teaching profession between the two groups of teachers. However, the differences found on teacher attitudes towards school and student learning seem to imply that charter schools do cultivate a different type of teacher, at least in Arkansas: one that is more flexible and sees himself or herself as more autonomous.

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Chapter 1: Introduction

The modern education reform movement began with the 1983 release of "A Nation at Risk: The imperative for educational reform" (National Center for Education Statistics [NCES], 2003). The report was an extensive critique on the public education system that called for changes to improve American public education. The recommendations included: increased academic rigor with measurable outcomes, increased time in school, an increase in the veneration of the teaching profession, an increase in public school choice. The report galvanized numerous state-level education reforms and policy changes, most of which fell under four overarching categories: 1) standards, assessment, and accountability; 2) school finance reforms; 3) teacher training; and 4) school choice options (National Center for Education Statistics [NCES], 2003).

As states set out to improve and reform public education, they began to establish content area academic standards for which school districts would be held accountable through statewide mandatory assessments. In other words, individual states decided what students in their states should know and how they should be able to demonstrate that knowledge. This was an answer to the call for increased academic rigor with measurable outcomes. By the 1990s, a majority of the states had created common standards and assessments. The importance of the standards movement culminated with the legislation of No Child Left Behind in 2001, a federal reauthorization of the Elementary and Secondary Education Act that tied testing results to federal funding (NCES, 2003).

In developing and streamlining the expectations for the outputs of public education, states, as measured by newly created assessments of student learning, also focused on the inputs. Looking at how schools were funded, several states began to reorganize their funding formulas

with a goal of ensuring that schools were adequately funded. States began to make systematic decisions about how much money should be spent on particular aspects of education to produce proficient students. This included thinking through the needs of special populations, such as students with disabilities. After determining what an adequate education cost, states redesigned their funding formulas and mechanisms with the end game being high academic achievement (NCES, 2003).

Another focus on inputs included teacher training, which underwent its own version of a standards based movement. Many states reorganized their teacher training and certification requirements. The restructuring of teacher training and certification included the development of alternative pathways to certification, which would allow professionals an easier transition in switching from other careers into teaching while maintaining the professional standards of teaching (NCES, 2003).

Finally, states began to develop policies to increase school choice options, meaning the options for parents to choose where their students attend school without traditional residential assignments or geographical constraints and, in some cases, with subsidies for parents wanting to send their students to private schools. These public school choice options, varied by state in availability, included publicly funded vouchers to pay for students to attend private schools, tuition tax credits for those paying for private school tuition, establishing education savings accounts for higher education, allowing parents to homeschool their children, and the establishment of charter schools (NCES, 2003).

The charter school idea is credited to former life-long educator, Ray Budde (1974). In describing how charter schools could benefit public education, Budde posited teachers creating schools to experiment with innovative instructional approaches in an effort to increase student

achievement. Budde argued teachers participating and taking on more responsibility in deciding how their schools were designed and operated would increase teacher satisfaction and improve teacher retention, making for stronger educational programs (1974).

Charter schools officially became an additional option for public school choice in 1991 when Minnesota passed the first charter school law (Minnesota Statutes, 1991). The law created public school options by allowing private entities to operate public schools outside of many of the policies and procedures to which traditional public schools had to adhere. One of the most important of these freedoms was the ability to enroll students without regard for geographic and residential boundaries. For example, students that attend traditional public schools are assigned to schools based on their home addresses, while students have the option to enroll in a charter school regardless of where they live (Minnesota Statutes, 1991).

Following Minnesota's lead, over a dozen states passed laws allowing for the establishment of charter schools in the early 1990's. The number of states with charter school laws nearly tripled with a boom in charter school legislation in the mid to late 1990s. As of 2016, 44 states and the District of Columbia have established charter school laws. Montana, Nebraska, North Dakota, South Dakota, Vermont, and West Virginia have yet to pass any charter school laws (National Association of Charter School Authorizers, 2016).

Arkansas established its first charter school law in 1995. This law did not allow private entities to open and operate schools like the laws in most other states. The first charter school law in Arkansas only allowed school districts to convert their existing campuses into charter schools. These schools are labeled district conversion charter schools. While these schools were allowed to operate outside of a number of the policies and procedures of traditional public schools in Arkansas, these schools were still subject to enrollment based on residential

assignment. So, while they provided innovation and experimentation on a small scale, they did not increase public school choice in Arkansas (Arkansas Statutes, 1995).

In 1999, however, the Arkansas legislature passed a law that allowed private entities to open and operate public schools. These new open-enrollment charter schools were able to enroll students regardless of their residence (Arkansas Statutes, 1999).

As charter schools became more widespread, they also became a point of contention. Proponents of the charter school movement support charter schools as one of the few public school choice options that allow parents of meager financial means to be able to choose where their children will attend school. Some supporters of charter schools even go as far as to claim that parent choice is the only mechanism needed to hold charter schools accountable. In other words, in an open public school marketplace, so to speak, parents selecting into a school should be a reliable indicator for school success, because parents would not send their children to schools that would not meet the needs of their children (Forman, 2007).

Supporters of charter schools have numerous studies to cite that show that charter schools have improved student achievement and increased diverse school settings (Greene, 2006). Moreover, charter schools are credited with creating increased opportunities for students to learn, more diverse student populations, or the ability to focus on a particular student population in pursuit of fulfilling a particular mission. Additionally, other studies show that competition for student enrollment, induced by the presence of charter schools, has positively affected student outcomes in nearby schools (Cordes, 2017).

Critics of charter schools raise concerns that the schools drain resources from traditional public schools; since funding is tied to student enrollment, when students select into charters, it translates into fewer dollars for traditional public schools. In addition, critics claim that charter

schools recruit and enroll students that are perceived as easy-to-teach and dismiss or push-out students that are perceived as hard-to-teach. Critics emphasize this point by citing research that shows charter schools serve specific groups of students, like those with special needs, at lower rates than traditional public schools (McKinney, 1996; Wolf and Lasserre-Cortez, 2018). In addition, many charter schools do not offer transportation, and this is cited as a barrier to entry by critics of charter schools (Cobb and Glass, 1999). At the least, charter school enrollment is based on active parent involvement. Compared to enrollment in traditional public schools, parents do have to take additional steps to get their children enrolled in charter schools, and critics contend that this systematically denies more traditionally underserved students access to the charters (Smith and Wohlstetter, 2009).

In the midst of the ongoing debate, the overall findings on most of these outcomes for students of charters are mixed. In short, some charters do worse, some do the same, while others do a better job than traditional public schools. There does seem to be a consensus that, on average, charter schools in urban areas produce better results for students than their neighboring traditional public schools (Betts and Tang, 2016).

Charter schools and traditional public schools may also present different experiences for teachers. As mentioned earlier, Budde is credited with the idea of charters as a way to increase teacher responsibilities and leadership roles within small innovative learning environments. From this point of view, it would seem that charter schools would ultimately have a positive effect on teachers and the overall profession of teaching. In fact, several studies have found that teachers working in charter schools have reported increased job satisfaction due to autonomy and flexibility that charter schools offer (Crawford, 2001; Gawlik, 2007; Goff, Mavrogordato, and Goldring, 2012; Malloy and Wohlstetter, 2003; and Renzulli, Parrott, and Beattie, 2011).

However, some traditional public school teachers often see charter schools as a threat to the teaching profession because charter schools are able to hire non-licensed educators to teach core subjects in their schools (Fabricant and Fine, 2012). Some critics suggest that the workload placed on charter school teachers is an abuse of teachers, which results in burnout and high rates of turnover in charter schools (Bloom, 2012).

While both sides make interesting and serious claims regarding the theories and ideas around the practices in charter schools in relation to teaching as a profession, it seems to be a worthwhile endeavor to ask current teachers in both sectors about their motivations and attitudes towards teaching and school. This study focuses on uncovering differences that exist between teachers who decide to teach in charter schools and teachers who decide to teach in traditional public schools.

Statement of Problem and Conceptual Framework

Comparing traditional public schools to charter schools has become a prevalent research endeavor within the field of education reform. The most common empirical comparisons touted by proponents and opponents of the charter school movement are focused on student enrollment composition and student achievement. That research, varied in approach, has produced inconsistent and inconclusive results (Betts and Tang, 2016; Cheng, Hitt, Kisida, and Mills, 2017).

Instead of focusing on the outcomes, a key difference between the two sectors may be in the most significant input, teacher quality. To date, many teacher quality studies have indicated that the most important factor in promoting student learning is having a high quality teacher (Boyd, Lankford, Loeb, Rockoff, and Wyckoff, 2007; Darling-Hammond, 2000; Goldhaber and Anthony, 2003; Harris and Sass, 2011; Rothstein, 2010). Educational attainment and teaching

experience have been linked to teacher quality, so comparing the educational attainment and teaching experiences may help to determine if teachers working in one sector appear to be of higher quality than those working in another sector. Examining differences in the gender and race of teachers will help to uncover if one sector is attracting a more diverse workforce as compared to the other. This issue is important, because long-term positive effects have been found on student outcomes, especially in high need and low income areas, when student-teacher demographics match (Egalite, Kisida, and Winters, 2015; Gershenson, Hart, Lindsay, and Papageorge, 2017; Nielsen and Wolf, 2001).

Teacher attitudes and motivations have also been found to impact student outcomes. Uncovering any significant differences in teachers' motivations and attitudes towards teaching based on the environments in which they choose to teach seems like a logical and worthwhile extension in the comparison of charters and traditional public schools. As research continues to seek out the optimal arrangement of inputs to produce consistent, unwavering improvement in student achievement, understanding which types of teachers choose to teach in the different sectors of public education and why seems to be important work. Furthermore, until more is known about the characteristics of the teachers in each sector, any examination of student outcomes could be unsubstantiated.

Both traditional and charter schools experience challenges in teacher recruitment and increasing student academic achievement. Many charters are located in low income, high needs areas in an attempt to improve the academic outcomes of the students in that area. Ultimately, the challenge of recruiting high quality teachers to low-income, high-needs areas must be answered if the academic outcomes are to improve. If charters are answering that challenge in systematic

ways, it would be worthwhile to know how they are doing that work and why high quality teachers are willing to work in charter schools serving low-income, high-needs students.

Purpose of the Study

The purpose of this study is to examine whether there are overall differences in characteristics associated with teacher quality between teachers who choose to work in charter schools and those who choose to work in traditional public schools. The measures include background and personal characteristics, training and experience, motivations to teach, and attitudes toward teaching and schools. Knowing more about the teachers who chose to teach in both public school environments could provide important information to school leaders and policy makers focused on optimizing the educational inputs in an effort to maximize the outputs of public education: student achievement and attainment.

Research Question

The following specific question will be the focus of this study: How do charter school teachers differ from traditional public school teachers in three general areas: 1) Background and personal characteristics, 2) Motivations for entering the profession, and 3) Attitudes toward teaching and schools.

Specifically, in the realm of background and personal characteristics, I will examine whether charter teachers differ from traditional public school teachers on the following measures:

- Primary or secondary teaching placement,
- Gender,
- Disadvantaged ethnicity status,
- Mother's education,

- Teaching experience,
- Certification status,
- Selectivity of undergraduate institution,
- Highest degree earned,
- Years since graduation, and
- Type of degree earned.

Second, with regard to motivations for becoming teachers, I will examine whether charter teachers are more or less likely than traditional public school teachers to have entered the field of teaching driven by the following four broad reasons:

- Career advancement: Wanting to join the teaching profession mainly to achieve results through hard work, advance in the career field, and move into leadership positions;
- Love of teaching: Wanting to join the teaching profession mainly to teach a beloved subject, work with children and watch children learn, grow, and improve;
- Social justice: Wanting to join the teaching profession mainly to help others, work with low-income students, and work towards educational equity; and
- Work/life balance: Wanting to join the teaching profession mainly to make navigating life simpler in terms of location, hours, and work-life balance.

Finally, with respect to the attitudes of the teachers toward teaching and schools, I will examine whether charter teachers reveal different beliefs than do traditional public school teachers in response to the following three issues and questions that shape educational policy discussions:

- School policy changes,

- Professional commitment to student learning, and
- Perceptions of personal agency within the work environment.

In an effort to uncover the existence of differences in traditional public school teachers and charter school teachers, I surveyed public school teachers in Pulaski County, Arkansas, which is home to Little Rock. There are 4 large traditional school districts in the area, along with 12 charter school operators, so teachers in the county can make choices between working in a traditional school and a charter school when selecting teaching positions. Almost 900 teachers participated in the survey, with 148 responses from charter school teachers for a 31% response rate and 745 responses from traditional public school teachers for a 25% response rate.

Significance of the Study

The results of this study could have policy and practice implications in relation to teacher recruitment and retention for both traditional and charter school sectors. Systematically determining what kind of teachers choose to teach in traditional school and charter school environments could help focus the scope and messaging of those seeking to hire teachers with specific attributes and attitudes. For example, if the charter sector has hired and retained more disadvantaged ethnicity teachers than the traditional sector, those seeking to hire and retain more disadvantaged ethnicity teachers in the traditional sector may want to look into the recruitment and retaining practices of the charter sector, or vice versa, if the opposite is true.

Additionally, uncovering the motivation, attitudes, and perceptions of teachers could assist education leaders in retaining teachers for longer periods, in both sectors. For example, knowing what drives teachers to teach in the first place and how they perceive their work seems to be useful information for educational leaders in both sectors. Leveraging that information to increase teacher capacity through professional development could prove beneficial to all schools.

Furthermore, if significant differences exist between teachers who chose to teach in traditional public schools and charter schools public schools, then it will be important to triangulate that information with the outcome driven studies that compare the two sectors. More specifically, if significant differences exist between the two sectors, and one produces higher rates of student achievement, then seeking out a particular type of teacher could prove beneficial for the entire educational landscape.

Limitations of the Study

The outcomes of this study are reliant on self-reported survey data from a sample of teachers, resulting in limited external reliability. This external reliability issue is compounded by a limited response rate of 26%, meaning the potential responses of the other 74% of teachers surveyed remain unknown. Additionally, the survey data will represent a snapshot in time, allowing the attitudes of teachers in different sectors to be compared to one another, but failing to answer if the attitudes of teachers changed over time.

Organization of the Study

The rest of this study is divided into four chapters, with chapter 2 consisting of a summary of the literature focused on teacher choice of employment in the public school sector, including recruitment and retention techniques used in both sectors, teacher motivations, and teacher perceptions of their work environment. Chapter 3 summarizes the methodology used to address the research question, "How do charter school teachers differ from traditional public school teachers in three general areas: 1) Background and personal characteristics, 2) Motivations for entering the profession, and 3) Attitudes toward teaching and schools." Chapter 4 provides a summary of the results, and chapter 5 discusses the findings of this study, policy

implications, and the opportunity for future research on the types of public school teachers who choose to teach in traditional public schools and charter schools.

Chapter 2: Literature Review

This literature review will first focus on the research that has empirically compared teachers in both sectors according to their demographics and educational credentials. Next, I review the research that exists on the motivations of existing teachers for becoming charter school teachers or traditional public school teachers. Finally, I review the literature available on comparing teacher perceptions and characteristics of charter school teachers and traditional public school teachers.

Literature Comparing Teacher Demographics and Education Background

Using 2002 data from California's Professional Assignment Information Form (PAIF), Guarino (2003), investigated the differences in charter school teachers and traditional public school teachers with respect to credentials and experience. With the study being on California schools, Guarino was able to compare teachers within the two types of charter schools there: "start-up" charter schools or independently operated charter schools, and conversion charter schools or district operated charter schools. As expected, traditional public school teachers were more likely to be fully certified and have more experience than teachers in both types of charter schools. Additionally, teachers in conversion charter schools were more likely to be fully certified and had more experience than teachers had in "start-up" charter schools (Guarino, 2003).

More specifically, in comparing 184 traditional schools to 250 charter schools, with 70 of those schools being conversion and 180 of those schools being "start-up", Guarino found that while 88% percent of the teachers in the traditional schools were fully credentialed, only 76% of the teachers in charter schools were fully credentialed. When looking at the different types of charter schools in California, Guarino also found that 88% percent of teachers in conversion

charter schools were fully credentialed, which corresponds with the percent of fully credentialed teachers in traditional schools, and that only 67% of teachers in "start-up" charter schools were fully credentialed. Not surprisingly, Guarino found similar results with teacher experience. Teachers in traditional schools were found to have an average of 13.6 years of teaching experience, while charter teachers had an average of 10.1 years of teaching experience. In looking at the two types of charters, conversion school teachers had an average of 11.4 years teaching experience and teachers in "start-up" schools had an average of 8.7 years of teaching experience. All of these differences were statistically significant at the 0.05 level (Guarino, 2003).

At a national level, Burian-Fitzgerald and Harris (2004), used data from the 1999 Schools and Staffing Survey (SASS) coupled with several state level policy indicators—authorization practices, funding mechanisms, collective bargaining policies, and the requirement for teacher licensure—to determine if charter school teachers were different from traditional public school teachers in terms of certification, experience, and undergraduate college selectivity. Overall, the results showed that charter schools were more likely to employ teachers who graduated from selective undergraduate universities, who had fewer years of teaching experience, and who were less likely to be certified. These results were intensified for charter schools that were not subject to follow collective bargaining agreements, in states with multiple authorizers, and in states with flexibility in teacher certification requirements. However, charter schools that were directly funded by the state, and not through a district or another entity, were more likely to hire certified teachers than other charter schools. Burian-Fitzgerald and Harris (2004) attribute this finding to the charters that are directly funded by the state having a larger budget to afford them the ability to hire more credentialed staff, than charters that are funded through a district.

Also using data from the 1999 SASS, state level charter policy indicators, and Baron's Profiles of American Colleges for example, Baker and Dickerson (2006) asked a similar set of questions and arrived at similar conclusions. The researchers found that teachers working in charter schools had stronger academic backgrounds than those working in traditional public schools, and that state level charter school policies influenced whether charters were more or less likely to employ teachers with competitive academic backgrounds. Specifically, the authors found that, in states where teacher certification was not required, charter schools were twice as likely to hire teachers who attended competitive colleges as compared to their traditional school counterparts. In states where teacher certification was required, the likelihood of charter schools hiring teachers who attended competitive colleges dropped significantly.

In the absence of the charter specific SASS data, since charter school specific data was only available on the SASS beginning in 1999, Podgursky and Ballou (2001) administered a personnel policies survey to a random sample of 200 charter schools that had been in operation for at least 3 years to complement the 1991 and 1994 SASS data. The researchers found that charter school teachers were less likely to be certified and have less teaching experience than traditional public school teachers. According to Podgursky and Ballou (2001) these personnel policies were an innovation that allow charters to recruit and hire teachers who would not typically be recruited and hired by traditional school districts.

In a subsequent study, using the 1999 SASS data, Podgursky (2006) explored how the ability of private and charter schools to set wages differently from traditional schools affects the recruitment and hiring practices of those schools, resulting in a variation in the characteristics of teachers ultimately being hired in the three sectors. Using undergraduate major and college selectivity as indicators for teacher quality, Podgursky found that charter school teachers and

private school teachers, on average, to be of higher quality, than traditional public school teachers. Podgursky attributed this difference in teacher quality to the regulatory freedoms, small size of wage-setting units, and a competitive market that allow charter and private schools to recruit and retain high quality teachers (2006).

Using the Common Core of Data (CCD) to identify charter schools and match them with a demographically similar traditional school within a 20-mile radius, Cannata and Peñaloza (2012) administered surveys to teachers in both types of schools to determine if any differences existed between the two groups on their characteristics, job choices and job preferences. Consistent with previous research, Cannata and Peñaloza found that charter school teachers were more likely to have less experience and less likely to be certified.

Using survey data and regression analyses, in an attempt to determine if teacher characteristics and preferences had an effect on principal instructional leadership practices, Goff, Mavrogordato, and Goldring (2012), found that traditional public school teachers were more experienced, more likely to be certified, and more likely to have attended more selective colleges than charter school teachers. The latter finding is interesting, in that the finding differs from other previous and prevailing research findings that charter school teachers were more likely to have attended selective undergraduate colleges. Perhaps this finding was different from previous research, because the sample was limited to schools that utilized the Northwest Evaluation Association (NWEA) assessments.

Comparing survey responses from 100 charter school teachers and 100 traditional public school teachers, Bomotti, Ginsberg, and Cobb (1999), empirically examined teacher perceptions of their empowerment, school climate, and working conditions at school. The survey tool used consisted of 40 forced-response, 5 open-ended, and 8 demographic questions. Using a one-way

ANOVA analysis, Bomotti, Ginsberg, and Cobb (1999) found that charter school teachers are more likely to be female, slightly younger, less credentialed, and have less experience than their traditional school counterparts. However, the researchers do emphasize that their charter respondents were more likely to work at the elementary level and this could account for some of these differences. These findings are similar to the previous and predominant findings on demographic and educational background differences for these two groups.

Thus overall, the existing research on differences in teacher characteristics between charter school teachers and traditional public school teachers is that traditional school teachers are more likely to have more experienced and be certified. In a few cases, charter school teachers were found to be more likely to have attended selective undergraduate universities. Next, I will review the sparse literature available on comparing the motivations of teachers currently working in charter schools and traditional schools for entering the teaching profession.

Literature Comparing Teacher Motivations for Entering the Career Field

Using the Common Core of Data (CCD) to identify charter schools and match them with a demographically similar traditional school within a 20-mile radius, Cannata and Peñaloza (2012) administered surveys to teachers in both types of schools to determine if any differences existed between the two groups on their characteristics, job choices and job preferences. Interestingly, Cannata and Peñaloza found that charter school teachers were more likely to have demonstrated a preference for working for a school with a particular mission as compared to traditional public school teachers. Additionally, this study found that charter school teachers were less likely to have concern over obtaining a job with a high level of job security or a job that is close to home in relation to traditional public school teachers (Cannata and Peñaloza, 2012).

In an effort to understand teachers' perceptions and reactions to performance pay, or extrinsic incentives, Mintrop and Ordenes (2017) surveyed and interviewed charter school teachers at schools with social justice and service oriented missions. As it relates to motivations to teach, the researchers, utilizing a survey tool, found that the challenge of the work, a sense of prosocial commitment to the work, ownership of the work, and pleasure from doing the work were some of the main things that motivated teachers to teach. Goal clarity, goal commitment, prestige, a sense of duty, and material benefits associated with the work were at the low end of the spectrum. When interviewed, teachers consistently relayed that while additional or increased pay is nice to have, it is not a major motivator for them. Furthermore, teachers also conveyed that they were already deserving of any additional funds provided, because of the quality of work they provide to their students in the absence of extrinsic incentives (Mintrop and Ordenes, 2017).

In a qualitative investigation, Redford (2014) interviewed 14 teachers who had previously worked in a traditional school setting and switched to a charter school setting. Four major themes that emerged from the interviews: the move from the charter sector was only driven by the fact that the teachers accepted a job they were offered from a charter school, teachers felt more autonomous and empowered at charter schools, teachers felt they became better teachers at the charter school, and teachers were less pleased with the physical environments of charters schools. Here it is important to note the first major theme on the motivation to switch from a traditional school setting to a charter school setting was simply the availability of a teaching position. In other words, these teachers were on the job market, charter schools were offering jobs, and the teachers accepted positions at the charter schools. Thus, it seems the other outcomes of being more autonomous and empowered were characteristics of the charter

environment that they discovered and enjoyed after being hired, and those attributes were not motivators for making the initial sector switch (Redford, 2014).

In this shallow pool of literature, the existing research on differences in teacher motivations for entering the profession between charter school teachers and traditional public school teachers is mixed and uncomprehensive. More research is definitely needed in this area, in the pursuit of increasing academic achievement. Next, I will review the literature available on comparing the attitude and perceptions of teachers currently working in charter schools and traditional schools.

Literature Comparing Teacher Attitudes and Perceptions

Using survey data and regression analyses, in an attempt to determine if teacher characteristics and preferences had an effect on principal instructional leadership practices, Goff, Mavrogordato, and Goldring (2012), found differences between charter school teachers and traditional public school teacher. Specifically, charter school teachers were found to be more likely to have selected their job position based on the instructional program utilized by the school, the ability to have instructional autonomy, a personal alignment with the mission of the school, the school's use of innovative instructional strategies, and support given by the principal to teachers at the school (Goff, Mavrogordato, and Goldring, 2012).

Comparing survey responses from 100 charter school teachers and 100 traditional public school teachers, Bomotti, Ginsberg, and Cobb (1999), empirically examined teacher perceptions of their empowerment, school climate, and working conditions at school. The survey tool used consisted of 40 forced-response, 5 open-ended, and 8 demographic questions. Interestingly, the study also found that traditional public school teachers perceived themselves as more empowered at the school level than charter school teachers, but traditional public school teachers perceived

themselves as less empowered in the classroom than charter school teachers. At the curriculum and content level, there were not significant differences in perception of empowerment between the two groups. In relation to the questions on school climate, traditional public school teachers were found to perceive that their schools rewarded students for their high achievement more than charter school teachers did. However, charter school teachers were found to perceive that their schools had a stronger emphasis on academic learning, as compared to their traditional school colleagues. In terms of overall job contentment, there was no significant difference found between the two groups of teachers. Looking at teaching and learning conditions, charter school teachers were found to be more satisfied with their working environment. Yet, when looking at the building structure and physical plant support, traditional public school teachers were found to be more satisfied than charter school teacher were. (Bomotti, Ginsberg, and Cobb 1999).

Also using survey data, Wei, Patel, and Young (2014) conducted empirical analyses to explain how differences in school organization contribute to the potentially differing experiences (e.g., working conditions, instruction and student engagement in learning, self-efficacy and job satisfaction, and teacher evaluation) of charter school teachers and traditional public school teachers. Implementing a propensity score matching technique to reduce the impact of selection bias, the researchers found that, "Compared with similar teachers in traditional public schools, charter school teachers reported a more supportive teaching environment, higher expectations of students among staff, a greater sense of responsibility for student learning, and higher levels of student engagement in learning" (Wei, Patel, and Young, 2014). The researchers also found that charter school teachers attended fewer professional development trainings focused on instruction and aligned to teaching assignments and collaboration with colleagues, and had lower perceived

fairness of teacher evaluation than their traditional school counterparts (Wei, Patel, and Young, 2014).

In an effort to determine if the organizational structure of charter schools influences teachers' perceptions of their working conditions, Ni (2012) compared teacher working conditions in charter and traditional public schools and among various types of charter schools. Utilizing the data from the 2003–2004 SASS and propensity score matching and a series of weighted Hierarchical Linear Models, this study quantitatively analyzed "teachers' perceptions of working conditions between charter and traditional public schools, controlling for teacher and school characteristics" (Ni, 2012). The results indicate that charter school teachers and traditional public school teachers perceive their overall working conditions to be similar except for when it comes to influence over school policies and daily workload. In these cases, charter school teachers indicated that they felt they had a stronger influence over school policies and a heavier daily workload. In comparing responses from teachers in different types of charter schools, Ni found that "district-granted charter schools show consistently more supportive working environments than charters granted by other organizations" (2012).

Also focusing on the logistical differences between charter schools and traditional schools, Renzulli, Parrott, and Beattie (2011) compared rates of teacher satisfaction and retention due to racial mismatch between the two sectors. Using 1999-2000 SASS data, the researchers found that charter school teachers were more satisfied with their work than traditional public school teachers, because charter school teachers were able to exercise greater autonomy within their schools. However, in spite of the higher rates of satisfaction, charter school teachers were found to be more likely to leave teaching than traditional school counterparts. The authors attribute this turnover to a lack of charter school unionization, and the stability that unions bring

to the teaching workforce. As it relates to teaching in racially mismatched schools, results from the study showed lower levels of satisfaction for white teachers; however, being in a charter school reduced that negative effect (Renzulli, Parrott, and Beattie, 2011).

The next study reviewed also focused on job preferences, but did so using qualitative methods. Gawlik (2007), using a theoretical framework derived from the deregulation inherent in the charter school concept, explored the perceptions that charter school teachers had of their personal autonomy in their school environments. In interviewing 40 teachers from 4 different schools, Gawlik found that 11 of the teachers, who had previously worked in both charter and traditional school settings, preferred working in charter schools, because of the autonomy they were able to exercise in the charter setting (2007).

Interviewing charter school teachers, Malloy and Wohlstetter (2003), found that charter school teachers, while working longer hours with less job security, were professionally satisfied with working in charter schools and yet felt they, themselves, were at risk for burnout and quick turnover. Charter school teachers often mentioned their professional communities, autonomy, and the school's education program, as reasons they enjoyed their work. Teacher risk of burnout and high turnover is related to the number of roles that charter school teachers must play in order for the schools to run adequately. Malloy and Wohlsetter recommend that charters work on addressing the potential for burnout and turnover in an effort to protect the charter school model in perpetuity.

Looking specifically at teacher perceptions of autonomy and accountability, Crawford (2001) used data from schools in Colorado and Michigan and their teachers' responses to School Participant Empowerment Scale. Examining the differences between charter school teachers' and traditional public school teachers' perceptions of empowerment, and specifically of decision

making and autonomy, with comparative research design, differences were found between the two sectors in one state, but not the other. In Colorado, traditional public school teachers were found to perceive themselves to have more decision-making opportunities and more autonomy than their counterparts in charter schools. However, no differences were found between the perceptions of charter school teachers and traditional public school teachers on decision-making and autonomy in Michigan schools. The differences in the two charter markets in each state could explain different finding by state. The Michigan charter sector is mostly comprised of for profit education management organizations, whereas the Colorado charter sector largely consists of independently run charter schools, often referred to as "mom and pop" charter schools (Crawford, 2001).

As a result of interviewing 14 teachers who had previously worked in a traditional public school setting and switched to a charter school setting, Redford (2014), uncovered some interesting findings. Notably, teachers who had made the switch perceived themselves to have less censorship and more freedom to teach in their charter school. In turn, this perception of autonomy and empowerment provided them with motivation to become better teachers (Redford, 2014).

Summary of Literature

Generally, the consistent themes that emerge from the literature are that charter school teachers seem to be somewhat younger, less experienced, and less committed to take on teaching as a lifelong career choice than their counterparts in traditional public schools. Additionally, the research shows that charter school teachers have somewhat more idealistic and somewhat less materialistic motives for entering teaching than traditional public school teachers. In regard to

their self-perceptions, charter school teachers seem to feel somewhat more empowered in their workplaces than traditional public school teachers.

Subsequently, this study uses survey data to determine if there are significant differences between teachers who choose to teach in charter schools and those who choose to teach in traditional schools in terms of their backgrounds and personal characteristics, motivations to become teachers, their attitudes towards school policy changes, their professional commitment to student learning, and their perceptions of their personal agency within their working environment.

Chapter 3: Data Sources and Research Methodology

In this study, I assess the differences between teachers working in charter schools and their peers working in traditional public schools in the following three domains:

1. Backgrounds and personal characteristics,
2. Motivations to enter the field, and
3. Attitudes and views teachers might have with regard to flexibility amidst school policy changes, teacher commitment to student learning, and autonomy.

The sample of teachers in this study was drawn from the public charter schools and the traditional public schools in Pulaski County, Arkansas. In this section, I will first describe the survey instrument that I used to gather each of the measures from all the teachers. Then, I will focus specifically on survey measures that I developed to explore the nuanced measures related to teacher motivations to teach and attitudes, since the survey items focused on teacher characteristics such as gender, race, or years of experience are straightforward.

Next, I describe the administration of the survey tool and the sample population that responded to the survey. Finally, I describe the analytic strategy utilized to address my research questions previously described.

Survey Instrument

In order to have a better idea of the differing and shared character traits of teachers working in charter and traditional schools, I developed a survey instrument that consists of four constructs and a series of demographic questions. In total, the survey consisted of 47 individual items. The survey was constructed and administered using qualtrics, which is an online entity that provides software to collect and analyze data. Those emailed were given two weeks to complete the survey, and those who had yet to complete the survey were sent reminders four

times over the course of the two weeks. Of the 47 items on the survey, 11 of those items asked for the respondents' demographic and educational background information.

Background and personal characteristics. The focus of these questions was to determine background information including the current grade level(s) being taught, a number of academic credentials, race, and gender. Mainly, this demographic survey could either confirm or disconfirm what previous research found regarding the demographic and educational backgrounds of these two groups. Dummy variables were constructed for the responses. In an effort to determine the differences in the demographic compositions of the two groups, the responses from teachers working in traditional schools were compared to the responses from teachers working in charter schools using an independent t-test.

As previously mentioned, some very straightforward dummy variables were created for the demographic questions that had only two response options. For example, gender was coded as zero if the respondent indicated she was female and one if the respondent indicated he was male. Similarly, if a teacher indicated they worked in a charter school, the response was coded one, and if the teacher indicated they worked in a traditional environment the response was coded zero. Other responses to items were coded after the responses were examined.

With regard to educational information and background items, some decisions had to be made pertaining to coding and analyzing the data. For example, teachers were given the opportunity to check one or more of the three different categories used to describe the grade level taught: elementary grades K-5, middle grades 6-8, and or high school grades 9-12. An initial review of the responses revealed that most responses fell into the K-5 and 9-12 categories, and that the most appropriate choice would be to code each response as either primary or secondary. In determining how to code a teacher who that indicated they taught both elementary grades and

high school grades, I decided to align my coding with the Arkansas Department of Education's grade spans and grade configurations that are used for the state's federal accountability system. This system is designed to give more weight to the high school grades. So, that teacher who taught both elementary and high school would be coded as secondary. For my purposes, primary was coded as zero, and secondary was coded as one.

In terms of disadvantaged ethnicity status, respondents were given eight different options to indicate their ethnicity: African American, American Indian or Alaska Native, Asian, Asian American, Caucasian, Hispanic, Two or more races, and other. After reviewing the responses, I determined that a vast majority of the respondents indicated they were African American or Caucasian. So, I decided to code the responses as disadvantaged ethnicities, coded as one, or non-disadvantaged ethnicities, coded as zero. African American, American Indian or Alaska Native, Hispanic, Two or more races, and other were placed in the disadvantaged ethnicities category. Asian, Asian American, and Caucasian were placed in the non-disadvantaged ethnicities category.

In coding the responses to mother's highest level of education attained, I broke down the six possible options—none, high school diploma, bachelor's degree, master's degree, specialist's degree, and doctorate degree—into two categories. The distribution of responses revealed the greatest differentiation between the high school diploma and the bachelor's degree. So, I coded mother's highest level of education attained as zero for those who had completed a high school diploma or less and one for those who had done more.

Next, with regard to the teaching experience item, which gave teachers six possible options—1 year, 2 years, 3 years, 4 to 5 years, 6 to 10 years, and 11 or more years—I reviewed the responses and considered past practices in research. Ultimately, I decided to group

experience into three categories: novice (1 to 3 years), experienced (4 to 10 years), and veteran (11 or more years). Within each category, a dummy variable was created. For example, in the novice category, all teachers who indicated their teaching experience to be one, two, or three years were given a one, and all other teachers were given a zero. The same thing was done for the experienced and veteran categories, for a total of three dummy categories for teaching experience.

In terms of explaining how they obtained their teacher licensure, respondents were given six possible options: undergraduate teaching degree, graduate teaching degree, alternative certification through a state sponsored program, alternative certification through a competitive program, I am not a licensed teacher, and other. I decided to group the two teaching degree licensure pathways together and all other pathways to teaching together. So, teachers who received licensure through a degree program were coded as zero, and teachers who were otherwise qualified to teach were coded as one.

The survey also included an open-ended question about their undergraduate school; for this item, I decided to use the responses to determine if the respondents had attended selective undergraduate institutions or not. Using Barron's Profiles of American Colleges (2015), I coded schools that were listed as most competitive, highly competitive plus, highly competitive, and very competitive as selective, indicated with a one, and all other schools as not selective, indicated with a zero.

The survey asks respondents to indicate their highest degree earned. They were given five options: bachelor's degree, master's degree, specialist's degree, doctorate of education, and doctorate of philosophy. After reviewing the responses and considering previous research

practices, I decided to group responses into two categories: up to a masters and beyond a masters. Up to a masters was coded as a zero, and beyond a masters was coded as a one.

In addition, the survey allowed the respondents to enter in the year they graduated. After reviewing the responses, I decided to code the responses as recent graduate, having graduated within the last ten years, and non-recent graduate, having graduated more than ten years ago. Recent graduates were coded as one, and others were coded as zero.

Finally, respondents were given the option of typing in the subject in which they majored. After reviewing the responses, most of them were education related, and the others had a large variation. So, I decided to group them as education degree, coded as zero, and non-education degree, coded as one.

Prior to conducting my analysis, I ran a correlation test to see if any of the demographic items were highly correlated. After finding that the year teachers graduated from college and their years of experience were correlated at around 0.75, I decided to remove the graduation year from the analysis. Also, I found that having an education degree and being a licensed teacher were correlated around 0.52, and I decided to remove the degree type variable from my analyses.

Constructs. The four sets of constructs were designed to capture the motivations that led those surveyed to teaching as their chosen profession, their attitudes towards school policy changes, their professional commitment to student learning, and their perceptions of their personal agency within their working environment. Each construct is measured with multiple questions and response options.

Construct #1: Motivations. Within the motivation for teaching construct are four separate sub-constructs. For simplicity, these constructs will be referred to as career advancement, love of teaching, social justice, and work/life balance.

- Career advancement items identify the motivations for becoming a teacher as ones that are focused on achieving results through hard work, advancing in the career field, and moving into leadership positions.
- Love of teaching items identify the motivations for becoming a teacher as ones that are entangled with emotions about teaching a beloved subject, working with children or watching children learn, grow, and improve.
- Social justice items identify the motivations for becoming a teacher as opportunities to help others, work with low-income students, and work towards educational equity.
- Work-life balance items identify the motivations for becoming a teacher as ones that make navigating life simpler in terms of location, hours, and work-life balance.

These sub-constructs were designed as an attempt to determine where an individual's motivation to be an educator originates. Of course, I could not simply ask each teacher about the underlying motivation, because I would likely receive socially acceptable responses with little variation. Instead, I developed a set of items that force the respondent to choose which was the strongest motivation among the three listed, with the three options representing a mix of the four sub-constructs from one prompt to the next. By forcing those surveyed to pick one of the socially acceptable responses over two other socially acceptable responses, I expected that the most important motivation factor in each job related category would become clear for each respondent. By phrasing the three choices in socially acceptable terms, I hoped to prevent all respondents from choosing the same options due to the social pressures of societal norms. In total, each respondent was presented with twelve items, or sets of choices. Choices related to

each of the four motivation areas described above appeared in nine of the choice sets. Thus, respondents who, for example, entered teaching for reasons of social justice-related reasons, would have found nine responses related to social justice among the twelve choice sets.

Tables 1-5 below list the items used in the motivations scale and examples of these forced choice survey items used for each of the sub-constructs that combine to create the larger motivation construct. Table 1 shows the entire 12-item Motivations scale.

Table 1

All 12 Items in Motivations to Become a Teacher Scale

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
1	to have a better work/life balance	***or***	to advance my career	***or***	to work towards educational equity
2	to move into leadership positions	***or***	to work with children	***or***	to have summers off
3	to teach the subject I love	***or***	to have a sense of fulfillment through helping others	***or***	to work close to home
4	to achieve results through hard work	***or***	to work in a low-income community	***or***	to watch students learn, grow, and improve
5	to have summers off	***or***	to achieve results through hard work	***or***	to work towards educational equity
6	to work close to home	***or***	to advance my career	***or***	to work with children
7	to work in a low-income community	***or***	to watch students learn, grow, and improve	***or***	to have a better work/life balance
8	to move into leadership positions	***or***	to work towards educational equity	***or***	to teach the subject I love
9	to have a better work/life balance	***or***	to work in a low-income community	***or***	to achieve results through hard work
10	to move into leadership positions	***or***	to work close to home	***or***	to watch students learn, grow, and improve
11	to have a sense of fulfillment through helping others	***or***	to watch students learn, grow, and improve	***or***	to have summers off
12	to teach the subject I love	***or***	to advance my career	***or***	to work towards educational equity

Motivations sub-construct: career advancement. In Table 2, the responses related to career advancement sub-construct identify the motivations for becoming a teacher as ones that are focused on achieving results through hard work, advancing in the career field, and moving into leadership positions.

Table 2

Motivation Sub-construct Items, Career Advancement

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
1	to have a better work/life balance	***or***	to advance my career	***or***	to work towards educational equity
2	to move into leadership positions	***or***	to work with children	***or***	to have summers off
4	to achieve results through hard work	***or***	to work in a low-income community	***or***	to watch students learn, grow, and improve

Note: Shaded cells indicate the responses closely related with career advancement motivations to enter the teaching force.

Motivations sub-construct: love of teaching. In Table 3, the responses related to the love of teaching sub-construct identify the motivations for becoming a teacher as ones that are entangled with emotions about teaching a beloved subject, working with children or watching children learn, grow, and improve.

Table 3

Motivation Sub-construct Items, Love of Teaching

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
6	to work close to home	***or***	to advance my career	***or***	to work with children
8	to move into leadership positions	***or***	to work towards educational equity	***or***	to teach the subject I love
10	to move into leadership positions	***or***	to work close to home	***or***	to watch students learn, grow, and improve

Note: Shaded cells indicate the responses closely related with love of teaching motivations to enter the teaching force.

Motivations sub-construct: social justice. In Table 4, the responses related to the social justice sub-construct identify the motivations for becoming a teacher as opportunities to help others, work with low-income students, and work towards educational equity.

Table 4

Motivation Sub-construct Items, Social Justice

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
9	to have a better work/life balance	***or***	to work in a low-income community	***or***	to achieve results through hard work
11	to have a sense of fulfillment through helping others	***or***	to watch students learn, grow, and improve	***or***	to have summers off
12	to teach the subject I love	***or***	to advance my career	***or***	to work towards educational equity

Note: Shaded cells indicate the responses closely related with social justice motivations to enter the teaching force.

Motivations sub-construct: work/life balance. In Table 5, the responses related to the work/life balance sub-construct identify the motivations for becoming a teacher as ones that make navigating life simpler in terms of location, hours, and work-life balance.

Table 5

Motivation Sub-construct Items, Work/Life Balance

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
3	to teach the subject I love	***or***	to have a sense of fulfillment through helping others	***or***	to work close to home
5	to have summers off	***or***	to achieve results through hard work	***or***	to work towards educational equity
7	to work in a low-income community	***or***	to watch students learn, grow, and improve	***or***	to have a better work/life balance

Note: Shaded cells indicate the responses closely related with work/life balance motivations to enter the teaching force.

In terms of interpreting the survey responses for the motivation sub-constructs, after determining which responses aligned best with each of the sub-constructs, a dummy variable was created for each of those responses with one indicating the alignment and zero indicating other options. For example, for the social justice sub-construct I used Item #9 as shown in Table 4. The "to work in a low-income community" response option in the item was coded as one and the other two response options were coded as zero. This process was repeated for all of the items within this sub-construct. Then, after summing the responses of all items within the sub-construct, each respondent was given a social justice motivation score. This process was repeated for the other three sub-constructs.

In Table 6, the percentage of respondents who selected each of the characteristics is below each item option. Even though these item options were developed to all be socially acceptable responses, it appears that some may have been more socially desirable than others. The following socially desirable responses received over 70% of responses on at least one occasion: "to work with children," "to have a sense of fulfillment through helping others," "to watch students learn, grow, and improve," and "to work towards educational equity." Moreover, "to watch students learn, grow, and improve" was selected by over 80% of respondents, except for when it was placed next to "to have a sense of fulfillment through helping others", which is another one of the more socially desirable responses.

Table 6

Percentage of Responses to Motivation Scale

For EACH set of 3 job characteristics, please indicate the characteristic that you find most attractive about the teaching profession (or … that was MOST influential in your decision to become a teacher).					
1	to have a better work/life balance	***or***	to advance my career	***or***	to work towards educational equity
	45%		11%		44%
2	to move into leadership positions	***or***	to work with children	***or***	to have summers off
	12%		77%		11%
3	to teach the subject I love	***or***	to have a sense of fulfillment through helping	***or***	to work close to home
	26%		71%		3%
4	to achieve results through hard work	***or***	to work in a low-income community	***or***	to watch students learn, grow, and improve
	6%		6%		88%
5	to have summers off	***or***	to achieve results through hard work	***or***	to work towards educational equity
	18%		45%		37%
6	to work close to home	***or***	to advance my career	***or***	to work with children
	6%		12%		82%
7	to work in a low-income community	***or***	to watch students learn, grow, and improve	***or***	to have a better work/life balance
	5%		81%		14%
8	to move into leadership positions	***or***	to work towards educational equity	***or***	to teach the subject I love
	11%		44%		45%
9	to have a better work/life balance	***or***	to work in a low-income community	***or***	to achieve results through hard work
	39%		13%		48%
10	to move into leadership positions	***or***	to work close to home	***or***	to watch students learn, grow, and improve
	7%		4%		89%
11	to have a sense of fulfillment through helping others	***or***	to watch students learn, grow, and improve	***or***	to have summers off
	43%		50%		7%
12	to teach the subject I love	***or***	to advance my career	***or***	to work towards educational equity
	44%		12%		44%

In Table 7, the mean score and most selected characteristic, by sub-constructed are listed. As seen in both Table 6 and Table 7, the most selected characteristic was overwhelmingly "to watch students learn, grow, and improve".

Table 7

Mean of Most Frequently Selected Characteristic, by Sub-construct

Construct	**Mean (of 9)**	**Most Selected Characteristic**
Career Advancement	1.60	"to achieve results through hard work"
Love of Teaching	5.75	"to watch students learn, grow, and improve"
Social Justice	3.05	"to work towards educational equity"
Work/Life Balance	1.44	"to have a better work/life balance"

Prior to creating four separate motivation sub-construct scores for each respondent, but after the survey was administered, reliability tests were conducted for the items in each of the sub-constructs. Within the 12 items of the motivation construct, each sub-construct appears a total of 9 times. As previously stated, the sub-constructs were coded using dummy variables. So, each sub-construct originally consisted of nine items and a respondents score could fall between 0 and 9 amongst the sub-constructs. These nine items were measured for reliability, using Cronbach's Alpha test in STATA and the indications of the respondents, for each of the four sub-constructs. Some sub-constructs were found to be more reliable than others. Please see Table 11 for the reliability results of each construct.

- The career advancement sub-construct scale was determined that to be somewhat reliable after removing two of the items in the scale, receiving an α=0.66. So, the career advancement sub-construct score ultimately had to fall between zero and seven. Using only the relevant items, the mean score for the whole sample on this sub-construct was 0.69.

- The love of teaching sub-construct scale was determined to be somewhat reliable after removing two of the items in the scale, receiving an α=0.57. So, the love of teaching sub-construct score ultimately had to fall between zero and seven. Using only the relevant items, the mean score for the whole sample on this sub-construct was 4.37.
- The social justice sub-construct scale was determined that to be reasonably reliable after removing three of the items in the scale, receiving an α=0.71. So, the social justice sub-construct score ultimately had to fall between zero and six. Using only the relevant items, the mean score for the whole sample on this sub-construct was 2.51.
- The work/life balance sub-construct scale was determined that to be reasonably reliable after removing one of the items in the scale, receiving an α=0.71. So, the work/life balance sub-construct score ultimately had to fall between zero and eight. Using only the relevant items, the mean score for the whole sample on this sub-construct was 1.41.

Overview of Constructs #2, #3, and #4

Within the attitudes towards school policy changes, professional commitment to student learning, and perceptions of personal agency within the working environment constructs, the responses were rated from one to four, using a Likert scale. The most positive responses received a score of four and the least positive responses received a score of one. All of the responses for the questions in a given construct were averaged and the educator answering the survey was given a score that fell in between one and four, similar to a grade point average, for each construct. In other words, a person who received a 3.5 within the attitudes towards school

policy changes construct would be considered to have a more positive attitude towards and assumed to be more accepting of school policy changes than a person who received a 3.0 average score on this scale. These scores allowed for comparisons between the two groups of teachers.

Construct #2: attitudes towards school policy changes. In an effort to determine educator attitudes towards school policy changes, the survey instrument asks six different questions related directly to actions taken in situations of change. Table 8 shows educator attitudes towards school policy changes construct items. These items were designed to provide an insight into a responding teacher's willingness to support changes in school policy.

In developing this construct and writing the individual items in the construct, I focused on innovative policy changes that are often mentioned as ways to increase student achievement outcomes. The idea here was to see if these innovative school policies were viewed differently by charter school teachers and traditional public school teachers. These items were not validated prior to the survey; however, a reliability test was run on the items after the survey was administered and initial data was collected.

The responses to the attitudes towards school policy changes construct were coded from one to four, with one representing a negative attitude towards these policy changes and four representing a positive attitude towards these policy changes. In reference to the Table 8 below, the "I would definitely NOT support" response option would be given a one, and the "I would definitely support" response option would be given a four. The responses for each item in the construct were summed and averaged to give each respondent a GPA type score for this construct.

Table 8

Attitudes Towards School Policy Changes Construct Items

In the following scenarios, select how much you would support the following changes in your school policies. Assume that these situations occur after you have worked for at least two years at the school and you are overall very happy with your job.		I would *definitely* NOT support	I would *probably* NOT support	I would *probably* support	I would *definitely* support
Q6.1	Your school is going to require 4 hours of weekly professional development focused on strengthening grade level and content teaching communities.	**1**	**2**	**3**	**4**
Q6.2	Your school requires weekly observations and feedback to help develop quality instruction.	**1**	**2**	**3**	**4**
Q6.3	All teachers at your school will be required to work 2 days of Saturday school each month focused on student interventions and enrichment.	**1**	**2**	**3**	**4**
Q6.4	Your school is switching to performance-based pay system which is largely based on student test scores.	**1**	**2**	**3**	**4**
Q6.5	Your school is going to require much more detailed lesson plans; you expect this will create about 4 hours more of work per week.	**1**	**2**	**3**	**4**
Q6.6	Your teacher evaluation rating at the end of next year will be partly based on improvement in your students' test scores.	**1**	**2**	**3**	**4**

Note: Red numbers indicate the score assigned for the corresponding response and are not visible to respondent.

Prior to creating the score and conducting the analyses, a reliability test was conducted for the items in the construct. Using the Cronbach's Alpha test in STATA, it was determined that the scale was reasonably reliable, receiving an α=0.74. No items were removed from the

scale. Overall, then, teachers who score high on this measure are willing to undertake additional duties or show flexibility to make changes in an effort to improve instruction for kids.

Construct #3: professional commitment to student learning. In an effort to determine respondents' professional commitment to student learning, the survey instrument provides nine different statements and asks the respondent to indicate a level of agreement with the statement. Table 9 below lists the items in the scale. These items are designed to provide an insight into a respondent's professional commitment to student learning. More specifically, these items ask about the extent to which teachers view themselves as being responsible for student learning, as compared to believing that student education is mainly the responsibility of students and their families.

In developing this construct and writing the individual items in the construct, I attempted to quantify indicators of professional commitment to student learning. The idea here was to see if different components of professional commitment to student learning were viewed differently by charter school teachers and traditional public school teachers. In other words, I wanted to know if the different types of teachers viewed teaching itself differently. These items were not validated prior to the survey; however, a reliability test was run on the items after the survey was administered and initial data was collected.

The responses to the professional commitment to student learning construct were coded from one to four, with one corresponding with a low level of professional commitment to student learning and a four representing a high level of professional commitment to student learning. For example, on Item #Q8.2 in Table 9, strongly disagreeing with the belief that students are responsible for their own education implies that the teacher holds the responsibility for the students' education, and thus receives a 4, because it demonstrates a high level of professional

commitment to student learning. This logic was used for all of the items in the scale, and the responses for each reliable item in the construct were summed and averaged to give each respondent a GPA type score for this construct.

Table 9

Attitudes Towards Professional Commitment to Student Learning Construct Items

Please indicate your level of agreement with each of the statements below.		Strongly Disagree	Disagree	Agree	Strongly Agree
Q8.2	I believe that students are responsible for their own education.	**4**	**3**	**2**	**1**
Q8.3	I believe it is the teacher's job to create a learning environment that is conducive to the development of students' self-confidence and competence.	**1**	**2**	**3**	**4**
Q8.5	I am committed to critical self-reflection for my professional growth.	**1**	**2**	**3**	**4**
Q8.6	I believe that all students want to learn.	**1**	**2**	**3**	**4**
Q8.7	I view teaching as a collaborative effort among educators.	**1**	**2**	**3**	**4**
Q8.9	I believe I can teach a student without knowing about the student's background and community.	**4**	**3**	**2**	**1**
Q8.10	It is my responsibility to make learning fun for my students.	**1**	**2**	**3**	**4**
Q8.11	I am doing a good job if 95% of my students are on-task.	**1**	**2**	**3**	**4**
Q8.12	Some teachers will always do better than others because they have a natural ability to teach.	**4**	**3**	**2**	**1**
Q8.13	I believe teaching is a desirable profession, because teaching offers a high level of job security.	**4**	**3**	**2**	**1**

Note: Red numbers indicate the score assigned for the corresponding response and are not visible to respondent.

Prior to conducting the analyses, a reliability test was conducted for the items in the construct. Using the Cronbach's Alpha test in STATA, it was determined that the scale was reasonably reliable after removing about half of the items, receiving an α=0.63. Of the constructs that were measured with Likert scales, the attitudes towards teaching construct was the weakest in terms of reliability. Unfortunately, five of the items (Q8.2, Q8.9, Q8.11, Q8.12, and Q8.13) had to be removed to increase the reliability of the scale. So, the GPA type score and subsequent analyses were produced using only the following items: Q8.3, Q8.5, Q8.6, Q8.7, and Q8.10.

Construct #4: perceptions of personal agency within the working environment. In an effort to determine the perceptions of personal agency within the working environment, the survey instrument provides eight different statements and asks the respondent to indicate a level of agreement with the statement. Table 10 below provides items in the scale. These items are designed to provide insight into a respondent's perceptions of their personal agency within the work environment.

In developing this construct and writing the individual items in the construct, I attempted to quantify indicators of personal agency within the work environment. The idea here was to see if charter school teachers and traditional public school teachers viewed their levels of personal agency within the work environment differently. In other words, I wanted to know if teacher perception of personal agency differed by sector. These items were not validated prior to the survey, however, a reliability test was run on the items after the survey was administered and initial data was collected.

The responses to the teacher perceptions of their personal agency within the work environment were coded from one to four, with one representing teachers not feeling a sense of

personal agency within the work environment and four representing teachers feeling a strong sense of personal agency within the work environment. For example, on Item #Q10.3 in Table 10, strongly agreeing with the statement that it would be easy to initiate a new program at school indicates a strong sense of personal agency within the work environment and was scored with a four. Conversely, strongly disagreeing with the same statement would indicate a lack of a sense of personal agency in the work environment and was scored with a one. This logic was used for all of the items in the scale, and the responses for each reliable item in the construct were summed and averaged to give each respondent a GPA type score for this construct.

Table 10

Perceptions of Personal Agency within the Working Environment

Please indicate your level of agreement with each of the statements below.		Strongly Disagree	Disagree	Agree	Strongly Agree
Q10.1	At my school, there is an easily accessible path to promotion.	**1**	**2**	**3**	**4**
Q10.2	At my school, the building leader knows what is going on in every classroom on campus.	**1**	**2**	**3**	**4**
Q10.3	At my school, I could easily initiate a new program or student club.	**1**	**2**	**3**	**4**
Q10.4	My building leader welcomes feedback from teachers.	**1**	**2**	**3**	**4**
Q10.5	I feel supported by the administrators in my building.	**1**	**2**	**3**	**4**
Q10.7	I have had the opportunity to meet my school's board members.	**1**	**2**	**3**	**4**
Q10.8	I would like to still be teaching at this school in five years.	**1**	**2**	**3**	**4**
Q10.9	At my school, teachers are afraid of being fired.	**4**	**3**	**2**	**1**

Note: Red numbers indicate the score assigned for the corresponding response and are not visible to respondent.

Prior to conducting the analyses, a reliability test was conducted for the items in the construct. Using the Cronbach's Alpha test in STATA, it was determined that the scale was reasonably reliable, receiving an α=0.80. No items were removed from the scale.

Table 11 below provides the descriptive statistics for the previously described survey constructs. Overall, the constructs were reasonably reliable. The Cronbach's Alpha measured between 0.57 and 0.80, with most falling between 0.60 and 0.75. Testing the constructs and

corresponding items prior to the initial administration of the survey to the sample population, could have potential led me to revise some prompts in an effort to increase the reliability of the constructs.

Table 11

Descriptive Statistics, Survey Constructs

Construct	Number of Questions on Survey	Cronbach's Alpha	Mean	Min	Max	SD
Motivation						
Career Advancement	7	0.66	0.69	0	7	1.19
Love of Teaching	7	0.57	4.37	0	7	1.54
Social Justice	6	0.71	2.51	0	6	1.77
Work/life balance	8	0.71	1.41	0	8	1.62
Attitudes Towards:						
Policy Changes	6	0.74	1.99	1	4	0.58
Professional Commitment to Student Learning	5	0.63	3.27	1	4	0.45
Perception of Personal Agency in Work Environment	8	0.80	2.68	1	4	0.58

N=892

Administration of the Survey Instrument

Survey sample. In selecting a group of teachers to survey, in an effort to compare educators working in a traditional school with those working in a charter school, it was important to find a large number of teachers who would be demographically similar yet had made the decision to teach in one sector or the other. I determined there are two areas of Arkansas in which there are high concentrations of charter schools amongst traditional school districts: Central Arkansas and Northwest Arkansas. Of those two areas, I selected Central Arkansas, because the area contained several different public school districts and open-enrollment charter schools, such that teachers in the area had real choices and therefore, the opportunity to self-sort in interesting ways.

. After selecting Central Arkansas as the area of interest, I focused on public schools within Pulaski County. Pulaski County is home to four large traditional school districts: Jacksonville North Pulaski School District, Little Rock School District, North Little Rock School District, and Pulaski County Special School District. Teachers from all four districts were contacted via email to complete the survey. There are 11 public charter schools geographically situated in Pulaski County. Teachers from all 11 are included in my sample. As shown in Table 12 below, the sizes of the districts and charter school networks vary across both sectors.

Table 12

School Districts Included in Sample, by Sector

Sector	District Name (Founded)	N Schools	N Students	N Teachers Emailed
Traditional	Jacksonville North Pulaski	8	4,306	255
	Little Rock	42	22,338	1,786
	North Little Rock	13	8,427	169
	Pulaski County Special	24	12,101	671
Charter	Academics Plus (2001)	3	1,252	66
	Covenant Keepers (2008)	1	141	11
	eStem (2007)	3	1,968	102
	Exalt Academy of Southwest Little Rock (2013)	1	375	23
	Lighthouse (2008)	4	1,118	66
	LISA Academy (2004)	6	2,158	139
	Little Rock Preparatory Academy (2008)	2	561	32
	Premier High School of Little Rock (2012)	1	114	7
	Quest Academy (2014)	1	188	15
	Rockbridge Montessori (2014)	1	169	10
	School for Integrated Academies and Technologies (2011)	1	188	5

Once the districts and charter networks of interest were identified, I then visited each district and school website to compile emails. After compiling the emails, the survey was administered via qualtrics, which is an online entity that provides software to collect and analyze data. The administration of the survey included incentives for a gift card prize and reminders to those who had not completed the survey. After the initial distribution of the survey, four reminders were sent out to the entire email list, minus those who had already completed the survey, over a two-week period. Subsequently, an additional two reminders went out to charter school teachers who work at two of the larger charter school networks, eStem Public Charter Schools and LISA Academy, in an effort to get more responses from teachers working in charter schools. Ultimately, the overall response rate was 26%, with a 31% response rate from charter

school teachers and a 25% response rate from traditional public school teachers, as shown in Table 13. While this response rate could have been higher, it is an adequate response rate for an online survey (Sax, Gilmartin, and Bryant, 2003), and the differential rate of response of 6% is close to the What Works Clearinghouse standard of 5%.

Table 13

Survey Response Rates, by Sector

Sector	**N teachers contacted**	**N teachers responded**	**Response Rate**
Traditional	2,881	745	25%
Charter	476	148	31%
Total	*3,357*	*893*	*26%*

In response to only having a 26% survey completion rate, I conducted independent t-tests on the responses to the demographic items in the survey in an effort to demonstrate that the two groups of teachers were similar enough to compare. As shown in Table 14 below, the responses from the two groups on demographic and background information only differed significantly on teacher certification, teacher experience, highest degree earned, graduation year, and degree type, which are expected to differ by these school types and align with previous research findings. Thus, it is important that the analyses I control for these items in some of my statistical models. Also, there are no significant differences in factors like disadvantaged ethnicity status, gender, grade level taught, selectivity of undergraduate institution, and mother's education level. Overall, these statistics indicate that any differences found between the two groups are likely to align with the choice to teach in a traditional school or a charter school. Additionally, the questions on the survey tool were asked in such a way that people with extreme views would not be more likely to respond than those with views that were more moderate. For example, respondents were not asked if they liked or did not like something, in a direct manner. Therefore, I had almost no concern that my response rate caused bias in favor of either sector.

Table 14

Demographic Characteristics of Sample, by Sector

	Traditional		Charter		Total	
Characteristic	N	%	N	%	N	%
Personal						
Teaches primary level	374	50.4	66	46.8	440	49.8
Female	616	83.6	115	81.6	731	83.3
Non-disadvantaged ethnicity	503	68.3	99	70.2	602	68.6
Mother earned BA or higher	298	40.0	59	41.3	531	40.2
Experience						
Novice (1-3 yrs)	109	14.6	61	42.9	170	19.1
Experienced (4-10 yrs)	203	27.1	52	36.6	255	28.7
Veteran (11+ yrs)	436	58.3	29	20.4	465	52.2
Licensed	629	84.2	90	62.9	719	80.8
Education						
Non-Selective undergraduate institution	436	62.4	83	61.5	519	62.2
Education undergraduate degree	469	66.5	57	42.9	526	62.8
Earned MA or higher	460	61.7	64	44.8	524	59.0
Graduated College 10+ years ago	466	67.3	55	40.4	521	62.9

Analytic Methods

Methods for Question 1

My first research question examines differences in demographic and educational backgrounds between teachers in charter schools and teachers in traditional public schools. To investigate these differences, I estimated a regression model in which school type, charter or traditional, was the outcome variable and all of the demographic and educational background variables were the predictor variables.

Methods for Questions 2 and 3

To determine the impact of teaching in a charter school or a traditional school on the seven constructs previously described, I utilized a multiple regression model to estimate each construct outcome measure. The equation below provides the multiple regression model:

$$Y_i = \beta_0 + \beta_1 X_{charter} + \beta_2 X_{secondary} + \beta_3 X_{male} + \beta_4 X_{disadvantaged\ ethnicity} + \beta_5 X_{motherBA+} + \beta_6 X_{exper} + \beta_7 X_{non\text{-}licensed} + \beta_8 X_{selective} + \beta_9 X_{masters} + e_i$$

where:

- Y_i is the construct score (career advancement, work/life balance, love of teaching, social justice, attitude toward school policy changes, professional commitment to student learning, and perception of personal agency in the work environment) for teacher i
- β_0 is the intercept
- β_1 is the slope for predictor $X_{charter}$, a binary variable indicating whether a teacher worked in a charter school or traditional school (1 = charter school, 0 = traditional school)
- β_2 is the slope for predictor $X_{secondary}$, a binary variable indicating the grade span in which a teacher taught (1=secondary, 0=primary)
- β_3 is the slope for predictor X_{male}, a binary variable indicating a teacher's gender (1 = male, 0 = female)
- β_4 is the slope for predictor $X_{disadvantaged\ ethnicity}$, a binary variable indicating a teacher's ethnicity (1 = disadvantaged ethnicity (African-American, Native American, or Hispanic), 0 = non-disadvantaged ethnicity (Caucasian or Asian))
- β_5 is the slope for predictor $X_{motherBA+}$, a binary variable indicating the education level of the mother of the teacher (1 = bachelor's degree and above, 0 = up to high school)

- β_6 is the slope for predictor X_{exper}, a series of binary dummy variables indicating if a teacher was considered a novice (1 to 3 years), experienced (4 to 10 years), or veteran (11 or more years) teacher in terms of years taught
- β_7 is the slope for predictor $X_{non\text{-}license}$, a binary variable indicating if a teacher was licensed through a traditional teaching degree (0=licensed by teaching degree, 1=otherwise qualified to teach)
- β_8 is the slope for predictor $X_{selective}$, a binary variable indicating if a teacher attended a selective undergraduate institution (1 = attended a selective institution, 0 = attended a non-selective institution)
- β_9 is the slope for predictor $X_{masters}$, a binary variable indicating a teacher's highest degree earned (1 = master's degree and above, 0 = bachelor's degree only)
- e_i is the residual for teacher i.

For each outcome measure, I ran three regression models. The first model was the parsimonious model and included only the focal predictor variable (the dummy variable for charter) and the dummy variable for being a secondary school educator, since the level of the teacher likely matters for several of the outcomes considered, but is unrelated to the teacher's choice to work in a public charter or traditional public environment. The second model added in predictor variables related to teacher characteristics including gender, disadvantaged ethnicity status, and mother's education level. The third model was the most highly developed model and included all of the variables in the above equation. Part of the difference between charter and traditional schools might be that charters appeal to different types of people. Thus, while it is informative to see whether teacher background and experience drive any differences (model 3), the second model, which does not include such controls, is my preferred model to assess

differences in views between charter and traditional public school teachers. In other words, model 2 presents differences between charter school teachers and traditional school teachers, controlling for their demographics. Model 3, which adds controls for teacher specific characteristics, demonstrates why differences between the two groups may exist. For example, if charter school teachers are found to be significantly younger than traditional school teachers, they could differ in their perceptions of teaching, because they are younger and therefore, possibly more optimistic than their traditional sector peers.

Summary

In order to have a better idea of the differing and shared character traits of teachers working in charter and traditional schools, I analyzed and compared the survey responses from teachers working in both sectors. Utilizing a multiple regression model to estimate each construct outcome measure, I determined if there are any significant differences in the control variables predicting the various outcomes: career advancement, work/life balance, love of teaching, social justice, attitude toward school policy changes, professional commitment to student learning, and perception of personal agency in the work environment. Overall, the analyses could have been stronger if I had a higher response rate and conducted reliability and validity tests on the constructs prior to administering the survey tool.

Chapter 4: Results

This study examines potential differences in teachers who choose to teach in a charter school or teach in a traditional public school. Specifically, the study looks for differences in teacher demographic and educational backgrounds, motivations for joining the teaching profession, and/or different perceptions and attitudes towards education, using multiple regression analyses to predict the eight outcomes previously outlined in the methods chapter. The parameters of the model are specified in the methods chapter, but for these purposes, the key coefficient of interest was the charter variable, a binary variable that indicated whether a teacher decided to teach in a charter school (1) or a traditional school (0).

To answer my first question on differences in demographics and educational backgrounds in the two teaching sectors, I estimated a regression model in which school type, charter or traditional, was the outcome variable and all of the demographic and educational background variables were the predictor variables.

Question 1: Differences in the Characteristics of Teachers in Charters v. Traditional Schools

My regression model estimates the outcome of working in a charter school on numerous predictor variables such as teaching primary or secondary grades, gender, disadvantaged ethnicity status, mother's level of education, teaching experience, licensed staff, undergraduate college selectivity, and highest degree obtained. Thus, the coefficients on each control variable provide information about the magnitude and direction of the difference between teachers in these predictor variables, and whether or not the difference in those variables is tied to being a teacher at a traditional school or a teacher at a charter school.

Table 15

Teacher Characteristics Associated with Charter Employment

Teacher Characteristics	Variables	SE	p-value
Secondary	0.01	(0.03)	--
Male	-0.01	(0.03)	--
Disadvantaged ethnicity	-0.04	(0.03)	--
Mother earned BA or higher	-0.01	(0.03)	--
Teacher experience Novice Dummy, 1 - 3 years	0.24***	(0.03)	0.001
Teacher experience Experienced Dummy, 4 - 10 years	0.12***	(0.03)	0.001
Teacher experience Veteran Dummy, 11 or more years	Omitted		--
Non-licensed	0.16***	(0.03)	0.001
Selective college	0.00	(0.03)	--
Master's degree or higher	-0.03	(0.03)	--
Constant	0.08**	(0.03)	0.05
Adjusted R-squared	0.11		
Regression N	815		
Mean of Y (SD)	0.16 (0.37)		

*** p<0.01, ** p<0.05, * p<0.1

The estimated regression coefficients and standard errors for all variables included in my regression analyses are presented in Table 15. The analysis produced a model that was able to explain some of the variation in the outcome variable: adjusted $R^2 = 0.117$, $F(9, 805) = 11.83$, $p < 0.001$.

The results of these analyses show that there were significant differences observed on the three predictor variables: teaching experience novice, teaching experience experienced, and non-

licensed. These differences are consistent with intuition, because teachers who choose teaching as their lifetime career would likely choose to do so in traditional public schools because they provide a more stable environment that offers job security through things like teacher tenure and school district perpetuity. In addition, charter schools, free from certain laws and regulations, have the ability to hire unlicensed teachers, where traditional districts usually do not.

Additionally, in reference to the raw data, there appeared to be differences in teaching experience between the two groups. More than half (58%) of the traditional public school teachers surveyed indicated that they had taught in schools for 11 or more years (veteran teachers), while only 21% of charter school teachers indicated the same. So with 43% of charter school teachers indicating that they had only been teaching for 1 to 3 years (novice teachers) and the other 36% indicating they had been teaching school for 4 to 10 years (experienced teachers), it makes sense that the regression model would produce significant results showing that charter school teachers were more likely to fall into the less experienced categories of novice and experienced teachers, as compared to traditional public school teachers.

Interestingly, there were no statistically significant differences in terms of gender, disadvantaged ethnicity status, mother's level of education, selectivity of college attended, or obtaining a master's degree. Prior research often finds charter school teachers more likely to be male, disadvantaged ethnicity, and have attended selective undergraduate institutions. The research suggests this is because charters attract such teachers with their missions and short routes to promotion into leadership roles.

Again, the lack of significant differences in these areas is perfectly consistent with the descriptive results. The percentages of teachers who indicated they were male for charter schools (18%) was only 2% higher than it was for traditional public schools (16%). There is a

similar story with disadvantaged ethnicity status, as about 30% of charter school teachers and 32% of traditional public school teachers indicated that they belong to an ethnic disadvantaged ethnicity group. In this case of mother's level of education, the story repeats itself, with about 60% of traditional public school teachers indicating that their mothers had only obtained a high school diploma, and about 59% of charter school teachers indicated the same.

Although not significant, the negative coefficient on the master's degree predictor variable does line up with previous research, suggesting that traditional public school teachers are more likely to hold advanced degrees than charter school teachers. In addition, the raw data corroborate these findings. Sixty-two percent of teachers who work in traditional public schools indicated that they had earned a master's degree, while the same is true for only 45% of teachers who work in charter schools. This condition is common for traditional school teachers, because of the teacher salary scale, which rewards additional credentials with increased pay.

Question 2: Differences in the Motivations to Teach of Teachers in Charters v. Traditional Schools

My second research question examines the differences in motivations for joining the teaching profession between teachers in charter schools and teachers in traditional public schools and/or different perceptions and attitudes towards education. The survey response options forced teachers to choose amongst motivations within four sub-constructs: career advancement, love of teaching, social justice, and work/life balance. I estimated three regression models for each of the possible four motivation sub-construct outcomes. For each outcome, the first model is the most parsimonious and consists only of the charter indicator variable and the secondary school indicator (since it is possible that elementary teachers may have different attitudes and motivations than do secondary teachers, regardless of school sector). The objective of this first

model is to investigate whether charter school teachers, regardless of the level of the school, have different motivations for teaching than do traditional teachers. For the second model, I add in teacher demographic attributes to examine whether the charter differences (if they exist) remain after controlling for teacher personal characteristics such as gender, disadvantaged ethnicity status, and mother's highest level of education obtained. Finally, in the third model, I add in other teacher characteristics related to their training and experience; this addition is important as initial analyses suggest that charter schools are more likely to hire inexperienced or uncertified teachers, and differences in motivation for teaching might be due to education and experience rather than charter or traditional sector selection.

To answer this question, as I described in the prior chapter, I ran three regression models for each of the four sub-constructs (career advancement, love of teaching, social justice, and work/life balance):

Model 1: Charter indicator variable and the secondary school indicator

Model 2: Teacher demographic attributes are added to Model 1

Model 3: Teacher characteristics related to their training and experience are added to Model 2.

Motivation Sub-construct: Career Advancement

The regression models estimate the Career Advancement motivation construct as a function of numerous other predictor variables, including the focal variable of employment in a charter school. The Career Advancement motivation construct had a mean of 0.69 with a standard deviation of 1.19. With a minimum response of one and a maximum response of seven, the mean of less than one demonstrates that very few of the teachers responding to the survey

were primarily motivated to join the teaching profession by career advancement reasons, such as a desire to “move into leadership positions” or to “achieve results through hard work”.

Table 16

Career Advancement Sub-Construct Results

	Model 1	Model 2	Model 3
Charter	0.19*	0.20*	0.11
	(0.11)	(0.11)	(0.12)
Secondary	0.15*	0.05	0.05
	(0.08)	(0.08)	(0.09)
Male		0.46***	0.50***
		(0.11)	(0.12)
Disadvantaged ethnicity		0.37***	0.41***
		(0.09)	(0.09)
Mother earned BA or higher		0.19**	0.18**
		(0.08)	(0.08)
Teacher experience Novice Dummy, 1 - 3 years			0.33***
			(0.12)
Teacher experience Experienced Dummy, 4 - 10 years			0.33***
			(0.10)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			-0.05
			(0.11)
Selective college			-0.09
			(0.09)
Master's degree or higher			0.29***
			(0.09)
Constant	0.59***	0.36***	0.10
	(0.06)	(0.07)	(0.11)
Adjusted R-squared	0.005	0.047	0.070
Regression N	880	858	804
Mean of Y (SD)	0.69 (1.19)		

*** p<0.01, ** p<0.05, * p<0.1

Significant regression equations were found for all three models, although none of the analyses produced a strong model in terms of explaining the variation in Career Advancement motivation to teach. The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 16.

Model 1:, F (2,880) = 3.23, $p < 0.05$; adjusted $R^2 = 0.005$

Model 2: F (5,858) = 9.46, $p < 0.001$; adjusted $R^2 = 0.047$

Model 3: F(10,804) = 7.16, $p < 0.001$; adjusted $R^2 = 0.070$

It appears that teachers who choose to teach in charter schools and teachers who choose to teach in traditional schools do differ when it comes to their primary motivation in becoming a teacher being tied to desires for career advancement. Significant differences in Career Advancement were observed on the charter indicator in the first two regression models.

In the most parsimonious model, including only school level variables, the coefficient differentiating on the key indicator, charter, was 0.19 and was statistically significant at the 0.10 level. This small and significant coefficient increased slightly when teacher characteristics were included in the second regression to 0.20, and was statistically significant at the 0.10 level. Both of these findings translate into a difference of about one sixth of a standard deviation. However, in the third regression, the charter coefficient became smaller and was no longer statistically significant.

Thus, although relatively few teachers revealed motivations related to career advancement, charter school teachers, male teachers, disadvantaged ethnicity teachers, and teachers from relatively highly educated families were significantly more likely to indicate that they were motivated by a desire for career advancement. Not only are these differences statistically significant, they appear to be large in magnitude. For example, male teachers had

career advancement motivation scores that were 0.46 points higher than their female peers. This difference represents approximately two fifths of a standard deviation on this measure. On this same measure, disadvantaged ethnicity teachers have a score that is roughly one third of a standard deviation greater than that of non-disadvantaged disadvantaged ethnicity teachers.

Even though the third model is not my preferred model, the findings on the predictor variables are interesting. Looking at the significant difference between less experienced teachers and more experienced teachers, it appears that novice (1 to 3 years of experience) and experienced (4 to 10 years of experience) teachers are more likely to have joined the teaching profession due to career ambitions than veteran teachers (11 or more years of experience). Those differences are a little more than one fourth of a standard deviation, which is gleaned from the 0.33 coefficient for each of those predictor variables. In addition, a similar story appears to be true for teachers who hold a master's degree or higher in comparison to teachers who only have a bachelor's degree. With a coefficient of 0.29, the difference represents about one fourth of a standard deviation.

Motivation Sub-construct: Love of Teaching

The second sub-construct focused on teacher motivation revolves around the strong attraction to the profession itself, which allows teachers to work with students and to study subjects they find interesting. This motivator for entering the profession was far more popular with my sample. Overall, the mean score of the responses to the Love of Teaching construct was 4.37 with a standard deviation of 1.54. With a minimum response of one and a maximum response of seven, the mean of greater than four demonstrates that many of the teachers responding to the survey selected motivation choices that were related to their love of the teaching occupation and the characteristics of the job. These teachers often chose the following

responses on the survey: to work with children, to teach a subject I love, and to watch students learn, grow, and improve.

Table 17

Love of Teaching Sub-Construct Results

	Model 1	Model 2	Model 3
Charter	0.12	0.12	0.22
	(0.14)	(0.14)	(0.15)
Secondary	0.26**	0.27**	0.30**
	(0.10)	(0.11)	(0.11)
Male		-0.16	-0.03
		(0.14)	(0.14)
Disadvantaged ethnicity		-0.79***	-0.79***
		(0.11)	(0.12)
Mother earned BA or higher		-0.14	-0.14
		(0.10)	(0.11)
Teacher experience Novice Dummy, 1 - 3 years			-0.31**
			(0.15)
Teacher experience Experienced Dummy, 4 - 10 years			-0.40***
			(0.12)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			-0.07
			(0.14)
Selective college			0.02
			(0.11)
Master's degree or higher			-0.38***
			(0.11)
Constant	4.22***	4.55***	4.89***
	(0.08)	(0.09)	(0.14)
Adjusted R-squared	0.006	0.061	0.078
Regression N	880	858	804
Mean of Y (SD)	4.37(1.54)		

*** p<0.01, ** p<0.05, * p<0.1

The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 17. As previously described, and shown in Table 17, I estimated three multiple regression models, with the number of control variables increasing each time. The strength of the three models in terms of explaining the variation in the outcome Love of Teaching variable are outlined below :

Model 1: adjusted $R^2 = 0.001$, $F(2,880) = 3.54$, $p < 0.05$;

Model 2: adjusted $R^2 = 0.061$, $F(5,858) = 12.20$, $p < 0.001$;

Model 3: adjusted $R^2 = 0.089$, $F(10,804) = 7.87$, $p < 0.001$.

The results of these analyses show that there were no significant differences observed on the key charter indicator in any of the three regression models. Nevertheless, model three reveals some interesting differences amongst the predictor variables. This model indicates that secondary teachers, non-disadvantaged ethnicity teachers, veteran teachers, and teachers who have only obtained a bachelor's degree are more likely to have selected responses associated with Love of Teaching. Interestingly enough, there were no significant differences found on the gender, mother's level of education, non-licensed, or selective college predictor variables.

Looking at the 0.30 coefficient for the secondary predictor variable, the difference between secondary teachers being motivated by a love of teaching is about one fifth of a standard deviation. Almost twice as large, the -0.79 coefficient on the disadvantaged ethnicity predictor variable, represents about half of a standard deviation. This indicates that non-disadvantaged disadvantaged ethnicity teachers were far more likely to select responses associated with Love of Teaching as a motivation for entering the field.

Reviewing the significant difference between less experienced teachers and more experienced teachers, I find that more senior teachers and teachers with only a bachelor's degree

are more likely than their peers to select responses related to love of teaching. Those differences are about one fifth of a standard deviation, which is gleaned from the -0.31 and -0.40 respective coefficients for each of those predictor variables. In addition, a similar story appears to be true for teachers who hold a master's degree or higher in comparison to teachers who only have a bachelor's degree. With a coefficient of -0.38, the difference there is also about one fifth of a standard deviation, and show that teachers with master's degrees are less likely to have joined the teaching profession, because of their love of teaching, as compared to teachers who only possess a bachelor's degree.

Motivation Sub-construct: Social Justice

The third option I offered respondents as a motivation for entering teaching was Social Justice. The overall construct outcomes indicate that some of these choices were also popular with survey respondents; the mean of responses to the Social Justice construct was 2.51 with a standard deviation of 1.77. With a minimum response of one and a maximum response of six, the mean of less than three demonstrates fewer than half of the teachers responding to the survey claimed to be motivated to join the teaching profession for social justice reasons. The teachers who did join the teaching profession in pursuit of social justice work often chose the following responses on the survey: to work towards educational equity, to have a sense of fulfilment through helping others, and to work in a low-income community.

Table 18

Social Justice Sub-Construct Results

	Model 1	Model 2	Model 3
Charter	-0.03	-0.06	-0.14
	(0.16)	(0.16)	(0.18)
Secondary	-0.48***	-0.31**	-0.34***
	(0.12)	(0.12)	(0.13)
Male		-0.54***	-0.56***
		(0.17)	(0.17)
Disadvantaged ethnicity		0.51***	0.52***
		(0.13)	(0.14)
Mother earned BA or higher		-0.09	-0.14
		(0.12)	(0.13)
Teacher experience Novice Dummy, 1 - 3 years			0.35*
			(0.18)
Teacher experience Experienced Dummy, 4 - 10 years			0.11
			(0.15)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			0.11
			(0.16)
Selective college			0.04
			(0.13)
Master's degree or higher			0.21
			(0.13)
Constant	2.75***	2.64***	2.46***
	(0.09)	(0.11)	(0.16)
Adjusted R-squared	0.016	0.043	0.045
Regression N	880	858	804
Mean of Y (SD)	2.51(1.77)		

*** p<0.01, ** p<0.05, * p<0.1

The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 18. As previously described, and shown in Table 18, I estimated three multiple regression models, with the number of control variables increasing each time. The strength of the three models in terms of explaining the variation in the outcome Social Justice variable are outlined below:

Model 1: adjusted $R^2 = 0.016$, $F(2,880) = 8.32$, $p < 0.001$;

Model 2: adjusted $R^2 = 0.043$, $F(5,858) = 8.76$, $p < 0.001$;

Model 3: adjusted $R^2 = 0.045$, $F(10,804) = 4.86$, $p < 0.001$.

The results of these analyses show that there were no significant differences observed on the key charter indicator in any of the three regression models. Nevertheless, model three shows some interesting differences amongst different types of teachers with regard to preference for social justice as a motivator. This model indicates that primary teachers, female teachers, disadvantaged ethnicity teachers, and novice teachers are more likely to have chosen teaching as a profession, because of the prospect of influencing social change.

Perhaps surprisingly, teachers in secondary school were less likely to select social justice-related responses than were primary school teachers; the difference is about one fifth of a standard deviation. Similarly, but not surprisingly, males were less likely than females to identify social justice reasons for entering teaching; the difference here represents nearly one third of a standard deviation. Disadvantaged ethnicity teachers also scored significantly higher on the social justice scale, with scores that are about one third of a standard deviation greater than the scores of non-disadvantaged ethnicity teachers. Finally, junior teachers were significantly more likely to identify social justice as a motivation for entering the teaching profession than senior teachers.

Motivation Sub-construct: Work/Life Balance

Just as few teachers in the sample identified career advancement opportunities as motivations for entering the teaching profession, very few teachers in the sample identified some of the very practical job characteristics associated with work/life balance as primary motivators for choosing this vocation. Indeed, the Work/Life Balance motivation construct had a mean of 1.41 with a standard deviation of 1.62. With a minimum response of one and a maximum response of eight, the mean of just above 1 demonstrates that very few of the teachers responding to the survey were motivated to join the teaching profession by work/life balance reasons, such as a desire to work close to home, have summers off, and have a balance of work and life. Of course, these responses appear somewhat selfish, so teachers interested in providing the socially desirable responses would certainly avoid such choices.

Table 19

Work/Life Balance Sub-Construct Results

	Model 1	Model 2	Model 3
Charter	-0.27*	-0.24	-0.27*
	(0.15)	(0.15)	(0.16)
Secondary	0.30***	0.25	0.20*
	(0.11)	(0.11)	(0.12)
Male		0.11	0.11
		(0.15)	(0.16)
Disadvantaged ethnicity		-0.27**	-0.28**
		(0.12)	(0.13)
Mother earned BA or higher		-0.03	0.01
		(0.11)	(0.12)
Teacher experience Novice Dummy, 1 - 3 years			-0.24
			(0.16)
Teacher experience Experienced Dummy, 4 - 10 years			-0.02
			(0.13)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			0.15
			(0.15)
Selective college			0.05
			(0.12)
Master's degree or higher			0.03
			(0.12)
Constant	1.31***	1.40***	1.40***
	(0.08)	(0.10)	(0.15)
Adjusted R-squared	0.010	0.011	0.010
Regression N	880	858	804
Mean of Y (SD)	1.41 (1.62)		

*** p<0.01, ** p<0.05, * p<0.1

In fact, we learn very little from the models focused on this motivating factor, as all three regression models boast adjusted R-squared values in the neighborhood of .01 or below. The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 19.

Model 1: adjusted $R^2 = 0.001$, $F(2,880) = 5.42$, $p < 0.05$;

Model 2: adjusted $R^2 = 0.011$, $F(5,858) = 2.89$, $p < 0.05$;

Model 3: adjusted $R^2 = 0.010$, $F(10,804) = 1.86$, $p < 0.05$.

These regression analyses, while corroborating my initial prediction that charter school teachers are less likely to admit to being drawn by the practical comforts of the profession, lack explanatory power with such low adjusted R squared values. This low power likely exists because so few respondents identified with the response options in the first place. Furthermore, the significance of the coefficient of the charter indicator inconsistently goes from being significant in model 1 to not being significant in model 2, and becoming significant again in model 3. This inconsistency suggests that these analyses are not reliable and little should be interpreted with caution.

Question 3: Differences in the Attitudes of Teachers in Charters v. Traditional Schools

My third research question examines the differences in perceptions of and attitudes towards education between teachers in charter schools and teachers in traditional public schools. Consistent with the prior research question, I estimated three regression models for seven outcomes. Again, the first model is the most parsimonious and consists only of the charter indicator variable and the secondary school indicator to investigate whether charter teachers, regardless of the level of the school, have different views of education than do traditional teachers. Teacher demographic attributes are again added into the second model to examine

whether the charter differences (if they exist) remain after controlling for teacher personal characteristics such as gender, disadvantaged ethnicity status, and mother's highest level of education obtained. Finally, in the third model, I again add in other teacher characteristics related to their training and experience to examine if training and experience explain attitude differences between charter and traditional public school teachers.

To answer each of the three attitude related questions, I ran three regression models with increasing numbers of control variables (just as I did for the motivation questions).

Attitudes Towards School Policy Changes Construct

This construct was built to measure the extent to which teachers reveal a willingness to adopt school policy changes that might lead to improved academic performance at the school. To some extent, this measures flexibility on the part of the respondent. This construct is based on a total of six items, such as "your school requires weekly observations and feedback to help develop quality instructions" and "all teachers will be required to work 2 days of Saturday school each month focused on student interventions and enrichment."

The attitudes towards school policy change construct had a mean of 1.99 with a standard deviation of 0.58. With a minimum response of one and a maximum response of four, the mean of close to two, coupled with a relatively small standard deviation, demonstrates that on average teachers' attitudes fell in the middle of the scale when responding to the Likert items on the survey. This means that teachers would likely either support or not support the policy changes and would be less likely to definitely support or definitely not support the proposed policy changes.

Table 20

Attitude Towards School Policy Change Results

	Model 1	Model 2	Model 3
Charter	0.23***	0.24***	0.29***
	(0.05)	(0.05)	(0.06)
Secondary	-0.03	-0.01	-0.2
	(0.04)	(0.04)	(0.04)
Male		-0.06	-0.08
		(0.05)	(0.06)
Disadvantaged ethnicity		0.27***	0.26***
		(0.04)	(0.04)
Mother earned BA or higher		0.01	0.01
		(0.04)	(0.04)
Teacher experience Novice Dummy, 1 - 3 years			-0.02
			(0.06)
Teacher experience Experienced Dummy, 4 - 10 years			0.00
			(0.05)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			-0.05
			(0.05)
Selective college			-0.03
			(0.04)
Master's degree or higher			0.08*
			(0.04)
Constant	1.97***	1.89***	1.87***
	(0.03)	(0.03)	(0.05)
Adjusted R-squared	0.020	0.065	0.066
Regression N	880	858	804
Mean of Y (SD)	1.99(0.58)		

*** p<0.01, ** p<0.05, * p<0.1

Significant regression equations were found for all three models, although none of the analyses produced a strong model in terms of explaining the variation in teacher attitudes towards school policy changes. The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 20.

Model 1 adjusted $R^2 = 0.020$, $F(2,880) = 9.93$, $p < 0.001$;

Model 2 adjusted $R^2 = 0.065$, $F(5,858) = 13.02$, $p < 0.001$;

Model 3 adjusted $R^2 = 0.066$, $F(10,804) = 6.79$, $p < 0.001$.

Significant differences in teacher attitudes towards school policy changes were observed on the charter indicator in all three regression models. In the most parsimonious model, including only school level variables, the coefficient on the key indicator, charter, was 0.23 and was statistically significant at the 0.001 level. This small and significant coefficient increased slightly to 0.24 and 0.29 when teacher characteristics, backgrounds, and experience were included in the second and third regressions, respectively. All of these coefficients were statistically significant at the 0.001 level. All of these findings translate into a difference of about one-half of a standard deviation. This size standard deviation indicates a large difference in the willingness of charter school teachers to support school policy changes related to increasing student achievement compared to that of traditional public school teachers.

Looking at the 0.27 (model 2) and 0.26 (model 3) coefficient for the disadvantaged ethnicity predictor variable, the difference between disadvantaged ethnicity teachers and non-disadvantaged ethnicity teachers having positive attitudes towards school policy changes is also about one-half of a standard deviation. Though not as large, the story is similar for the 0.08 coefficient on the master's degree or better predictor variable. It appears that the difference of

more educated teachers having positive attitudes towards school policy changes is also about one-seventh of a standard deviation greater than that of less educated teachers.

Even though they are not significant, the findings on the other predictor variables in the third model are interesting. My results suggest that being supportive of school policy changes has very little to do with teaching experience. These findings seem to also be true and similar on the secondary, gender, mother's level of education, non-licensed, and college selectivity predictor variables.

Professional Commitment to Student Learning

This construct was built to measure a teacher's professional commitment to student learning. To some extent, this scale measures the way teachers view what they need to do in order to be successful in producing high quality student-learning outcomes. This construct is based on a total of five items, such as "I believe it is a teacher's job to create a learning environment that is conducive to the development of students' self-confidence and competence" and "I am committed to critical self-reflection for my professional growth."

The attitudes towards personal commitment to student learning construct had a mean of 3.27 with a standard deviation of 0.45. With a minimum response of one and a maximum response of four, the mean of over three demonstrates that on average teachers' attitudes fell towards the positive end of the scale when responding to the Likert items on the survey. More specifically, teachers were choosing "agree" and "strongly agree" at higher rates than "disagree" and "strongly disagree", when responding to items tied to their personal commitment to student learning.

Table 21

Professional Commitment to Student Learning Results

	Model 1	Model 2	Model 3
Charter	0.07*	0.08*	0.09**
	(0.04)	(0.04)	(0.04)
Secondary	-0.19***	-0.16***	-0.16***
	(0.03)	(0.03)	(0.03)
Male		-0.15***	-0.15***
		(0.04)	(0.04)
Disadvantaged ethnicity		0.03	0.02
		(0.03)	(0.03)
Mother earned BA or higher		0.02	0.04
		(0.03)	(0.03)
Teacher experience Novice Dummy, 1 - 3 years			-0.02
			(0.04)
Teacher experience Experienced Dummy, 4 - 10 years			0.02
			(0.04)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			-0.03
			(0.04)
Selective college			-0.02
			(0.03)
Master's degree or higher			0.03
			(0.03)
Constant	3.36***	3.36***	3.34***
	(0.02)	(0.03)	(0.04)
Adjusted R-squared	0.045	0.065	0.061
Regression N	882	863	814
Mean of Y (SD)	3.27(0.45)		

*** p<0.01, ** p<0.05, * p<0.1

Significant regression equations were found for all three models, although none of the analyses produced a strong model in terms of explaining the variation in teacher attitudes towards personal commitment to student learning. The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 21.

Model 1 adjusted R^2 = -0.045, $F(2, 879) = 21.94$, $p = 0.000$;

Model 2 adjusted R^2 = 0.065, $F(5, 857) = 13.03$, $p = 0.000$;

Model 3 adjusted R^2 = 0.061, $F(10, 803) = 6.27$, $p = 0.000$.

Significant differences in teacher attitudes towards personal commitment to student learning were observed on the charter indicator in all three regression models. In the most parsimonious model, including only school level variables, the coefficient on the key indicator, charter, was 0.07 and was statistically significant at the 0.10 level. This small and significant coefficient increased slightly when teacher characteristics, backgrounds, and experience were included in the second and third regressions to 0.08, significant at the 0.10 level and 0.09, significant at the 0.05 level, respectively. All of these findings translate into a difference of about one sixth of a standard deviation. This indicates a small to moderate difference in the level of commitment that charter school teachers have toward student learning compared to the level of traditional public school teachers.

Looking at the -0.19 (model 1) and -0.16 (model 2 and model 3) coefficient for the secondary predictor variable, the significant difference (at the 0.001 level) between primary teachers and secondary teachers having positive attitudes towards personal commitment to student learning is also about one-third of a standard deviation. Almost as large, the story is similar for the -0.15 coefficient on the male predictor variable. It appears that the difference of

male teachers having a having positive attitudes towards personal commitment to student learning is also about one-third of a standard deviation less than that of female teachers.

Even though they are not significant, the findings on the other predictor variables in the third model are interesting. Looking at the coefficients on all of the other predictor variables, their magnitudes all fall between 0.02 and 0.03. In other words, it appears that having a high level of personal commitment to student learning has very little to do with disadvantaged ethnicity status, level of teaching experience, licensure status, the selectivity of the college attended, and educational attainment of teacher in my sample.

Perception of Personal Agency in the Work Environment Construct

This construct was built to measure a teacher's perception of their own personal agency within their school. To some extent, this construct measures the way teachers view their ability to work with their building administrator to effect change in the school. This construct is based on a total of seven items, such as "At my school, I could easily initiate a new program or student club" and "My building leader welcomes feedback from teachers."

The perceptions of personal agency within their work environment construct had a mean of 2.68 with a standard deviation of 0.58. With a minimum response of one and a maximum response of four, the mean between two and three demonstrates that on average teachers' attitudes fell in the middle of the scale when responding to the Likert items on the survey. This means that teachers would likely either agree or disagree with the statements describing personal agency in their work environments.

Table 22

Perception of Personal Agency in the Work Environment Results

	Model 1	Model 2	Model 3
Charter	0.06	0.07	0.14**
	(0.05)	(0.05)	(0.06)
Secondary	-0.07*	-0.10**	-0.11**
	(0.04)	(0.04)	(0.04)
Male		0.07	-0.09*
		(0.05)	(0.06)
Disadvantaged ethnicity		-0.02	-0.03
		(0.04)	(0.04)
Mother earned BA or higher		0.06	0.06
		(0.04)	(0.04)
Teacher experience Novice Dummy, 1 - 3 years			-0.15**
			(0.06)
Teacher experience Experienced Dummy, 4 - 10 years			-0.12**
			(0.05)
Teacher experience Veteran Dummy, 11 or more years			Omitted
Non-licensed			-0.02
			(0.05)
Selective college			-0.02
			(0.04)
Master's degree or higher			0.04
			(0.04)
Constant	2.71***	2.70***	2.76***
	(0.03)	(0.04)	(0.05)
Adjusted R-squared	0.003	0.007	0.019
Regression N	880	858	804
Mean of Y (SD)	2.68(0.58)		

*** p<0.01, ** p<0.05, * p<0.1

Significant results were found only on the third regression model, and none of the analyses produced a strong model in terms of explaining the variation in teacher perceptions of personal agency within their work environment. The estimated regression coefficients and standard errors for all of the variables included in my regression analyses are presented in Table 22.

Model 1 adjusted $R^2 = 0.003$, $F(2, 880) = 2.38$, $p < 0.10$;

Model 2 adjusted $R^2 = 0.007$, $F(5, 858) = 2.16$, $p < 0.10$;

Model 3 adjusted $R^2 = 0.019$, $F(10, 804) = 2.56$, $p < 0.001$.

With such low explanatory power, interpretations of these analyses should not hold much weight. It appears that teachers who choose to teach in charter schools and teachers who choose to teach in traditional schools do differ when it comes to their perceptions of personal agency within their work environment. Significant differences in teacher perceptions of personal agency within their work environment were observed on the charter indicator in the third regression model, which is not my preferred model. This model indicates a moderate difference between the sectors, and that charter school teachers are more likely to see themselves as having a high level of personal agency within their work environments, after controlling for experience and educational background. Overall, it appears that more experienced teachers and primary teachers, where the indicator is significant in each model, see themselves as having a high level of personal agency within their schools. Interestingly, the appearance of a significant difference here between charter school teachers and traditional school teachers only becomes apparent after controlling for the fact that charter school teachers are more likely to be inexperienced. Thus, for teachers with similar levels of experience teaching at similar school levels, those in charters perceive higher levels of personal agency.

Summary

Charter school teachers and traditional public school teachers were found to be mostly similar in terms of their backgrounds and teacher characteristics. The only statistically significant differences found between the two groups were that traditional public school teachers were more likely to be licensed and more likely to be veteran teachers, having taught eleven or more years. These two difference are in line with the nature of charter schools being free from the regulation of having to hire licensed teacher and being less secure work environments for teachers who want to be career teachers.

Using my own unique motivation construct to try to sort out potential differences in motivations, I find that roughly half of the sample of teachers surveyed claimed to be primarily motivated by the intrinsic characteristics of the teaching profession, like working with children and teaching a beloved subject. Of the remaining teachers surveyed a slightly smaller fraction claimed to have entered the field for reasons related to educational equity and social justice. In these two areas, there were no significant differences between charter school teachers and traditional public school teachers.

The other two motivation options available to respondents were career advancement and work/life balance. Even though relatively few respondents selected responses related to career advancement, charter teachers were more likely to do this. On the work/life balance item responses, I am hesitant to draw any conclusions because the regression models exhibited very little predictive power.

Regarding teacher attitudes towards schools and teaching, I did uncover some interesting differences between charter teachers and traditional teachers. Charter school teachers were found to have more positive attitudes towards school policy changes, a stronger professional

commitment to student learning, and perceived themselves to have a higher level of personal agency within their schools than traditional public school teachers, at least after controlling for their relative inexperience. These findings suggest that there is something about the charter school environment, which cultivates different attitudes towards schools and teaching. Perhaps, the deregulation and often small school settings allow teachers to be more flexible and feel more autonomous as they work to meet student needs.

Chapter 5: Discussion

Using multivariate analyses of survey responses, this study focused on answering the following questions: How do charter school teachers differ from traditional public school teachers in three general areas: 1) Background and personal characteristics, 2) Motivations for entering the profession, and 3) Attitudes toward teaching and schools? In this chapter, I will first summarize and discuss the findings. Then I will walk through a discussion of results by each question and construct. Finally, I will discuss limitations of the study and make suggestions for future research.

Summary and Implications of Results

As shown in Table 23, significant differences were found in teaching experience and certification status. More specifically, charter school teachers were found to be more likely to have fewer years of experience and less likely to be licensed than traditional public school teachers. These findings correspond with previous research (Podgursky, 2007). In addition, these findings make sense given the regulatory freedoms that charter schools are allowed to exercise. For example, charter schools in most states are allowed to hire teachers that are non-licensed, whereas traditional public schools are widely prohibited from hiring teachers who are non-licensed.

Table 23

Summary of Differences Found

	Key Indicator	Teacher Personal Background	Teacher Experience	Teacher Education Background
Demographics	--	No Differences	Novice Teachers	Non-Licensed
Motivations				
Career Advancement	Charter	Male, Disadvantaged ethnicity, Educated Mother	Novice Teacher, Experienced Teacher	Master's Degree
Love of Teaching	Neutral	Non-Disadvantaged ethnicity	Veteran Teacher	Secondary, Bachelor's Degree
Social Justice	Neutral	Female, Disadvantaged ethnicity	Novice Teacher	Primary
Work/Life Balance	Traditional	Non-Disadvantaged ethnicity		Secondary
Attitudes Towards				
Policy Changes	Charter	Disadvantaged ethnicity		Master’s Degree
Professional Commitment to Student Learning	Charter	Female		Primary
Perceptions of Personal Agency within the Work Environment	Charter	Female	Veteran Teacher	Primary

Interestingly enough, the survey sample did not show any of the other differences between the two teaching groups that have come up repeatedly in previous research. No significant differences were found between charter school teachers and traditional public school teachers on gender, disadvantaged ethnicity status, or college selectivity. In previous studies charter school teachers have been found to more likely be male, disadvantaged ethnicity, and graduates of more selective colleges than their counterparts. The nature of the charter market in Pulaski County may help explain the lack of differences here. The majority of the charter schools in the area are not members of large charter networks and they do not share a central focus of any sort. Therefore, as a group, they are not necessarily focused on attracting a particular type of teacher. Also, the composition of students enrolled in charter schools does not largely differ from the composition of students enrolled in the traditional public schools. So, teachers looking to work with a particular student population could find that in a charter school just as easily as they could find it in a traditional public school.

The results on differences in motivations amongst teachers to enter the profession were unexpectedly mixed and small in variation. While charter school teachers were found to be more likely to enter the field motivated by career advancement, traditional school teachers were found to be more likely to enter the field motivated by the idea of maintaining a balanced work and personal life. Teachers from both sectors were found to be just as likely to have joined the profession motivated by their love of teaching and the ability to affect social change. Moreover, it seems that the two differences on motivation that were found are likely to be driven by demographic differences.

One explanation for the tenuousness of the findings may be the survey tool itself. More directly, the answers that referenced the "love of teaching" construct may have been so socially

desirable that nearly every respondent selected them. This behavior led to little variation in the responses to the overall motivation scale. Also, it seems that the charter market in Pulaski County, Arkansas, which consists of a number of small operators who do not have missions related to any of the motivations examined in this study, is not one that attracts a particular type of teacher. In short, it seems like teachers in the area are simply looking to teach and taking available positions in either sector and these job selections into either sector are not determined by the teachers' original motivations to join the teaching profession. This phenomenon would be consistent with what Redford (2014) found when he interviewed teachers who had left teaching in a traditional public school to teach in a charter school.

Thus, an important finding from this study is that charter school teachers and traditional public school teachers, in general, may not be as different as previous research suggests, at least in non-differentiated education markets such as Pulaski County, Arkansas. In fact, it may be that previous research has focused on large charter school networks, often the recruiters and recipients of teachers from competitive programs, like Teach for America, and that is the driver of the variation in results on teacher characteristics. Here it is important to note that not all charter schools are part of large networks and not all charter schools are recipients of teachers from competitive programs. Many independently run, or "mom and pop" charter schools are attracting and employing teachers similar to those that are being attracted and employed by traditional public schools. Moreover, the charter movement is now 25 years in the making, and now serves nearly three million students, so charters may resemble traditional public schools to a greater degree than in the past.

According to my third set of questions, while charter school teachers may not have different backgrounds or motivations leading them into the classroom, it is certainly possible that

the charter school culture is somewhat different, as charter school teachers do provide different answers with respect to school culture indicators. Most importantly, charter school teachers responding to this survey were more likely to:

- support school level policy changes,
- have a stronger professional commitment to student learning, and
- perceive themselves as having a high level of personal agency within their work environments (at least controlling for their relative inexperience).

These results are interesting and do not fit with the first two sets of results, but they do fit with my hypotheses. Prior to administering the survey, I expected that charter school teachers would be more flexible to change and see themselves as autonomous in the classroom. The results supported these hypotheses. Thus, while the teachers drawn to charters in Pulaski County may not be very different than those in traditional public schools, there are still differences between the "cultures" of the teaching faculty in the two sectors with respect to willingness to adopt policy changes to improve student learning, personal accountability for student learning, and perceived level of agency in the school.

Other Interesting Findings

While the key indicator, charter, did not seem to matter much on the motivations sub-constructs, disadvantaged ethnicity status did. For all of the sub-construct, disadvantaged ethnicity status showed significant differences. Disadvantaged ethnicity teachers seemed to be more likely to have joined the teaching profession looking for career advancement and to be agents of social change than non-disadvantaged ethnicity teachers did. Non-disadvantaged ethnicity teachers seemed to be more likely to have joined the teaching profession because of

their love for teaching and desires of a balanced work and personal life than disadvantaged ethnicity teachers did.

Another interesting finding is that teacher licensure did not seem to matter on any outcome besides the demographic and teacher background comparison. In other words, attaining a teaching license did not seem to drive any other factors besides being a traditional public school teacher. There were no differences between licensed teachers and non-licensed teachers in motivations to become teachers, attitudes towards teaching and schools, and perceptions of personal agency within the school building.

Limitations

The outcomes of this study were based completely on self-reported survey data from a limited sample of teachers in Pulaski County, Arkansas. Compounded by a modest response rate of 26%, this configuration of inputs resulted in the study having limited external reliability. In other words, if this same study was conducted with a larger sample in the same region, the results could possibly be different. Additionally, since the charter movement varies greatly state by state, if this same study was replicated with a national sample, those results could also vary. In other words, Arkansas could be an outlier.

Another limitation of the study is that the survey data collected only represents a snapshot in time. Since the study examines teacher attitudes and opinions, the study is not able to determine if those attitudes and opinions change over time. For example, the survey was administered at the beginning of a semester, when teachers would likely be optimistic about their work. However, if the survey would have been re-administered at the end of the semester, teacher attitudes and opinions could have been different.

Since the constructs did not go through a validation process prior to being used in this survey, some of the reliability scores were weak. This condition affected the internal reliability of the study. The power of most of the regression models was weak, as shown by the low adjusted R squared values. If the study were to be replicated, it definitely should be done after using a validation process to strengthen the power of the survey tool's constructs.

Future Analyses

Since the inceptions of charter schools, there have been several studies comparing the educational backgrounds and demographics of charter school teachers and traditional public school teachers. However, there are far fewer studies of the differences in the two groups' motivations to teach and perceptions on various aspects of teaching. Increasing the number of these types of evaluations across the country could provide beneficial information on human capital in the teacher labor market. If significant differences exist between the two sectors, and one produces higher rates of student achievement, then seeking out a particular type of teacher could prove beneficial for the entire educational landscape. In addition, results from future studies could also inform teacher preparation programs and perhaps focus on recruiting potential teachers for high-needs subjects and locations.

For analyses specific to teachers in Arkansas, it would be interesting to see a stronger version of the survey used in this study administered in the other areas of the state. For example, it would be interesting to see if there would be a variation of differences found between the two types of teachers in the Arkansas Delta, where "no excuses" charter schools exist. Studies on the differences between charter school teachers and traditional public school teachers in this area may be more consistent with previous research, and show that charter school teachers are more

likely to be male, disadvantaged ethnicity, and have attended more selective colleges than their counterparts. This could be the case, since the "no excuses" charter schools often have a mission related to social justice (Maranto and Ritter, 2014).

Additionally, it would be interesting to compare the differences in charter teachers within the different areas of the state. This type of analyses would provide details that could inform recruitment efforts as the state of Arkansas works to increase student achievement across the state and close any achievement gaps that exists. Again, if significant differences exist between the two sectors, and one produces higher rates of student achievement, then seeking out a particular type of teacher could prove beneficial for the state's educational landscape.

References

Arkansas Statutes (1995). Title 6. Chapter 23.

Baker, B. D. & Dickerson, J. L. (2006). Charter schools, teacher labor market deregulation, and teacher quality: Evidence from the Schools and Staffing Survey. Education Policy, 20(5), 752-778. http://dx.doi.org/10.1177/0895904805284118

Betts, J. R., & Tang, Y. E. (2016). A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement. *Society for Research on Educational Effectiveness*.

Bloom, N. (2012). Firing Day at the Charter School. CoLab Radio. Retrieved on March 9, 2018, from http://colabradio.mit.edu/firing-day-at-the-charter-school/

Bomotti, S., Ginsberg, R., & Cobb, B. (1999). Teachers in charter schools and traditional schools: A comparative study. *Education Policy Analysis Archives, 7*(22), 1-22.

Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2010). Analyzing the determinants of the matching of public school teachers to jobs: Disentangling the preferences of teachers and employers. Retrieved from http://teacherpolicyresearch.org/ResearchPapers/tabid/103/Default.aspx

Budde, Ray. (1974). Education by Charter—Key to a New Model of School District. Paper presented to The Society for General Systems Research.

Burian-Fitzgerald, M., Luekens, M. T., & Strizek, G. A. (2004). Less red tape or more green teachers: Charter school autonomy and teacher qualifications. Taking account of charter schools: What's happened and what's next, 11-31.

Cannata, M. & Peñaloza, R. (2012). Who are charter school teachers? Comparing teacher characteristics, job choices, and job preferences. Education Policy Analysis Archives, 20(29). Retrieved on January 12, 2018, from http://epaa.asu.edu/ojs/article/view/1021

Cheng, A., Hitt, C., Kisida, B., & Mills, J. N. (2017). "No Excuses" Charter Schools: A Meta-Analysis of the Experimental Evidence on Student Achievement. *Journal of School Choice*, *11*(2), 209-238.Cobbs and Glass (1999).

Cordes, S. A. (2017). In pursuit of the common good: The spillover effects of charter schools on public school students in New York City. *Education Finance and Policy*, (Just Accepted), 1-49.

Crawford, J. R. (2001). Teacher autonomy and accountability in charter schools. Education and Urban Society, 33(2), 186-200.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education policy analysis archives*, *8*, 1.

Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review*, *45*, 44-52. Forman (2007).

Fabricant, M., & Fine, M. (2015). *Charter schools and the corporate makeover of public education: What's at stake?*. Teachers College Press.

Forman Jr, J. (2007). Do Charter Schools Threaten Public Education-Emerging Evidence from Fifteen Years of a Quasi-Market for Schooling. *U. Ill. L. Rev.*, 839.

Gawlik, M. A. (2007). Beyond the charter schoolhouse door: Teacher-perceived autonomy. Education and Urban Society, 39(4), 524–553.

Gershenson, S., Hart, C., Lindsay, C., & Papageorge, N. W. (2017). The long-run impacts of same-race teachers. Institute for the Study of Labor Discussion Paper No. 10630.

Goff, P. T., Mavrogordato, M., & Goldring, E. (2012). Instructional leadership in charter schools: Is there an organizational effect or are leadership practices the result of faculty characteristics and preferences? Leadership and Policy in Schools, 11(1), 1–25. doi:10.1080/15700763.2011.611923

Goldhaber, D., & Anthony, E. (2003). Teacher Quality and Student Achievement. Urban Diversity Series.

Greene, J. P. (2005). *Education myths: What special interest groups want you to believe about our schools--and why it isn't so*. Rowman & Littlefield Publishers.

Guarino, C. M. (2003). Staffing in charter and conventional public schools. In R. Zimmer, R. Buddin, D. Chau, G. Daley, B. P. Gill, C. Gaurino, L. Hamilton, et al. (Eds.), *Charter school operations and performance: Evidence from California*. Santa Monica: RAND.

Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of public economics*, *95*(7-8), 798-812.

Malloy, C. L. & Wohlstetter, P. (2003). Working conditions in charter schools: What is the appeal for teachers? Education and Urban Society, 35(2), 219-241. http://dx.doi.org/10.1177/0013124502239393

Maranto, R. and G. Ritter. (2014). "Why KIPP Is Not Corporate: KIPP and Social Justice," Journal of School Choice. 8: 2 (April-June), 237-57.

McKinney, M. (1998). Preservice teachers' electronic portfolios: Integrating technology, self-assessment, and reflection. *Teacher Education Quarterly*, 85-103.

Minnesota Statutes (1991). Chapter 265. Article 9. Section 3.

Mintrop, R., & Ordenes, M. (2017). Teacher work motivation in the era of extrinsic incentives: Performance goals and pro-social commitments in the service of equity. E*ducation policy analysis archives*, *25*, 44.

National Association of Charter School Authorizers. (2016). The state of charter school authorizing: 2016.

National Center for Education Statistics (2003). Overview and Inventory of State Education Reforms: 1990 to 2000. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Ni, Y. (2012). Teacher working conditions in charter schools and traditional public schools: A comparative study. Teacher College Record, 114(03), 1-21.

Nielsen, L., & Wolf, P. (2001). Representative Bureaucracy and Harder Questions: A Response to Meier, Wrinkle, and Polinard. The Journal of Politics, 63(2), 598-615. Retrieved from http://www.jstor.org/stable/2647696

Podgursky, M. (2007). Teams versus bureaucracies: Personnel policy, wage-setting, and teacher quality in traditional public, charter, and private schools. In M. Berends, M. G. Springer, & H. J. Walberg (Eds.), Charter school outcomes (pp. 61–79). New York, NY: Lawrence Erlbaum Associates.

Podgursky, M. and Ballou, D. (2001). Personnel policy in charter schools. Washington, D.C.: Thomas B. Fordham Foundation.

Redford, W. A. (2014). *In search of change: Exploring the motivations of California teachers who move from traditional public schools* (Doctoral dissertation, Fielding Graduate University).

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. Rothstein (2010).

Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in higher education*, *44*(4), 409-432.

Smith, J., & Wohlstetter, P. (2009). Parent Involvement in Urban Charter Schools: A New Paradigm or the Status Quo?. *National Center on School Choice, Vanderbilt University (NJ1)*. Wei, Patel, and Young (2014).

Weiss, E. M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention: A secondary analysis. Teaching and Teacher Education, 15, 861–879.

Wohlstetter (Eds.), Taking Account of Charter Schools: What's Happened and What's Next (pp.11-31). New York: Teachers College Press.

Wolf, P. J., & Lasserre-Cortez, S. (2018). Special Education Enrollment and Classification in Louisiana Charter Schools and Traditional Schools. REL 2018-288. *Regional Educational Laboratory Southwest*.

Zimmer, R., & Buddin, R. (2007). Getting inside the black box: Examining how the operation of charter schools affect performance. Peabody Journal of Education. 82(2-3), 231–273.

Appendix

Table 24

Undergraduate Institution Descriptives, by Sector

	Traditional		Charter	
Undergraduate Institution Category	N	%	N	%
Selective				
In-State Public	179	68	38	73
In-State Private	21	8	9	17
Out-of-State Public	33	13	4	8
Out-of-State Private	30	11	1	2
Sub-Total	263	35	52	36
Non-Selective				
In-State Public	358	74	67	74
In-State Private	41	8	12	13
Out-of-State Public	65	13	12	13
Out-of-State Private	22	5	0	0
Sub-Total	486	65	91	64
Total N	749		143	

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

April 22, 2016

MEMORANDUM

TO:	Alexandra Boyd Gary Ritter
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol #:	16-03-590
Protocol Title:	*Where are the Teacher Shortages in Arkansas? A Descriptive Analysis of the Teacher Labor Market in a Southern State*
Review Type:	☐ EXEMPT ☒ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 04/18/2016 Expiration Date: 04/17/2017

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 150,000 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

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UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

January 12, 2018

MEMORANDUM

TO:	Alexandra Boyd Gary Ritter
FROM:	Ro Windwalker IRB Coordinator
RE:	EXEMPT PROJECT CONTINUATION
IRB Protocol #:	16-03-590
Protocol Title:	*Where are the Teacher Shortages in Arkansas? A Descriptive Analysis of the Teacher Labor Market in a Southern State*
Review Type:	☒ EXEMPT
New Approval Date:	01/12/2018

Your request to extend the referenced protocol has been approved by the IRB. We will no longer be requiring continuing reviews for exempt protocols.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.