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An Investigation of a Teacher Education Program and the Hiring of Newly Certified Teachers in At-Risk and Non-At-Risk Schools

William Lancaster

An Investigation of a Teacher Education Program and the Hiring of Newly Certified Teachers in At-Risk and Non-At-Risk Schools

by

William Lancaster

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In partial fulfillment of the requirements for the

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Abstract

Research has shown teachers are the most important factor when determining student success, even with the field of education in a constant state of uncertainty. Schools all over the nation are struggling to acquire quality teachers into their buildings, and teacher preparation programs are having a difficult time producing enough teacher candidates. This study investigated what initial jobs students choose to take in their first year after completing an educational degree from one study university's teacher preparation program, through numerous secondary data points and a participant survey. The quantitative data suggests that recent graduates are just as likely to go to an at-risk or failing school as they are to go to a non-at-risk school, which did not necessarily align with qualitative results. The qualitative data conveyed that decisions on employment were made using a myriad of factors, and there were no data suggesting that one specific idea or factor was more important than another. Recommendations include more collaboration between teacher preparation programs and school districts, as well as varied and increased student teaching experiences for teacher candidates.

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Chapter One: Introduction

Introduction

Preparing high-quality teacher candidates has become a concern, especially in the United States. There is a myriad of opinions about how teacher quality could or should be defined, and educational policy makers are engulfed in discussions regarding what teachers should know, and what they should be able to do, to perform their jobs effectively. During this heightened scrutiny on teachers and the quality of work that they produce, there is a noticeable omission of emphasis when it comes to educator preparation programs. Essentially, there is no system in place that is evaluating programs that train our educators to discover if they are actually worth the time, effort, cost, or if the programs produce quality teaching candidates, and those who graduate are able to get jobs in local school districts (Goodwin & Kosnik, 2013).

After quality teachers are hired, retaining them is just as important to the educational process. Teacher retention in schools, especially at-risk schools, has been extremely problematic throughout the last few decades, and is still a major concern for many districts around the country (Branch et al., 2013; Winters & Cowen, 2013). Research shows that turnover in the educational world is higher for those who begin their career with sub-optimal preparation. One reason for substandard preparation may be that potential educators are often able to choose alternative certification pathways not typically allowed for other career fields, which may allow for a teacher candidate to skip some coursework or even student teaching (Espinoza et al., 2018).

Numerous policies at the federal and state level regarding teacher turnover have been enacted largely because of the proven difficulties that every new teacher

experiences during their first few years in the field of education. There are roughly 40 states that established some form of service scholarship or loan forgiveness program to assist in the recruitment and retention of high-quality teachers. These types of programs typically underwrite the educational costs associated with teacher preparation, and in turn, they ask for several years of service as a teacher, often in at-risk school districts. Research has shown that these programs are often able to leverage better recruitment into the field of education and supply more individuals to locations where they are needed, while supporting the retention of those educators (Espinoza et al., 2018). Congress also introduced the Addressing Teacher Shortages Act of 2019, which if passed, would give individual states grant money to establish teacher residency programs in their state, establish or expand teacher mentoring programs, Grow Your Own programs, and other programs that increase teacher retention in their state (Addressing Teacher Shortages Act, 2019).

There are also programs such as Teach for America, which was founded in 1989 in New York City. Teach For America focuses on recruiting recent college graduates that excelled in their studies, using alternative paths to teacher certification rather than the traditional teacher preparation programs, and placed their members in at-risk schools across the United States, for a minimum of two years (Heineke et al., 2014). While programs like this help fill jobs in at-risk districts, there are mixed reviews on its effectiveness. Further, retention is a problem within this program, like it is in many urban, rural, and at-risk districts (Heilig & Jez, 2010).

Background

Since the 1990s, there has been an increased interest at the federal level in holding colleges and universities and the teacher preparation programs developed by these schools accountable for how the students who graduate from these teacher preparation programs perform in the classroom. Just like many other professions, competence in teaching is significantly shaped by the numerous experiences that come with working daily in an educational environment, professional development, and by continuous learning. Teacher preparation programs that adequately prepare their students for their future work in classrooms all over the country can be extremely important towards the contribution of the quality of instruction and should be recognized as such. However, because there are a wide variety of program requirements, testable content, and a difference in minimal passing scores, it becomes particularly difficult to compare results, especially from state to state. These passing results also have very little correlation towards predicting the future effectiveness of these educators, because of the varying degrees of preparedness (Feuer et al., 2013).

For far too many years, typical teacher preparation programs have often been criticized for a fragmented learning plan, a lack of cohesion between courses and a student's field experience, less than stellar pedagogy, and no clear organizing themes, goals, or shared standards (Hollins, 2011). Federal, state, and local leaders are all interested in how they can gather information, analyze the data, and then evaluate teacher preparation programs in their locale, in order to hold them accountable for producing high-quality, effective educators. Being armed with quantifiable data will give these stakeholders, education policy makers, potential teacher candidates, and the general

public relevant information to make informed decisions about the effectiveness of the program in question. This information can also give potential hiring managers a basic notion of the type of candidate that they have based on their school or preparation program, and it gives the schools and preparation programs information that they can use to improve the quality of the instruction, which will continue to provide quality candidates for local schools (Feuer et al., 2013).

At one point in history, obtaining a college degree was significant for a person on many different levels. The general perception was that having some postsecondary education, even without earning that coveted degree, would add nearly one-quarter of a million dollars to a single person's lifetime earnings (Carnevale et al., 2013, p. 4), which typically led to financial freedom and prosperity. In the last 30 years there was a shift in the American mentality and an emphasis was placed on requiring degrees, often for entry level work. A study conducted in 1999 by the Georgetown University Center on Education and the Workforce concluded that in over the course of a career, a person that holds a bachelor's degree had lifetime earnings that were 75% higher than those of a person who only completed high school, and a follow up study concluded that by 2009, the premium grew to 84% (Carnevale, et al., 2013, p. 1). Avery and Turner (2012) estimated, "by age 64 the college graduate would have compiled a total of approximately $1.2 million in earnings net of tuition at age 64 as opposed to approximately $780,000 in total earnings for the high school graduate" (p. 173).

Even with the shift towards everyone needing a degree, it is evident that not all colleges or college programs are equal. Research from the Georgetown University Center on Education and the Workforce showed that those who graduated from college generally

earn more over a lifetime than those who have only their high school diploma; the earnings vary drastically across occupations. Median career earnings for those who hold bachelors' degrees are found to be highest in Science Technology Engineering and Mathematics (STEM), health professional, and occupation sectors that require managerial experience. The career earnings tend to be lowest in jobs such as health support, education, and personal services sectors (Carnevale et al., 2013). Also, when it comes to the field of education, those students often accrue much more student debt, while working for the same salaries as those who did not graduate from those schools and students who graduate from elite private schools tend to make more money long-term when compared with graduates from state colleges and universities (Vedder et al., 2013). Furthermore, there is a recognizable difference in earnings between those who go on to finish college and those who do not, and the gap is continuing to grow, meaning that in our current climate, postsecondary education is now more important than ever before (Carnevale et al., 2013; Vedder et al., 2013).

With the increase in the total amount of college graduates, there has become an influx of overeducated workers in occupations, especially those in entry level positions in lower-end industries. According to Vedder et al. (2013), "about five million college graduates are in jobs the Bureau of Labor Statistics says require less than a high-school education" (p. 1). As schools continue to churn out college graduates, the earnings advantage typically associated with a bachelor's degree will eventually change over time. This will put a premium on the actual education that students can get from a particular school, and colleges and universities will be forced to ensure that their programs are of

the highest quality, so that their graduates are obtaining the jobs they have paid for, through their tuition, time, and effort (Vedder et al., 2013).

Purpose of the Dissertation

The purpose of this study was to investigate careers students choose to take in their first year after completing an educational degree from one study university's teacher preparation program. To begin the study, data from the Missouri Department of Elementary and Secondary Education (DESE) was used to examine how many students from this particular teacher preparation program were hired after completion of the program, and also used to determine whether or not recent graduates were hired to work in "at-risk schools," which is important when assessing the program over a two-year period in an effort to find any correlating information between the teacher preparation program, the recent graduates, and where they began their employment. Surveys were sent out to pre-service educators enrolled in the Student Teaching Experience to gauge how and why they were choosing their first-year position in education.

The goals of any teacher preparation program should be to provide prospective teachers with the skills and knowledge needed to pursue a teaching career and remain successfully employed as a teacher, doing so should, in theory, produce teachers who meet the needs of the schools where they teach and the needs of their students. Therefore, the rate at which a program's graduates become and remain employed as teachers is a critical indicator of program quality (Higher Education Opportunity Act, 2014).

Rationale

Hundreds of thousands of candidates graduate each year from teacher preparation programs, having spent significant amounts of money on tuition, and numerous hours in

classrooms, just to qualify for an initial teaching certification. Recent research suggested that graduates of some education programs can be considered more effective than graduates of other programs, suggesting that the preparation program that a person chooses can make a difference. However, the research does not definitively conclude what type of teacher preparation is most effective, or how much teacher preparation is needed. There is a strong sentiment amongst many public educators that the current teacher preparation programs are not delivering brand new teachers with the skills that they need to be successful (Greenberg et al., 2013).

Teachers in the United States are continuously falling under an immeasurable amount of job scrutiny, while attempting to address the ever-changing needs of their students, who are becoming increasingly more diverse in many aspects, and separated based on their socioeconomic status. With that in mind, all students deserve access to a high-quality education with well-prepared teachers, who can assist them in preparing for their futures. Research indicated that a well prepared, highly qualified, extremely motivated and knowledgeable teacher is better equipped to facilitate positive gains in student learning, when compared with teachers who have not been properly academically prepared (Borman et al., 2009).

The best teachers are those who have mastered not only the core content of what they intend to teach, but also the subject matter taken through coursework in Colleges of Education, so they can develop the skills that are necessary to effectively teach their students. An effective teacher must be able to apply theoretical concepts to their classroom in order to effectively engage their students in the learning process (Borman et al., 2009).

Since the entire school system in the United States is in desperate need of dedicated and skilled teachers, who are willing to work in and commit to at-risk schools long enough to make a lasting difference in school quality and student performance, training and retention of the candidates is paramount. While there is little to argue about when it comes to this need, there are many differing opinions about how best to train, recruit, and most importantly, retain those highly skilled teachers so that they can effectively serve our nation's most underserved children (Freedman & Appleman, 2009).

Schools all over the country are facing one similar issue, and that is, beginning teachers are leaving schools at an astronomical rate. Roughly one-third of new teachers leave the school that hires them in the first three years, and almost one-half after five years. These high attrition rates result in a constant cycle of inexperienced teachers and higher economic costs to school districts, as teachers must be continuously hired and then trained, and an overall lack of continuity, which makes institutional development and planning extremely difficult (Brill & McCartney, 2008).

Research Questions and Hypotheses

The researcher investigated the following research questions:

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

The hypotheses for this mixed methods study are as follows:

Hypothesis 1: There is a difference between the percentage of recent graduates hired to work in non-at-risk schools compared to the percentage of hired to work in at-risk and failing schools.

Hypothesis 2: There is a difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary, Middle, or Secondary schools.

Hypothesis 3: Subject matter graduates in science are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 4: Subject matter graduates in math are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 5: Subject matter graduates in English are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 6: Subject matter graduates in social studies are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 7: Subject matter graduates in FACS/business/tech are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 8: Subject matter graduates in music/arts are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 9: Subject matter graduates in PE/Health are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 10: Subject matter graduates in Special Education are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 11: Graduates taking non-certified positions are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 12: Graduates certified in elementary are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 13: Graduates certified in middle school are more likely to work in a non-at-risk school compared to an at-risk school.

Limitations

The data researched was from a one-year window, from one university, in one state, and it only encompassed those who graduated from the School of Education and who found employment in public schools in one state. Graduates who were hired to work in private schools or out of state were not included in this data set.

Definition of Terms

At Risk School: A school that, based on the most recent data available, is in the highest quartile of schools in a ranking of all schools served by a local educational agency, ranked in descending order by percentage of students from low-income families enrolled in such schools, as determined by the local educational agency, based on one of the standard measures of poverty (Higher Education Opportunity Act, 2014).

Grow Your Own Program: A program that works to recruit graduates of local schools and members of the school's community into the teaching profession of a school (Addressing Teacher Shortages Act of 2019, 2019).

Non-At-Risk School: A school that, based on the most recent data available, that does not fall in the highest quartile of schools in a ranking of all schools served by a local educational agency, ranked in descending order by percentage of students from low-

income families enrolled in such schools, as determined by the local educational agency based on one of the standard measures of poverty (Higher Education Opportunity Act, 2014).

Novice Teacher: A teacher of record in the first three years of teaching who teaches elementary or secondary public-school students, which may include, at a State's discretion, preschool students (Higher Education Opportunity Act, 2014).

Recent Graduate: An individual whom a teacher preparation program has documented as having met all the requirements of the program in any of the three title II reporting years preceding the current reporting year (Higher Education Opportunity Act, 2014).

Teacher Placement Rate: The percentage of recent graduates who have become novice teachers (regardless of retention) for the grade level, span, and subject area in which they were prepared (Higher Education Opportunity Act, 2014).

Teacher Preparation Program: A program, whether traditional or alternative route, offered by a teacher preparation entity that leads to initial State teacher certification or licensure in a specific field (Higher Education Opportunity Act, 2014).

Conclusion

Teacher preparation programs are putting graduates into classrooms all over the country, but there really is no oversight to determine if these programs are producing high-quality teachers. Even if teacher prep programs are putting out quality candidates, there is no guarantee that these potential teachers are being hired and retained, which is also problematic. This study will investigate careers students choose to take in their first year after completing an educational degree from one study university's teacher

preparation program. This mixed-methods study also investigated if students completing an educational degree path are choosing to take jobs they are over-qualified for, in order to avoid certain positions in at-risk schools or districts. Lastly, this study will look to identify how first-year teachers chose their jobs, and what perceptions helped them make that decision. This researcher also examined the different perceived factors that could play a role in how those teachers chose that first job, such as the location of the school, the potential to be hired, their alumnus or student teaching status, starting salary, and the perceived achievement level of the schools.

Chapter Two: Review of Literature

Teacher Shortages

Numerous articles since the 1990s discussed the evident teacher shortage that exists in the United States, and many proposed solutions that, in theory, could address the problem. Sutcher et al. (2019) stated, “Although teacher shortages are currently in the public eye, staffing difficulties are not new” (p. 3). Much of the fear that arises is based directly on the general condition of the labor market for future educators. Research and synthesis of recent data suggested there are potential problems with the recruitment of highly qualified teachers and the retention of those educators. According to data from a 2019 report, produced by the National Student Clearinghouse (p. 1), students who graduated high school were becoming increasingly disinterested in pursuing college degrees and college enrollment decreased by 1.3% since 2018, and has fallen consistently since 2010. This decline follows a trend over the past decade, where during that time frame, enrollment in college teacher preparation programs declined by more than 250,000 students annually. Sutcher et al. (2019) insisted that staffing problems across the nation were driven by multiple factors, including a higher rate of teacher turnover, changes in educational programs and teacher-to-student ratios, and the general attractiveness of teaching, and not just the production of new teachers (Aragon, 2016; National Student Clearinghouse, 2019; Sutcher et al., 2019).

However, numerous research organizations, such as the Education Policy Center, the Education Commission of the States, and the Hamilton Project all seemed to concur that from a national standpoint, there is no teacher shortage, as many around the country claim. Instead, these research organizations suggest that teacher shortages are a regional

issue that varies from state to state, city to city, and district to district. According to the National Center for Analysis of Longitudinal Data in Education Research (CALDER), there are two long term trends about teacher production that stand out. Specifically, the production of teachers has grown steadily since 1985 and current expectations project continued growth. Also, like many other industries, teacher production is cyclical and generally responsive to the current state of the economy. The data also suggested that even though colleges and universities are producing numerous teacher candidates on a yearly basis, only one half of those students end up employed in a public school after receiving their credentials (Cowan et al., 2016).

Three main ideas about teacher shortages are supported by research. First, any shortages within states are typically only impacted by the unique education policies that govern that particular state and are not traditionally affected by federal policies. Differing licensure requirements and the ability to transfer licensing credentials between states can also affect a state's ability to potentially attract or retain teachers. Even though national numbers may show a plethora of new teacher candidates, many individual states continue to struggle to align their workforce needs with their supply of potential teacher candidates, and as a result, those states face real teacher shortage crises. Second, teacher shortages are often limited to high-need subject areas, such as special education, science, and math. Since the late 1990s and early 2000s the challenges with teacher staffing in math and special education have decreased over time even though they remain, and since 2003-2004 the challenges with teacher staffing in science have failed to improve. In many states, colleges and universities are overproducing teacher candidates with a certification in low-demand subjects and under-producing candidates with certifications

in high-demand subjects, such as math and science, which are typically under-staffed. Lastly, actual teacher shortages are often found in schools that have specific characteristics. Schools with staffing issues usually fulfill one or more of these indicators, such as urban or rural, high-poverty, high-minority or low-achieving, and often, these schools check a majority of those boxes. (Aragon, 2016; Malkus et al., 2015).

Policy

Empirical research stated the largest contributing factor to student achievement in schools is teacher quality, but obvious metrics that measure teachers, such as education level or certification status, have a poor track record as proof of teacher quality (Goldhaber, 2015). According to Cochran-Smith and Villegas (2015), "Teacher quality is among the most important factors in students' achievement, but schools with large numbers of poor and minority students are the most likely to have teachers who are not well-qualified" (p. 14). Goldhaber (2015) agreed by stating "the evidence is pretty clear that investments in teacher quality are far more cost effective than investments in more teachers" (p. 15). If teacher quality is paramount to all other things that affect student achievement, then training educators at higher levels must be the simplest solution to the issues that our nation is facing (Cochran-Smith & Villegas, 2015; Goldhaber, 2015).

The federal government became interested in teacher education and teacher quality in the 1980s to 1990s, but this interest was typically limited to financial support for professional development which targeted specific areas of need, or in response to areas that were deemed of national importance or as a part of a perceived national crisis (Cohen-Vogel, 2005; Earley, 2000; Lewis, & Young, 2013). More purposeful federal attention to teacher quality and training followed the Reagan administration's release of *A*

Nation at Risk: The Imperative for Educational Reform, which highlighted an era where teacher quality and teacher education began making regular appearances in the policy agendas of both political parties (Cohen-Vogel, 2005; Earley, 2000; Lewis & Young, 2013).

Traditionally speaking, educational policy in the United States has increasingly grown while maintaining a mutually beneficial relationship with key educational shifts, over the course of history. One influential piece in that history of the American education system is not a law, or policy, but the findings of a commission enacted by the U.S. government, entitled *A Nation at Risk* (1983). *A Nation at Risk*, and other education reform documents that were circulated during the late 1980s, opened the conversation for reform and the federal government responded with varying policies in the following decades, mainly because it highlighted numerous issues within the educational system in the United States. The report from 1983, was issued by the National Commission on Excellence in Education, whose members were appointed by Terrel Bell, the Education Secretary at the time. After an 18-month study and analysis of data primarily related to secondary education, the results were considered disastrous. The *Nation At Risk* report stated that “23 million American adults are functionally illiterate by the simplest test of everyday reading, writing, and comprehension. About 13 percent of all 17-year-olds in the United States can be considered functionally illiterate" (1983, p. 8). The report also concluded, "Compared to other nations, American students spend much less time on school work" (p. 21). Many of the reforms that were brought about because of this study are still in effect in today’s educational system (Gardner et al., 1983, Wernle, 2017).

The Department of Education, which was firmly on President Ronald Reagan's chopping block, became instantly relevant and practically indispensable overnight. The entire educational system, from top to bottom, including politicians around the country, were immediately asked to handle the worrying conclusions from *A Nation at Risk*. The publication, which did not provide or cite any substantial pieces of research or data, presented a massive problem with limited solutions, leaving more than enough room for the answers from stakeholders in education, such as politicians, school administrators, educators, vested businesses in local communities, and the public at large. America's faith in the public school system, and the educators working within these school districts, was deeply shaken. Federal educational policy following *A Nation at Risk* attempted to deal with the alleged educational crisis in the United States, with rising calls for reform, standardization, and a politically motivated move towards privatization. During those years, leaders in the field of education, including those in charge of national associations of colleges and universities that provided teacher education began to agree upon the adoption of systemic, multi-layered education reform that included national standards. As world-class, uniform, nationalized standards increased, so did the pressure applied to students, teachers, and the colleges and universities that educate these teachers. That amount of pressure helped lead to the eventual reauthorization of the Higher Education Opportunity Act (HEA), which raised accountability measures for all teacher education programs significantly (Lewis & Young, 2013; Wernle, 2017).

The Higher Education Opportunity Act of 2014 gave specifics for states and the colleges and universities that educate and certify teachers:

> Section 205 of the Higher Education Act requires States and institutions of higher education (IHEs) annually to report on various characteristics of their teacher preparation programs, including an assessment of program performance. These reporting requirements exist in part to ensure that members of the public, prospective teachers and employers (districts and schools), and the States, IHEs, and programs themselves have accurate information on the quality of these teacher preparation programs. These requirements also provide an impetus to States and IHEs to make improvements where they are needed. Thousands of novice teachers enter the profession every year and their students deserve to have well-prepared teachers. (p. 71)

The renewal of the HEA and the subsequent revision to the teacher education provision hoped to address issues previously raised by prior research and questions from Congress, educational organizations, and the Department of Education in the United States. While the details of each proposal that focused on improving teacher education varied, there were two points in which they all agreed: The recruitment process for teachers should be addressed, and teacher education programs should be partnered with K-12 school districts in their communities. The added teacher education provisions of the HEA that resulted proved to be quite controversial, especially the new Title II portion, which addressed teacher education. This section was divided into two subsections, one that addressed categorical programs for partnerships and states, and one that instituted mandatory accountability requirements for colleges and universities, and the states where they are located (Earley, 2000; Lewis & Young, 2013). The addition of Title II to the HEA also authorized the gathering of data on teacher education programs to raise the

level of accountability for the quality of teachers entering the field of education. This new section also forced all colleges and universities with teacher education programs that received federal funds in any way through the HEA to provide the Department of Education with specific data on preparation standards and state licensure procedures (Earley, 2000; Lewis & Young, 2013).

Educational policymakers at the state and national level actively looked to close the achievement gaps that exist between advantaged and disadvantaged students, using multiple angles and approaches. While there are many factors that contributed to those measurable gaps in student performance, such as the students themselves, their family background, neighborhood, the location and governance structure of the schools that they attended, and the support systems that may or may not have been currently in place, these same policymakers shifted their focus onto issues of teacher quality, teacher preparation, and teacher retention, especially in at-risk schools (Goldhaber et al., 2015). Also, many states lowered or removed standard academic thresholds that colleges and universities usually require for teacher preparation programs, such as a 3.0 grade point average, in an effort to add more future educators to the candidate pool (Putman & Walsh, 2021).

The federal government, through a program called Title I, sent billions of dollars every year to school districts in an effort to ensure that the students in their schools that hailed from low-income families got the extra services and supports that they needed. According to Peske and Haycock (2006), the way that Title I was written presumed that there were “equal educational opportunities for all students before federal funds are applied, and that the federal money provides “extras” for students growing up in poverty” (p. 10). However, because teachers are placed in schools in a way that goes against this

thinking, this makes the presumption wholly untrue. The schools that garner the most federal Title I money because they have the most low-income children, also get the bottom of the barrel in terms of teacher talent. High-poverty, low-income, at-risk schools are more likely to have inexperienced teachers or under-qualified teachers in their classrooms, when compared with more affluent schools. Also, these teachers are typically paid less than veteran and fully credentialed teachers, who are attracted to, and typically work in more affluent schools. Without some sort of shift in policy, the lowest schools will continue to struggle **(**Peske & Haycock, 2006).

In 1994, the U.S. Congress enacted the Improving America's Schools Act (IASA), the first education reform the United States had seen since the passing of the Elementary and Secondary Act (ESEA) in the 1960s. Not only did the IASA reauthorize the ESEA, this new federal policy was the first to take major steps toward requiring accountably for student learning to be placed at the state level. The IASA forced states to increase standards and helped states with identifying schools that were failing their students. The No Child Left Behind Act (NCLB) in 2002, expanded the previous two educational reform acts by strengthening states' accountability requirements and, for the first time, requiring local schools to monitor and report on the learning outcomes of students that have disabilities. The latest educational reform came in 2015, when Congress passed the Every Student Succeeds Act (ESSA) and it was signed into law. The ESSA strengthened state and district accountability requirements while demanding school districts provide appropriate accommodations to students learning English as a second language and students with disabilities (Schuh et al., 2018).

In February of 2018, the House Committee on Education and Workforce approved H.R. 4508, which made multiple amendments to the previously established Higher Education Act, including all of the provisions that forced states to report on their teacher preparation programs progress (Kuenzi, 2018). As states across the country begin to introduce new standards for student learning, greater attention has been paid to the role that teacher quality plays in student achievement. In the last few years, numerous states enacted legislation that attempts to improve teacher recruitment, education and training, certification, or professional development. Some evidence suggested that highly qualified teachers might make a difference for student achievement at the classroom, school, and district levels, there has been little research that delved into the effects on achievement that may be associated with state or federal-level policies and institutional practices that would affect the overall level of teachers' knowledge and practical skills (Darling-Hammond, 2000b; Schuh et al., 2018).

The goals of any teacher preparation program would be to provide prospective teachers with the skills and knowledge needed to pursue a teaching career and remain successfully employed as teachers, doing so should, in theory, produce teachers who meet the needs of the schools where they teach and the needs of their students. Therefore, the rate at which a program’s graduates become and remain employed as teachers is a critical indicator of program quality (HEA, 2014).

Teacher Preparation Programs

Education policymakers in each state have arguably the largest amount of leverage over teacher quality, when compared to the federal government. These policymakers are responsible for setting minimum standards for teacher preparation

programs, the process for teacher licensure and recertification, and each state education department determines who is eligible to enter and remain in the field of education (Sass, 2015). Goldhaber et al. (2013), noted “While there has been a marked increase over the last decade in the number of teachers entering the profession through alternative routes, most teachers train at traditional state approved colleges and universities” (p. 1). Teacher preparation programs in every state are primarily regulated through evaluation and accreditation, but many in education around the nation deemed these ineffective, simply because too many weak programs have been allowed to gain accreditation. The apparent lack of quality control throughout the college and university evaluation and accreditation system paints a disheartening scene when determining the prospects for improving the teachers entering the workforce (Goldhaber et al., 2013; Sass, 2015).

Hundreds of thousands of prospective teacher candidates graduate each year from teacher preparation programs, having spent significant amounts of money on tuition, and thousands of hours learning and participating in classroom life, to obtain an idea of what teaching entails, and their initial teaching certification. One of the most important portions of teacher preparation involves discovering these often-implicit beliefs and allowing prospective educators to delve into them critically and, if needed, modify or replace them with more consistent views. Research has also suggested that graduates of some education programs can be considered to be more effective than graduated of other programs, implying that the preparation program that a person chooses to acquire their credentials through can make a difference. However, this research does not definitively indicate what type of teacher preparation program would be considered most effective, or how much teacher preparation is required. There is a strong sentiment amongst many

public educators that the current teacher preparation programs are not delivering brand new teachers with the skills that they need to be successful, and more can be done inside of these teacher preparation programs (Greenberg et al., 2013; Tamir, 2020).

Many states designed alternative pathways to an education certificate for those who did not attend more traditional, accredited, college or university-based teacher preparation programs, so that they may enter the profession. These different alternative entry programs started in the 1980s, to minimalize the use of teachers with an emergency certification (Henry et al., 2014). Over time, states used the various entry programs to lure professionals from more diverse fields that typically required a deep knowledge of a particular subject matter, into the classroom. These efforts helped diversify the teaching workforce, increase the competition between traditional teacher preparation programs and alternative certification programs, and potentially, improve student achievement in the classroom (Henry et al., 2014). However, because alternative licensing programs traditionally cost less for individuals, the burden of debt for the new educators' training and support falls disproportionately on other constituencies, such as federal, state, and local governments, and especially on the school district where the teacher is employed (Anderson, 2019).

While there are varying degrees of diversity in alternative teacher preparation programs, most states moved away from allowing teacher candidates with limited qualifications into non-traditional programs that provided a multitude of options for them to receive preparation and certification (Henry et al., 2014; National Research Council, 2010). By the end of the 1990s, a majority of alternative teacher preparation programs across the country were designed to certify individuals who previously earned a

bachelor's degree in any other field and required educational coursework and experience in the classroom in order to satisfy the initial requirements, with the understanding that some of the training on how to actually be a teacher comes after these individuals have accepted a job and entered the classroom (Feistritzer, 2005; Henry et al., 2014).

Evaluating Teacher Preparation Programs

Some states investigated evaluating their teacher training programs based on the performance of the students who graduate from the program. However, pre-service teacher training often gets painted with an extremely broad brush, even though there are over 2,000 traditional teacher preparation programs, and a multitude of alternative preparation programs in the United States. Federal policy direction and the absolute value of pre-service teacher training were both hotly debated topics. Most of this discussion is fueled by the comparison between educators who followed a traditional path towards certification and those who followed an alternative path. Some of the available research suggested that there is often little difference between educators who entered the profession through alternative routes, and this has led some in the industry to conclude that there is minimal value in traditional teacher training, when compared to alternative means **(**Gatlin, 2009; Goldhaber et al., 2013; Stotko et al., 2007**)**. The National Research Council (2010) claimed "The available research does not show stable, significant differences in the effectiveness of teachers who took different pathways into the field" (p. 54). Most of this research looked into the effects of alternative pathways and certification statuses or the effects that particular alternative programs have by comparing these with other pathways, or by comparing teachers with traditional backgrounds and certifications against those who have been alternatively trained and certified (Cochran-Smith &

Villegas, 2015; Goldhaber et al., 2013; National Research Council, 2010).

Proof of this has been shown in experimental and non-experimental research that dealt with Teach for America (TFA), which is probably the most well-known alternative route into the field of education. The TFA program is different from many other alternative preparation programs, because it specifically targets recent college graduates. Those who agree to participate in the TFA program commit to teaching for a minimum of two years and they are almost always assigned to schools that are in poverty-stricken areas. These studies suggested that achievement of students who are taught by TFA teachers is comparable in terms with other teachers who work in schools that also employ other TFA members **(**Decker et al., 2004; Xu et al., 2011). Also, more recent studies argued that there was no statistically significant difference in student performance or achievement on standardized tests between teachers who prepared by traditional college or university programs and alternative programs (Constantine et al., 2009; Sass, 2015).

What these studies implied was that alternative education certification pathways were just as capable of teaching kids as the traditional college or university pathway. However, there were also several peer-reviewed studies that refuted these claims. Heilig and Jez (2014) noted, "students of novice TFA teachers perform less well in reading and mathematics assessments than those of fully credentialed beginning teacher. But the differences are small, and the TFA teachers do better if compared with other less-trained and inexperienced teachers" (p. i). However, there is a caveat to this research. These studies consistently showed that, if the comparison group is teachers who are less likely to be fully certified, only then do novice TFA teachers perform equivalently in raising their students' reading and math scores. Also, more experienced TFA teachers are able to

perform equivalently in raising reading scores, and they are slightly better at raising mathematics scores, as well. Subsequently, most peer-reviewed studies completed on TFA and their effects on students indicated that the achievement is significantly lower in reading and mathematics for students who have been taught by novice TFA instructors, when compared to the scores of students who have been served by fully credentialed beginning teachers. According to Darling-Hammond et al., (2005), "we found no instance where uncertified Teach for America teachers performed as well as standard certified teachers of comparable experience levels teaching in similar settings" (p. 20). While having a TFA teacher in the classroom may show minimal gains over uncredentialled instructors, these studies proved that there truly is no replacement for a fully trained, fully credentialed teacher in the classroom (Darling-Hammond et al., 2005; Heilig & Jez, 2014).

There has been a call for the reform of teacher preparation programs in recent years, which led to an increased focus on redesigning traditional and non-traditional teacher education programs (Loewenberg Ball & Forzani, 2009). This restructuring could be considered a direct result of the failure of teacher education to link theory and the simultaneous increase in fast-track teacher credentialing programs and alternative programs run by colleges and universities, including for-profit entities (Feistritzer, 2007; Labaree, 2010). In order to support the growth and accomplishments of learners in contemporary classrooms, teacher education programs must prepare future candidates for schools that are increasingly characterized by diversity, innovative instructional techniques, globalized initiatives and goals, and other potential 21st century challenges. Because of these significant shifts in educational policies and practice, teacher education

is caught in the midst of a focus adjustment, from university-based preparation programs focused on individual teachers, with a goal of placement and retention in school districts to an in-depth preparation of teachers, so they can be committed to learning through teaching, with an increased impact on not only schools and the children in them, but their families and the communities that they serve as well (Darling-Hammond & Baratz-Snowden, 2007; Freedman & Appleman, 2009; Kennedy & Heineke, 2014).

In order to achieve the perfect mixture of university-based educational training and an opportunity to explore the required overlap of 21st century teacher capabilities, teacher education programs must provide future educators one common goal that challenges future teachers to make an impact beyond the classroom. The only way to achieve this goal is for programs to bridge the divide between teacher preparation and pre-service practice, utilizing a multitude of approaches. Teacher preparation programs must provide their students with strong, intelligible, and interdisciplinary curricula that emphasizes multi-faceted inquiry approaches to learning. These programs must also provide practice in meaningful field experiences and rigorous performance assessments of candidates, while maintaining an overall structure leveled by strong university-school partnerships (Darling-Hammond, 2012). Clinical practice sessions, commonly known as student teaching, are widely considered to be the best opportunity that aspiring teachers will have to put into practice the information that they acquired from their coursework, while inside an actual classroom, with students who are there to learn. Not only do brand new educators insist that their clinical practice was the most important piece of their teacher preparation program (Putnam & Walsh, 2021), but a high-quality clinical practice experience not only helps future educators become more effective in their upcoming

roles, these types of experiences assist local school districts with recruitment and placement of quality individuals (Krieg et al., 2016). Research shows first-year teachers who go through a student teaching experience and are mentored by above average individuals can be as effective as second-year teachers, and those who are mentored by high-quality educators can be almost as effective as typical third-year teachers (Goldhaber et al., 2019).

Teachers in the United States are continuously falling under an immeasurable amount of job scrutiny, while attempting to address the ever-changing needs of their students, who are becoming increasingly more diverse in many aspects, and separated based on their socioeconomic status. With that in mind, all students deserve access to a high-quality education with well-prepared teachers that can assist them in preparing for their futures. Research indicated that a well prepared, highly qualified, extremely motivated and knowledgeable teacher is better equipped to facilitate positive gains in student learning, when compared with teachers who have not been properly academically prepared (Borman et al., 2009; Vagi et al., 2019). Vagi et al. (2019) insisted "preparing, recruiting, and retaining high-quality teachers is a long-standing policy issue and concern for some schools and school districts" (p. 1). While there is no general consensus in the world of academia on what constitutes a quality teacher, many experts agree that the best teachers are those who have mastered not only the core content of what they intend to teach, the subject matter they received through their teacher preparation program, but they also received positive evaluations through job performance (Vagi et al. (2019).

The National Research Council (2010) suggested that somewhere between 70% and 80% of all new teachers entering into the profession every year, which is estimated to

be somewhere near 200,000 people, are prepared in what are considered to be traditional programs housed in postsecondary institutions, with the remaining 20% or so entering through one of approximately 130 different alternative routes. With individual states, local school districts, the federal government, numerous teacher education associations, and multiple independent accrediting and ratings organizations all using new evaluation tools and techniques that are often independent of each other, attention increasingly turns to the intended and unintended consequences (Feuer et al., 2013).

Many states are beginning to focus their attention on the numerous pathways that people can take to become certified to teach, and not only are the new educators under intense scrutiny, but the programs that educate them are as well. There has always been a pseudo, open-market approach used to determine entry into the field of education. Experts, such as those at the Fordham Foundation argued that teacher education programs offer little to the actual effectiveness of teachers and that preparation before entering into the field of education should be minimized, so that it lowers the opportunity costs of entry into the field itself. In 2002, the U.S. Department of Education (USDOE) concluded that teacher preparation programs had little or no demonstrated value towards the enhancement of student achievement. This conclusion about the values of teacher preparation programs applied both to traditional and alternative teacher preparation, at least according to a review of this study (Boe et al., 2007; Kanstoroom & Finn, 1999).

The traditional approach to teacher preparation is slowly changing as state and local governments adjust to research that shows that teachers who are prepared in a single, formal, continuous program of preparation leave feeling more prepared than those students who take numerous courses from different institutions. Those who enter the field

of education in a piece-meal fashion, often feel even more prepared than those who enter this career field through one of the numerous alternative programs that are available, because most of these types of programs put an emphasis on allowing prospective students to enter without any prior experience or training in the field, and many allow students to complete the program while minimizing preservice training opportunities. Putnam and Walsh (2021) stated "Of the 47 states that allow alternate route programs, only 13 have regulations that require all alternate route candidates to demonstrate the necessary content knowledge before admission into a program" (p. 24). Students who fall in this last category are typically poorly prepared for many of the day-to-day tasks of teaching and are often less than adequately prepared overall (Darling-Hammond et al., 2002; Kanstoroom & Finn, 1999; Putnam & Walsh, 2021).

Because there is some variability among the teacher education programs, and the graduates' perceptions of their own preparation, one might come to the conclusion that the only way to produce teachers that are capable of performing the duties that they are tasked with, teacher preparation programs must be expected to evaluate and improve their work. Some states lowered their requirements across the board. Some introduced performance-based portions to their teacher preparation programs. Even with the positive changes in many states, according to Putnam and Walsh (2021) "the net effect is virtually unchanged since 2015" (p. 25). In order to change the outcome, this will require states, municipalities, and even local school districts to make investments that improve teachers' abilities to access high quality preparation programs, and possibly up the incentives to teachers, so that teachers continue to invest in their own careers. Until changes like these are made, students all across the country will continue to be taught by educators who are

inadequately prepared to teach them, and who are unable to see the gains in student achievement that are necessary to justify their position (Darling-Hammond et al., 2002; Putnam & Walsh, 2021).

One issue to note about teacher preparation programs, according to Darling-Hammond et al. (2002), is that

> Teachers who felt poorly prepared were much less likely to say they would pick the same route into teaching again: Only 36% said they would choose the same program or pathway, compared to 76% of those who felt well prepared for teaching. (p. 294)

This is directly correlated to the presented information, rigor, and depth of the program that was initially offered. This research also suggested that teachers who attained their certification without attending any of the aforementioned teacher preparation pathways felt completely unprepared for their jobs, in comparison to teacher education program graduates overall. It is also believed that teacher education programs that placed a heavy emphasis on subject matter pedagogy and pre-service development, could be considered more successful than programs that did not focus on those things. Teachers who graduated from programs without these services in place, or received their certification through some other means were, as relayed by Darling-Hammond and Berry (2006) were, "five times more likely than traditional teacher education graduates to report that they were not sufficiently prepared to be effective in [their] school" (p. 4). This research shows that without an initial program that supports the teacher candidate, new, untrained, and potentially un-schooled teachers are highly likely to fail, which is failing the students

in those classrooms (Brownell et al., 2005; Darling-Hammond et al., 2002; Darling-Hammond & Berry, 2006).

The notion that new teachers must develop a clear vision of what good teaching is throughout pre-service preparation began in the early 1980s, as part of a larger movement that centered around the idea that a person's practical experience and observations or the education system were paramount. At the time, teacher education was considered inadequate, and the largest concern was that potential teachers' personal experiences with school would influence their views and practice more than their teacher preparation. In subsequent years, researchers recorded the beliefs of pre-service teachers and noted the minimal effects of pre-service teacher education in altering those beliefs. Educational reformers immediately called for more vigorous and comprehensible pre-service teacher preparation programs to counter what was apparent, and teacher preparation programs worked to replace earlier beliefs with more reliable views of teaching, subject matter, learners, and learning. For most of these programs, this meant creating closer conceptual and structural connections between educational courses and in-field training, while grounding programs in an image of what good teaching looks like. Numerous aspects, attributes, and characteristics of successful teacher preparation may not be directly observable by those who are evaluating, but the unobservable ideas are often what interests the evaluators of these programs the most. These can include, but are not limited to, the substance of instruction, the quality of the lessons being taught, faculty qualifications, how well these programs effectively prepare new teachers, the teacher candidate's employability, and overall success in ensuring high-quality teachers make it into the career field. Teacher preparation program evaluations can use a variety of

different evidence to estimate the attributes that the school, local government, or federal government deems of interest. Research suggested that quality teacher preparation programs often include a recognized minimum number of required hours spent inside of a school doing fieldwork, which can refer to student teaching in schools, observing experienced teachers, or working alongside of a teacher inside of a classroom. These programs also do well at providing situational simulations, access to case studies, and analyses of teaching methods, curriculum and what student work should look like (Feuer et al., 2013; Tamir, 2020).

One issue that has arisen over the years is the ability to coordinate data across different states. While information from teacher licensure tests can typically be obtained fairly easily, because there is a wide variety in test content and different scoring systems, it is difficult to compare results across state lines, which makes factors even less clear for all stakeholders involved. Without some sort of minimum requirements for teacher preparation programs, set at a federal level, students in classrooms will continue to suffer. Darling-Hammond et al. (2002) suggested, “Measures to improve teacher education programs will do little to improve teacher quality if states allow schools to hire teachers without preparation” (p. 297). Until states decide to work together to determine these minimum requirements, progress on resolving the issue will never be achieved (Darling-Hammond et al., 2002; Feuer, et al., 2013).

By viewing teacher preparation as a pillar that collaboratively addresses student and community needs, rather than relying on traditional models that emphasize methods and foundations courses, eventually, university-based programs will increase their own program effectiveness, and the quality of their candidates.

Job Placement

Today, the field of education is filled with a workforce that is younger and less experienced, more likely to have higher rates of professional turnover, and is more diverse than their colleagues prior, in terms of their preparation experiences (Feistritzer et al., 2011; Ingersoll & Merrill, 2010). While people in the industry noticed these changes in the teacher workforce, pinning down the exact cause, especially as it pertained to the relationship of teachers and their effectiveness, can be difficult. For example, a large portion of the literature dedicated to this topic often estimated the relationship between effectiveness and experience, measured by simulated value-added models. These studies provided reasonably consistent findings, which showed that effectiveness in teachers increased, typically during the first three to five years. Those same studies highlighted how returns to experience diminish after that window (Harris & Sass, 2011; Henry et al., 2011; Henry et al., 2012). However, little is known about how effectiveness is measured, based on the preparation teachers received before beginning their careers in the classroom, because teachers have traditionally begun their careers with varying levels of preparation in the content, pedagogy, and classroom management areas that were necessary for success in the classroom (Henry et al., 2014).

Traditionally speaking, well respected labor economics theory suggested that individuals were more concerned with employers' overall working conditions, with things such as crime rates, workplace hostility, their place in the institutional hierarchy, and opportunity for advancement, at the top of the list. These same theories surmised that compensation-related factors, like current salary, potential salary, and benefits packages often influenced a person's decisions when deciding between potential employment

opportunities (Goldhaber et al., 2007). However, for teachers, one of their primary working condition concerns appeared to be the types of students that they would work with on a day-to-day basis (Guarino et al., 2006; Hanushek et al., 2004).

Even though the types of students that teachers encounter may be the most important thing to consider when compared to the numerous other factors that influence job selection, such as safety in the neighborhood or school, the leadership quality inside the building, or even the school climate. Teachers that work in high-risk schools end up being, on average, less educated than other educators in better schools, because they traditionally come from lower-quality teacher preparation programs, and they typically perform at a lower standard on credentialing exams than those educators who attended higher performing teacher preparation programs at less needy institutions (Lankford et al., 2002). Further research demonstrated that, if given an opportunity to leave an at-risk school, experienced teachers would typically take advantage and move to a placement in higher-achieving school districts in more affluent neighborhoods. The probability that educators transferred out of a struggling school to another school increased as the poverty level and population of minorities increased in the school, with novice teachers being the ones far more likely to leave (Goldhaber et al., 2016).

Another issue that is prevalent for many districts across the nation is the ability to attract, recruit, hire, and then keep talented teachers, especially in the most impoverished districts. Despite there being clear evidence that most brand-new teachers are not as effective as they could possibly become, schools with students that fall into the high-poverty and high-minority categories are disproportionately filled with teachers who happen to be new to the profession. Students in those high-poverty and high-minority

schools are also disproportionately affected when it comes to hiring and retaining teachers with a strong background in subjects they are certified to teach. According to Anderson (2019), “Fourteen percent of teachers in low-poverty settings leave their schools every year, a percentage that is already high among new teachers, twenty-one percent of teachers in high-poverty settings leave their schools annually” (p. 4). As unfortunate as it may sound, classes in high-poverty and high-minority secondary schools are extremely more likely to be taught by educators who do not possess the certification for the class in which they are teaching (Anderson, 2019; Peske & Haycock, 2006).

As high-need districts continue to struggle to hire "highly-qualified" teachers for their ranks, district leaders must understand that the yearly ritual of placing whoever remains in the applicant pool at the end of the summer into the unfilled positions is not an ideal practice. Academically stronger, confident, and better-prepared teacher candidates would love the opportunity to teach in these high-risk districts, and that includes teaching in the absolute highest-need schools. However, getting teachers into the classrooms where they are desperately needed will depend on numerous factors. School districts need to work with local teacher preparation programs in an effort to place the highest quality teachers into the schools that need them most. Also, school districts need to work on reviewing their hiring processes, pay scales, extra incentives, and miscellaneous issues that possibly turn the best applicants away, which forces districts to hire new teachers from a depleted and far weaker pool of applicants. Ultimately, most classrooms end up with an educator, but the educator in question may not provide the quality teaching needed to ensure suitable student growth (Kimbrel, 2019; Peske & Hayock, 2006).

Typically, schools use traditional hiring practices to fill open positions, by identifying key qualifications and quantifying prior experience, to find suitable candidates. However, these metrics, and others most districts use, such as advanced degrees, scores on licensing tests, college grade point average, and college major have provided no correlation with successful teaching and student achievement. Kimbrel (2019) also found that a majority of hiring decisions in at-risk schools were driven by the principal of the school, often without input from others. Given the undeniable connection between high-quality teachers and student achievement, if high-risk districts are willing to make the necessary changes to hire, train, and retain their best teachers, rather than lose them to other districts, these schools will be working toward improving outcomes for children, which is the main objective (Kimbrel, 2019; Peske & Haycock, 2006).

These issues are especially prevalent in urban communities and schools and are massive in terms of the training and employment of minority teachers for these communities, where there is an even smaller pool of qualified candidates to choose from. The typical policy response to these educator staffing issues, especially in urban districts, has been to work more to increase the supply pipeline of minority teachers, through numerous development programs (Ingersoll et al., 2019). Since the late 1980s multiple organizations, such as the National Collaborative on Diversity in the Teaching Force, the American Association of Colleges of Teacher Education, and Education Commission of the States pushed for and were able to implement a variety of ideas designed to attract candidates into teaching, working extensively with minority groups to boost their representation. Also, groups such as the DeWitt Wallace-Readers' Digest Fund, and the Ford Foundation, committed significant amounts of financing towards recruiting and

preparing minority teachers. Aside from traditional educator recruitment efforts, these groups were able to work to install future educator programs in high schools all over the United States, open collaborative partnerships with two-year schools that have higher minority student enrollments and local four-year colleges that have teacher education programs, career assistance and advancement for people already serving as paraprofessionals in school systems, and alternative certification programs for those who are qualified to become educators (Ingersoll et al., 2019).

One major point of concern that at-risk schools contend with is teacher shortages. Not only are minority teachers extremely likely to be more than capable of teaching minority students, but research suggest that they are also likely to be driven by a "humanistic commitment" to education and that feeling that they are "making a difference" in the lives of students who are disadvantaged situations. With that, the reasoning holds, minority teacher candidates are more likely than nonminority teacher candidates to look for and accept employment in school districts that are often urban, low-income with higher minority student populations. Research has shown that urban, poverty-stricken public schools that primarily serve minority students disproportionately suffer from teacher shortages, so a diversification of the teacher candidate pool is viewed as a potential solution to the problem of teacher shortages in at-risk school districts and school districts across the board (Ingersoll et al., 2019).

There is also research to suggest that new teachers consider numerous factors when deciding where to look for their first job, but the most important attribute is typically location. According to Boyd et al. (2005), "Most public-school teachers take their first public school teaching job very close to their hometowns or where they

attended college" (p. 6). Kimbrel (2019) noted, "Most new teachers desire a teaching position near the community in which they grew up or minimally, in an area very similar to their hometown" (p. 4). Future educators are clearly choosing jobs based on geographical location and not necessarily because of the teacher preparation program that they have completed. Part of this could be based on a candidate's familiarity and comfortability with where they either grew up, or where they completed their teacher preparation program. Knowing the local school districts could also help push a teacher candidate towards, or away from, potential districts, based on their knowledge of the area. The general consensus showed that students who grew up in or went through their teacher preparation program in an urban environment tended to take jobs in urban environments. The same went for those who lived and schooled in suburban environment (Boyd et al., 2005; Kimbrel, 2019).

Researchers identified multiple dimensions of commitment for teachers, but most importantly teachers typically have a strong loyalty to someone or something, which helps guide them throughout their career. Those perceived factors are often considered precursors to the commitment to teaching, and they help explain why people choose to enter the teaching profession. According to Moses et al. (2016), "Different studies have established that commitment to teaching is affected by different antecedents including personal characteristics (e.g., age, gender, self-efficacy and background), working condition, job satisfaction, learning experiences both prior and during teacher education, and experience in the profession" (p. 478).

According to Kimbel (2019), "Lower salaries and challenging working conditions can necessitate the hiring of less experienced teachers, more out of field teaching

assignments, larger class sizes, and in general, teachers not prepared for the realities of teaching" (p. 4). Therefore, at-risk school districts that really want to get high-quality individuals into their buildings must launch proactive recruitment efforts earlier in the year than they are typically accustomed to. Also, these schools must work better at selectively targeting applicants from high-quality teacher preparation programs, while scouring other nontraditional sources of high-quality applicants, in an effort to stock the cupboard with the best teachers possible. These schools need to utilize their own highly qualified teachers and administrators that are already in the building and get them to serve as part-time recruiters, which could help to attract the best teachers possible. Struggling schools must also work to communicate compelling messages, speak openly about the positive attributes of teaching in high-needs schools, and extend highly-qualified applicants early invitations to meet the current staff at these schools, so that they can hear firsthand about their experiences (Kimbrel, 2019; Levin & Quinn, 2003).

Retention

Schools all over the country are facing one similar issue, and that is, beginning teachers are leaving schools at an astronomical rate. A shortage of qualified teachers harms student learning outcomes, affects other teachers, and it places a strain on the public education system. Overall, a lack of adequate, qualified teachers and the instability that accompanies constant staff turnover reduces teachers' effectiveness and threatens students' ability to learn. Also, high rates of teacher turnover often consume massive amounts of economic resources that desperate schools need. This teacher shortage crisis is also spread unevenly among schools of different socioeconomic backgrounds, and schools without adequate resources tend to be hit the hardest. This cycle consistently

challenges the education system in the United States, by making it more difficult to train and retain excellent teachers, so that they can provide a high-quality education equitably to all children (García & Weiss, 2020).

Garcia and Weiss (2020) also found that, “13.8 percent of teachers are either leaving their school or leaving teaching altogether” (p. 1). Their research also showed that “schools are having a harder time filling the vacancies that turnover, attrition, and other factors (like increasing student enrollment or broadened curriculums) create” (p. 1). From 2008 through 2016, colleges and universities across the United States saw a 15.4% drop in education degrees awarded, and simultaneously saw a 27.4% drop in students who finished their teacher preparation programs (Garcia & Weiss, 2020). Since the entire school system in the United States is in desperate need of dedicated and skilled teachers, who are willing to work in, and commit to at-risk schools long enough to make a lasting difference in school quality and student performance, training and retention of the candidates is paramount (Freedman & Appleman, 2009; Garcia & Weiss, 2020).

While some experts felt when teachers left schools the achievement potentially suffered, Feng and Sass (2017) noted, “The effects of teacher labor market decisions on teacher quality and student achievement are ambiguous” (p. 1). Their theory suggested when the highest quality teachers acquire skills that are valued in other occupations and are subsequently transferable, attrition tends to reduce average teacher quality throughout the career field. Feng and Sass (2017) also mentioned, “attrition may have a positive effect on the average quality of teachers if relatively less-effective teachers receive little job satisfaction, voluntarily leave the profession and are replaced by more able teachers” (p. 1). Their research also explained how the effect on the distribution of teacher quality

across schools and movement of teachers between schools is not always clear. Mobility between schools could increase the divergence in quality education across schools, especially if the school districts that serve disadvantaged populations always lose their best teachers to districts serving more advantaged students. However, it is entirely possible that teachers switching schools has little to no effect on the distribution of quality educators across schools, and these transfers simply enhance the quality of the teachers that have moved. While some turnover in schools is generally thought to be acceptable, as it can bring new ideas, different skill sets to schools, and a new energy that others can feed off of, too much turnover could be the start of a myriad of instructional, financial, and organizational costs, especially in at-risk schools and districts (Feng & Sass, 2017; Marinell & Coca, 2013).

Over the course of history, teacher turnover increased exponentially in public school districts across the United States. In what are typically considered historically underserved communities, the problems that are caused by high turnover rates are especially problematic, and they make it extremely difficult for school districts to attract and develop highly-qualified and effective teachers. As a result of this deficiency, low-income and minority students who attend at-risk and hard-to-staff schools are subsequently taught by the least experienced, least effective teachers available. Hanushek et al. (2001) noted, “Over 25 percent of teachers in the bottom quartile schools leave each year, while in the top quartile schools less than 20 percent leave. The largest difference is in the probability of exiting public schools entirely” (p. 29). These differences seem to imply that the students who are achieving at the lowest rate are more likely to have teachers who are brand new to the profession, and to the school, and other evidence

strongly suggested that this trend will continue to adversely affect achievement. Any effort to resolve these staffing problems primarily focused on the recruiting aspect of hiring staff. Often, teachers in high-poverty districts and schools are lured there with great visions and lots of wonderful talk, but without a system to systematically support, develop and retain them once they are in the building (Hanushek et al., 2001; Simon & Johnson, 2015).

Because problematic staff turnover is persistent in public schools that typically serve low-income communities, making a sustained effort to force improvement can be an extraordinary challenge. However, there is a strong body of literature that has reframed the question of turnover by exploring if the notoriously poor working conditions that exist in a majority of low-income schools, to determine if those conditions might be a more powerful driver of teacher turnover, when compared with the original idea of student demographics. When added to the current research, this second set of studies suggested that teachers who leave schools serving low-income, minority students, are not fleeing their students, but the work environment. Frequently, the working conditions in these schools serve as more of a roadblock, and they impede their chance to teach, and in turn, their students' chances to learn. This all suggests that policy makers, struggling districts, and administrators who wish to retain talented, highly effective teachers in high-poverty, hard-to-staff schools, must create and enact retention strategies that are specifically designed to improve the teaching environment for everyone involved. There is even evidence to suggest that in the long run, if there are greater entry and retention rates of well-prepared teachers into a building, it may actually save districts on the costs

of hiring, inducting, and replacing underprepared recruits who leave at high rates (Darling-Hammond, 2000a; Simon & Johnson, 2015).

Teacher shortages, especially in low-income, high-poverty at-risk schools, are not new. At times throughout the past 50 years or so, there have been fewer teachers available than were needed to fill classrooms. Garcia and Weiss (2019a) explained through their research,

> The teacher shortage is real, large and growing, and worse than we thought. When indicators of teacher quality (certification, relevant training, experience, etc.) are taken into account, the shortage is even more acute than currently estimated, with high-poverty schools suffering the most from the shortage of credentialed teachers. (p. 1)

Policy makers at the state and federal levels repeatedly responded by creating legislation that steps up recruitment efforts, or fills gaps by issuing temporary teaching credentials to those who do not possess the proper qualifications. Some states, like North Carolina, have even gone as far as offering an $1800 end-of-the-year bonus to teachers certified in critical areas, and working in at-risk schools (Feng & Sass, 2018). From one perspective, the effectiveness of the North Carolina bonus program could be measured by looking at the reductions in teacher turnover, which fell by nearly 5%. This suggested that the program spent approximately $36,000 for every teacher whose departure was averted or delayed. Clotfelter et al. (2008) surmised that this program increased retention rates of teachers from the schools traditionally serving disadvantaged and low-performing students means that this particular program could have positively affected student achievement (Clotfelter et al., 2008; Cochran-Smith, 2004; Garcia & Weiss, 2019a).

Historically speaking, researchers and policy makers often assumed that teacher turnover is harmful to student learning. There are many statistical indications that would point to this assumption, especially when considering that institutional memory is lost with the turnover, and resources, such as time and money, are spent on the hiring process. Yet, there is very little empirical evidence that quantifies a direct effect of teacher turnover on student achievement. With that said, organizational management literature often demonstrated that minimal amounts of turnover in schools may actually be beneficial to institutions and individuals, when managed properly. Institutional turnover could possibly result in better hiring matches, and with that, the possible infusion of new ideas into these organizations. These benefits of turnover can even become enhanced, if the less effective employees are the ones who leave. There is also a growing body of evidence that indicates that educators who elicit higher student achievement gains are at least as likely, and often more likely, to stay in the schools that they are in, when compared to their less-effective peers (Boyd et al., 2011; Goldhaber et al., 2007; Hanushek & Rivkin, 2010; Ronfeldt et al., 2013).

Recent studies indicated that a reasonably high rate of teacher attrition is the key contributor to the national teacher shortage, accounting for nearly 90% of yearly teacher demand (Sutcher et al., 2019). Common assumptions implied that the relative effectiveness of teachers who stayed was actually highest in at-risk schools with more low-achieving students. The theory is, students are benefiting when they are able to learn from teachers who are more effective than the ones who left the school. But turnover may impact student achievement beyond the relative effectiveness of those who stay as compared to those who leave. One example might be that the relationships and

collaborations that were built up previously, are now lost, and new teachers must come in and build those things from the bottom up. Some would argue that the relationships between colleagues, as well as the relationships between teachers and students, are paramount for positive gains in student achievement. Also, schools often respond to teacher shortages by hiring inexperienced or unqualified educators, increasing class sizes, or eliminating classes or sections taught in their schools, all of which have a direct impact on student learning (Sutcher et al., 2019). According to Carver-Thomas and Darling-Hammond (2017), "Both teacher inexperience and rates of turnover negatively impact student learning, which means that students in schools with high turnover and few experienced teachers are at a decided educational disadvantage" (p. 1). To that degree, turnover disrupts the formation or maintenance of all of these types of relationships, and subsequently, it may also harm student achievement (Ronfeldt et al., 2013).

In a perfect scenario, turnover could possibly allow for the infusion of new ideas into an organization, which could potentially help raise student achievement, and show positive achievement gains. If schools are able to remove teachers who are unable to keep up with their high-flying counterparts, it is almost like addition by subtraction, provided the teachers that are staying are able to get the new incoming teachers up to speed. Gibbons et al. concluded (2018), "exits of underperforming teachers raise student achievement" (p. 4). There is a limited amount of research available that points to this conclusion, and some simulations even estimate that the dismissal of the least effective teachers in at-risk schools would dramatically improve student achievement. Most of these studies conclude with similar findings. Bringing in good teachers raises student achievement, hiring bad teachers lowers student achievement, losing good teachers

lowers student achievement; and losing bad teachers raised student achievement. However, most of these simulations make assumptions regarding the hiring and retention of more effective teachers, which may be overly optimistic (Adnot et al., 2015; Gibbons et al., 2018).

Summary

This review of literature touched on numerous topics such, as teacher shortages, educational legislation and policies, the design, implementation, and evaluation of teacher preparation programs, job placement for future educators, and factors that affect retention of those educators once they are placed into the field of education. In Chapter Three, the researcher will introduce the research methodology for this mixed methods study investigating students completing an educational degree path, who are choosing to take jobs that they are over-qualified for, in order to avoid certain positions in at-risk schools or districts. This chapter focuses on the research design, population of the study, and methods of data collection and analysis.

Chapter Three: Research Method and Design

The purpose of this chapter is to introduce the research methodology for this mixed methods study investigating students completing an educational degree path, who are choosing to take jobs that they are over-qualified for, in order to avoid certain positions in at-risk schools or districts. This chapter focuses on the research design, population of the study, and methods of data collection and analysis. These methods assisted the researcher in acquiring quantitative and qualitative information on the research questions, which are: How do recent graduates determine their initial employment path after receiving their teaching certification? What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

Subjects

The participants involved in this study were students from the School of Education at a small private university in the Midwestern region of the United States. The quantitative portion involved students who had recently graduated from the educational program at this university and were placed in their first position, during their first year. The qualitative portion involved students who were in the field experience portion of the educational program, which is typically at the end of their studies, and leads to a degree in education and a state certification to teach.

The qualitative portion had seven participants which were broken into this demographic caricature: Six white females, one white male; Four were aged 18 to 24, two were aged 25 to 34, and one was aged 35 to 44. The researcher contacted two different Student Teacher Coordinators at the university to help facilitate the distribution of a

Qualtrics Survey to their Student Teacher Candidates. The Student Teacher Coordinators were able to distribute the survey to every student teacher candidate in the program during the 2019 spring semester.

Research Questions and Null Hypotheses

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

Null Hypothesis 1: There is no difference between the percentage of recent graduates hired to work in non-at-risk and failing schools compared to the percentage of hired to work in at-risk schools.

Null Hypothesis 2: There is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary, Middle, or Secondary schools.

Null Hypothesis 3: Subject matter graduates in science are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 4: Subject matter graduates in math are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 5: Subject matter graduates in English are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 6: Subject matter graduates in social studies are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 7: Subject matter graduates in FACS/business/tech are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 8: Subject matter graduates in music/arts are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 9: Subject matter graduates in PE/Health are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 10: Subject matter graduates in Special Education are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 11: Graduates taking non-certified positions are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 12: Graduates certified in elementary are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 13: Graduates certified in middle school are not more likely to work in a non-at-risk school compared to an at-risk school.

Research Design

Qualitative Data

A qualitative survey piece (a 15-question survey), was administered to determine if recent graduates were taking jobs that they are over-qualified for, to avoid working somewhere that graduates may consider less desirable. By asking questions about the job search, application process, and hiring process, the researcher aimed to answer the main research question. Survey research design encompasses any measurement procedures that involve asking questions of respondents. A survey can be designed in numerous ways, including the online method, which was used in this study. This type of survey research

design was considered suitable for this study because it was practical, versatile, and it allowed the researcher to reach a wider pool of participants. This process also allowed the researcher to collect original data from the respondents, gather opinion-based responses, and gain insights connected to the overarching research question of the study.

Quantitative Data

The quantitative data used for this research was secondary data provided by the state Department of Elementary and Secondary Education, initially collected to help provide data for the Higher Education Act of 2014, that looked at school graduation data to help determine if states were meeting teacher credentialing criteria. There were a total of 109 data points, or participants who contributed to the secondary data pool, in the quantitative portion of this study The data lists years employed in the state, years employed at a school district, school employed in, district employed in, and position of the employee.

The researcher was given the secondary data by the study site, the Midwestern University. The data contained individualized graduation information from every student teacher candidate, notably their years teaching in the state, years in this district, and their years in public education. The data also showed which district the graduate was placed in, what school they were placed in, and what level or subject they taught. From the data, the researcher set out to identify subject matter and placement of grade level of recent graduates and where students were placed (at-risk school or not). Only first-year teachers were considered for this study. Also, the teachers were broken into multiple groups, such as elementary, middle or high school, and then subgroups, such as math, English, social studies, science, family and consumer science/business/tech, music and arts, and

pe/health. From there a *z*-test for difference in proportions statistical analysis was performed to measure a comparison of the groups, checking for differences.

Threat to Validity

The data researched was from a one-year window, from one university, in one state, and it only encompassed those who graduated from the school of education and who found employment in public schools in one state. Graduates who were hired to work in private schools or out of state were not included in this data set.

Summary

Overall, this mixed methods study discussed the research design, population of the study, and methods of data collection and analysis. These methods assisted the researcher in acquiring quantitative and qualitative information on the research question and helped explain the threat to validity. The next chapter will discuss the data analysis leading to the results of the study.

Chapter Four: Analysis

This study attempted to investigate careers students choose to take in their first year after completing an educational degree from one study university's teacher preparation program. Specifically, this study sought to identify how first-year teachers chose their jobs, and what perceptions helped them make that decision. This researcher also examined the different perceived factors that could play a role in how those teachers chose that first job, such as the location of the school, the potential to be hired, their alumnus or student teaching status, starting salary, and the perceived achievement level of the schools.

While the examined raw data showed where teachers were employed, the researcher was determined to gain an in-depth understanding of numerous variables. Therefore, mixed methods were used to provide insight into first-year teachers' employment. To provide some of the perceived aspects of these potential positions, participants voluntarily completed an anonymous, electronic 15-question survey to determine if recent graduates were accepting employment in districts that they were over-qualified for, to avoid working in less desirable districts, as determined by graduates. These questions gave the researcher insight into how future educators perceived potential places of employment, and how they chose their first place of employment. All questions were analyzed for common themes. Secondary data were analyzed using a Two-Population Proportion *z*-test and a Regression Routine. Results from this data allowed the researcher to answer previously stated hypotheses and research questions.

Null Hypotheses

Secondary data from the Missouri Department of Elementary and Secondary Education listed Adequate Yearly Progress Scores. Schools with a score that fell under the 70% threshold were considered failing, and schools between 75% and 70% were considered at-risk. Table 1 shows how many schools were considered adequate, at-risk, or failing, and what percentage each group was in the aggregate.

Table 1

At-Risk and Failing Schools by Percentage

	Number	Percentage
Adequate	322	58
At-Risk	55	10
Failing	176	32
Total	553	100

Null Hypothesis 1: There is no difference between the percentage of recent graduates hired to work in non-at-risk schools compared to the percentage of hired to work in at-risk and failing schools.

Table 2 shows how many graduates were placed in the different types of schools, and whether the school was considered adequate, at-risk, or failing, and that data was used to run a *z*-test for difference in percentage for null hypothesis one.

Table 2

Placement of Recent Graduates by School

Program	At-Risk	Failing	Adequate
Elementary	3	6	61
Middle School	1	5	18
High School	0	3	30
Total	4	14	109

The researcher conducted a two-sample test of difference in proportions to determine if the percentage of recent graduates hired to work in non-at-risk schools differed significantly from the percentage of recent graduates hired to work in at-risk and failing schools. The analysis revealed that the percentage of recent graduates hired to work in at-risk and failing schools (n = 28, 20%) was significantly different from those hired to work in non-at-risk schools (n = 109, 80%); $z = 9.799$. Since the *z*-test value is greater than the critical value of +1.96, the researcher rejected the null hypothesis and concluded there is a significant difference in proportion.

The following data comes from the Missouri Department of Elementary and Secondary Education and a Midwestern University's Annual Report that delineates where recent graduates are employed. The data is broken down to show what types of positions recent graduates of the School of Education are places into during their first year of employment, and it is the data used to analyze Null Hypotheses 2a through 2f.

Null Hypothesis 2a: There is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary, Middle, or Secondary schools.

A regression was applied to determine whether there was a relationship between the program major and the likelihood of working in an Elementary, Middle, or Secondary school setting. Table 3 shows exactly where the recent graduates were able to gain employment, broken down by level of school and department, where necessary.

Table 3

Placement of Recent Graduates by Subject

Program	Elementary	Middle	Secondary
Elementary	39	0	0
English	0	2	0
FACS-Bus-Tech	0	0	4
Languages	0	0	1
Math	9	3	4
Music-Arts	0	3	2
PE-Health	0	0	7
Science	0	5	2
Social Science	0	0	2
Social Studies	0	1	4
Study Skills	0	3	1
Misc.	0	0	2
Aides	17	5	2
SSD	5	2	2
Total	70	24	33

Null Hypothesis 2a was rejected and a relationship was established (*F*-test = 0.741742; *F*-critical = 0.55111) between program major and placement of recent graduates.

The regression statistics are shown on the following table.

Table 4

Regression Statistics

Regression Statistics	
Multiple R	0.42663719
R Square	0.182019292
Adjusted R Square	0.063374921
Standard Error	4.3138221
Observations	14

A closer look at some of the program majors follows:

The following programs were represented exclusively in their category of Elementary, Middle, or Secondary and thus, represent a relationship between the program major and the type of building when entering employment. Elementary program majors, exclusively represented in the Elementary schools, made up 55.7% of the Elementary school portion of the sample population. English program majors, exclusively represented in the Middle Schools, made up 8.3% of the Middle school sample population. Other subject area programs, exclusively represented in the Secondary schools, were FACS-Bus-Tech, Languages, PE-Health, Social Science, and Miscellaneous, which made up 48.5% of the Secondary school sample population.

Table 5 helped establish an exclusive placement sample population, where recent graduates were included only if the job that they were placed in was exclusive to that level of school or department.

Table 5

Exclusive Placement of Recent Graduates Sample Population

Program	Elementary	Middle	Secondary
Elementary	39	0	0
English	0	2	0
FACS-Bus-Tech	0	0	4
Languages	0	0	1
PE-Health	0	0	7
Social Science	0	0	2
Misc.	0	0	2
Total	39	2	16
%	55.7	8.3	48.5

Z-tests for difference in proportions verified those with significant relationships between the program major and type of building for employment.

Null Hypothesis 2b: There is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary to Middle school percentages.

The researcher conducted a two-sample test of difference in proportions to determine if those completing the Elementary School teacher preparation program

differed with those completing the Middle School teacher preparation program with building employment. The analysis revealed that the percentage of Elementary School teacher program completers placed in schools (n = 39, 55.7%) was significantly different from Middle School teacher program completers placed in schools (n = 2, 8.3%); z = 4.039. Since the z-test value is greater than the critical value of +1.96, the researcher rejected the null hypothesis and concluded there is a significant difference in proportion.

Null Hypothesis 2c: There is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary to Secondary school percentages.

The researcher conducted a two-sample test of difference in proportions to determine if those completing the Elementary School teacher preparation program differed with those completing the Secondary School teacher preparation program with building employment. The analysis revealed that the percentage of Elementary School teacher program completers placed in schools (n = 39, 55.7%) was not significantly different from Secondary School teacher program completers placed in schools (n = 16, 48.5%); z = 0.686. Since the z-test value falls below the critical value of +1.96, the researcher failed to reject the null hypothesis and concluded there is not a significant difference in proportion.

Null Hypothesis 2d: There is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Middle to Secondary school percentages.

The researcher conducted a two-sample test of difference in proportions to determine if those completing the Middle School teacher preparation program differed

with those completing the Secondary School teacher preparation program with building employment. The analysis revealed that the percentage of Middle School teacher program completers placed in schools (n = 2, 8.3%); was significantly different from Secondary School teacher program completers placed in schools (n=16, 48.5%); $z = 3.220$. Since the *z*-test value is greater than the critical value of +1.96, the researcher rejected the null hypothesis and concluded there is a significant difference in proportion.

The following programs were not represented exclusively in their category of Elementary, Middle, or Secondary; however, they were represented in more than one category. Math, Aides, and SSD program majors were represented across all three categories in the Elementary, Middle, and Secondary schools. Math, Aides, and SSD were represented in each of the categories, Elementary, Middle, and Secondary. Music-Arts, Science, Social Studies, and Study Skills were represented in the Middle and Secondary school categories, with no representation in the Elementary category.

Table 6 showed the non-exclusive placement sample population, where recent graduates were included if the job that they were placed in was duplicated across different levels of schools or departments.

Table 6

Non-Exclusive Placement of Recent Graduates Sample Population

Program	Elementary	Middle	Secondary
Math	9	3	4
Music-Arts	0	3	2
Science	0	5	2
Social Studies	0	1	4
Study Skills	0	3	1
Aides	17	5	2
SSD	5	2	2
Total	31	22	17
%	44.3	91.7	51.5

The following data comes from the Missouri Department of Elementary and Secondary Education and a Midwestern University's Annual Report that delineates where recent graduates are employed. The data shows if recent graduates of the School of Education are being placed into schools that are considered at-risk or failing, based on their initial placement, which was used to analyze Null Hypotheses 3 through 13.

Null Hypothesis 3: Subject matter graduates in science are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 4: Subject matter graduates in math are not more likely to work in a non-at-risk school compared to an at-risk school.

The number of at-risk schools, failing schools, and non-at-risk schools represented in the sample for this study are indicated on the following table.

Table 7 breaks down the placement of recent graduates based on their employing school's level of risk. Schools with a score that fell under the 70% threshold were considered failing, and schools between 75% and 70% were considered at-risk.

Table 7

The Employing School's Level of Risk

Program	At-Risk	Failing	Neither
Elementary	3	2	35
English	0	0	6
FACS-Bus-Tech	0	4	21
Languages	0	0	1
Math	0	7	8
Music-Arts	3	3	9
PE-Health	0	1	16
Science	0	1	15
Social Science	0	0	4
Social Studies	0	0	7
Study Skills	1	4	6
Misc.	0	1	5
Aides	0	0	23
SSD	0	1	14
Total	7	24	170

To analyze Null Hypothesis 3 through 13 a regression routine was applied to check for potential relationships between the program major and working at an at-risk school, non-at-risk school, or neither. Collectively, the null hypotheses were not rejected and the outcome was that these program majors were more likely to work at a school that was neither at-risk nor non-at-risk (*F*-test = 0.612592; *F*-critical = 0. 622156). Because the *F*-test value of 0.6122592 is less than *F*-critical, the null hypotheses are not rejected. No relationships were established.

Null Hypothesis 5: Subject matter graduates in English are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 6: Subject matter graduates in social studies are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 7: Subject matter graduates in FACS/business/tech are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 8: Subject matter graduates in music/arts are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 9: Subject matter graduates in PE/Health are not more likely to work in a non-at-risk school compared to an at-risk school.

Null Hypothesis 10: Subject matter graduates in Special Education are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 11: Graduates taking non-certified positions are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 12: Graduates certified in elementary are not more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 13: Graduates certified in middle school are not more likely to work in a non-at-risk school compared to an at-risk school.

Research Questions

For this mixed methods study, participants answered a 15-question survey to determine if recent graduates are taking jobs that they are over-qualified for, to avoid working somewhere that graduates may have considered less desirable. These questions gave the researcher insight into how future educators perceived potential places of employment, and how they chose their first job. All questions were analyzed for common themes based on these research questions:

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

Survey Items

Seven student teacher candidates answered 15 questions. The first set of questions helped establish demographics of participants and helped provide context. Participants were asked their age range, their gender, and their race. Four participants were between 18 and 24 years old, two between 25 and 34 years old, and one was between 35 and 44 years old. All participants responded that they were Caucasian. Lastly, there were six females and one male.

The next set of questions pertained to participants' future employment. Again, these questions were asked to provide context. All seven answered YES to questions 4 through 7 (Do you have a job for fall of 2019; Is that job in the field of education; Is it a

full-time teaching position; Is it in your certified content area). Question 8 helped establish what type of building these student teacher candidates would be working in. Three participants were working in elementary schools, while the remaining four took placements in high schools. Question 9 established the participants' subjects that they would be teaching. All the elementary teachers are working at the second-grade level. Three of the high school educators ended up in English classrooms, and the last one is teaching life skills.

Questions 10 through 13 looked at perceptions that participants had when selecting their first position of employment. Question 10 asked if this placement was considered a long-term job or a stepping-stone position. Five responded that this was ultimately a long-term position, while two said that their place was a stepping-stone for their career. Question 11 asked if participants considered their future employer to be a high-achieving school, an average-achieving school, or a low-achieving school. Only one participant considered their school to be low-achieving, two considered their school to be average-achieving, while the remaining four seemed to think that their school was considered high-achieving. Question 12 asked if participants limited their applications to districts that they perceived were high achieving. Three responded that they did not limit their applications, while four only applied to districts that they perceived were high achieving. Question 13 asked if this was the participant's first career position, and all participants responded that this was their first career position. Question 14 specifically dealt with the willingness to work in a school that is considered at-risk. It asked, "Are you willing to work in a school that is at-risk?" Three participants agreed that they were, while four responded that they would not be willing to work somewhere that was at-risk.

Question 15 addressed potential factors that went into exactly why these student teacher candidates chose their first teaching position. Respondents were asked to rank their answers based on importance to their decision-making process, with 1 being the most important and 6 being the least important. This question had six possible choices (Alumnus of School, Location, Perceived Achievement Level, Starting Salary, Potential to be Hired, and Where you Student Taught). Unfortunately, one person in our survey group did not answer this question, so the data points have been reduced by one, to six.

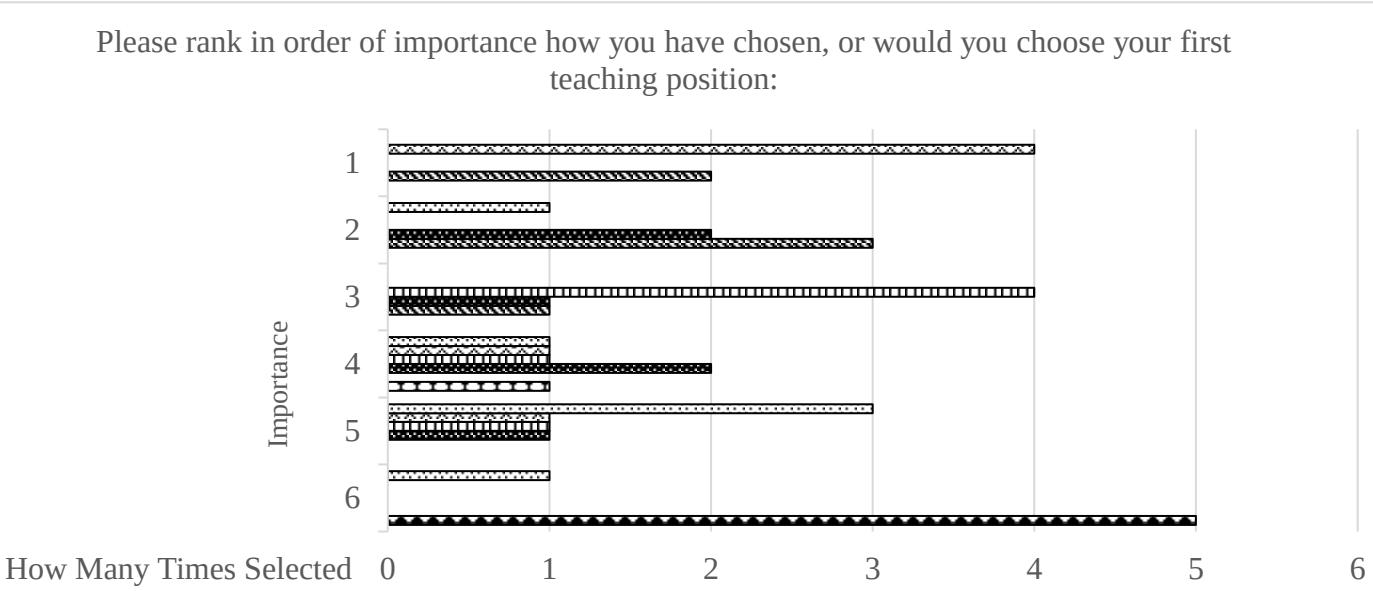
Common Themes

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

As overviewed in Figure 1, Potential to be Hired was one common theme, as the number one selection for 4 of the 6 respondents. Location was another common theme, being chosen either 1, 2, or 3 by everyone. Starting salary was listed as the third most important factor by a majority of people (4). Perceived achievement level sat in the middle for most respondents. Being an alumnus of a school or where respondent student taught had little-to-no impact on the selections, being rated in the three lowest spots by almost everyone who answered.

Figure 1

Responses to Question Regarding Choosing First Teaching Position



	6	5	4	3	2	1
Where you Student Taught	1	3	1	0	1	0
Potential to be Hired	0	1	1	0	0	4
Starting Salary	0	1	1	4	0	0
Perceived Achievement Level	0	1	2	1	2	0
Location	0	0	0	1	3	2
Alumnus of the School	5	0	1	0	0	0

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

Again, questions 10 through 13 of the survey looked at perceptions that participants had when selecting their first position of employment. Question 10 asked if this placement was considered a long-term job or a stepping-stone position. Five responded that this was ultimately a long-term position, while two said that their place was a stepping-stone for their careers. Question 11 asked if participants considered their future employer to be a high-achieving school, an average-achieving school, or a low-achieving school. Only one participant considered their school to be low-achieving, two considered their school to be average-achieving, while the remaining four seemed to think that their school was considered high-achieving. Question 12 asked if participants limited their applications to districts that they perceived were high achieving. Three responded that they did not limit their applications, while four only applied to districts that they perceived were high achieving.

Overall, first-year education school graduates were looking for places of employment that offered a potential to be hired in what they perceived to be high-achieving, long-term positions, in desirable locations, with a good starting salary.

Summary

This mixed-methods study looked at numerous data points and survey answers and produced conflicting results. The quantitative data suggests that recent graduates are just as likely to go to an at-risk or failing school as they are to go to a non-at-risk school, which did not necessarily align with what the qualitative data showed. The qualitative data conveyed that decisions on employment were made using a myriad of factors, and

there were no data suggesting that one specific idea or factor was more important than another. In Chapter Five, the researcher will attempt to connect some data points, define any patterns, and potentially offer some recommendations or solutions to the perceived issue being studied.

Chapter Five: Discussion

Introduction

The purpose of this study was to investigate careers students choose to take in their first year after completing an educational degree from one study university's teacher preparation program. This mixed methods study investigated if students completing an educational degree path are choosing to take jobs that they are over-qualified for, in order to avoid certain positions in at-risk schools or districts. Lastly, this study sought to identify how first-year teachers chose their jobs, and what perceptions helped them make that decision. This researcher also examined the different perceived factors that could play a role in how those teachers chose that first job, such as the location of the school, the potential to be hired, their alumnus or student teaching status, starting salary, and the perceived achievement level of the schools, using two research questions.

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

The hypotheses for this mixed methods study were as follows:

Hypothesis 1: There is a difference between the percentage of recent graduates hired to work in non-at-risk schools compared to the percentage of hired to work in at-risk and failing schools.

Hypothesis 2: There is a difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary, Middle, or Secondary schools.

Hypothesis 3: Subject matter graduates in science are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 4: Subject matter graduates in math are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 5: Subject matter graduates in English are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 6: Subject matter graduates in social studies are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 7: Subject matter graduates in FACS/business/tech are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 8: Subject matter graduates in music/arts are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 9: Subject matter graduates in PE/Health are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 10: Subject matter graduates in Special Education are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 11: Graduates taking non-certified positions are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 12: Graduates certified in elementary are more likely to work in a non-at-risk school compared to an at-risk school.

Hypothesis 13: Graduates certified in middle school are more likely to work in a non-at-risk school compared to an at-risk school.

Discussion and Interpretation of Findings

The current study examined the careers students chose to take in their first year after completing an educational degree from one study university's teacher preparation program. This mixed methods study investigated if students completing an educational degree path are choosing to take jobs that they are over-qualified for, in order to avoid certain positions in at-risk schools or districts. Lastly, this study sought to identify how first-year teachers chose their jobs, and what perceptions helped them make that decision. This researcher also examined the different perceived factors that could play a role in how those teachers chose that first job, such as the location of the school, the potential to be hired, their alumnus or student teaching status, starting salary, and the perceived achievement level of the schools, using two research questions.

Research Question 1: How do recent graduates determine their initial employment path after receiving their teaching certification?

Research Question 2: What perceived factors do recent graduates consider when choosing to work at an at-risk school or a non-at-risk school?

This study used quantitative data supplied by the Department of Elementary and Secondary Education in Missouri. A regression routine was applied to check for potential relationships between the program major and working at an at-risk school, non-at-risk school, or neither. Null Hypothesis 1 (there is no difference between the percentage of recent graduates hired to work in non-at-risk schools compared to the percentage of hired to work in at-risk and failing schools) was rejected. Null Hypothesis 2 was broken into sub-hypotheses (2a-2d), which had mixed results. Null Hypothesis 2a (there is no difference between the teacher preparation program completed and the placement of

recent graduates, when comparing Elementary, Middle, or Secondary schools) was rejected, along with Null Hypotheses 2b (there is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary to Middle school percentages), and 2d (there is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Middle to Secondary school percentages) were all also rejected, and the results showed that there was a significant difference in those proportions. One of the largest contributing factors to these results could have been the percentage of graduates that were placed, which was mostly at the elementary and high school level, which could have affected the results, since there are only two middle school placements when compared to 39 elementary and 16 high school placements.

However, Null Hypothesis 2c (there is no difference between the teacher preparation program completed and the placement of recent graduates, when comparing Elementary to Secondary school percentages) was not rejected and showed that there was not a significant difference in proportion. One of the largest contributing factors to these results could have been the percentage of graduates that were placed, which was mostly at the elementary and high school level, which could have affected the results, since there are only two middle school placements when compared to 39 elementary and 16 high school placements.

Of the 109 placements across multiple grade levels, subject levels, and districts (both at-risk and not at-risk), only 14 were placed into at-risk or failing schools. This means that collectively, Null Hypotheses 3 through 13 were not rejected and the outcome was that these program majors were more likely to work at a school that was neither at-

risk nor non-at-risk. Essentially, the data shows that subject matter taught played no significant factor in determining placements, and teachers were no more likely to work in an at-risk school than they were to work in a school that was not at-risk.

This study also used qualitative data to find correlation amongst the data. Participants answered questions about their first job placement and how they arrived at that decision, which gave the researcher an in-depth analysis of such perceptions. For this study, seven surveys were completed by participants; however, the last question pertaining to participant perceptions was left off by one person that responded. Participants voluntarily answered questions created by the researcher via *Qualtrics*. Participation and survey completion time was average. While the researcher would have hoped for more responses, the ones that were received were adequate for finding emerging themes. The qualitative data showed that location was the number one selection participants, and that was ultimately a major factor for nearly every participant. This is on par with previous research that suggested that the most important attribute for new teachers when selecting a position is typically location. According to Boyd (2005), "Most public-school teachers take their first public school teaching job very close to their hometowns or where they attended college" (p. 6). This is important for numerous reasons. People are clearly choosing jobs based on geographical location and not necessarily because of the teacher preparation program that they have completed. Part of this could be based on a candidates' familiarity and comfortability with where they either grew up, or where they completed their teacher preparation program. Knowing the local school districts could also help push a teacher candidate towards, or away from, potential districts, based on their knowledge of the area. This set of research presented distinct

patterns for teacher candidates, where other studies may have not. In particular it showed that students who grew up or went through their teacher preparation program in an urban environment tended to take jobs in urban environments. The same went for those who lived and schooled in suburban environment (Boyd et al., 2005).

Potential to be hired was the second most popular choice amongst the participants, with four of the six rating it as their top choice. Traditionally speaking, well respected labor economics theory suggested that individuals were more concerned with an employers' overall working conditions, with factors such as crime rates, workplace hostility, their place in the institutional hierarchy (such as teacher, department chair, committee assignments, etc.), and opportunity for advancement, at the top of the list (Goldhaber et al., 2007). The current study found some correlation between that traditional economic theory and the participants responses, especially when considering their place in the hierarchy and the opportunity for advancement. Those two factors are certainly considered a part of the potential to be hired category and fall in line with previous research.

These same traditional economic theories surmised that compensation-related factors, like current salary, potential salary, and benefits packages often influenced a persons' decisions when deciding between potential employment opportunities (Goldhaber et al., 2007). Previous studies also suggested that one of the primary working condition concerns appeared to be the types of students that they would work with on a day-to-day basis (Guarino, 2006; Hanushek et al., 2004). Starting salary and perceived achievement level of the school were equal in this current study. While salary is often important for decision making, it is not traditionally an issue that drives decision making

for educators. However, achievement level, or the types of students that a new educator will work with on a day-to-day basis, is considered one of the largest deciding factors in previously published research. This study did not correlate that thinking to previous material. While achievement level was a factor, it was not as much of a factor as it has been in other research.

Even though location and types of students that teachers encounter may be the most important factor to consider when compared to the numerous other factors that influence job selection, such as safety in the neighborhood or school, the leadership quality inside the building, or even the school climate. Teachers that work in high-risk schools end up being, on average, less educated than other educators in better schools, because they traditionally come from lower-quality teacher preparation programs, and they typically perform at a lower standard on credentialing exams than those educators who attended higher performing teacher preparation programs at less needy institutions (Lankford et al., 2002). Previous research demonstrated that, if given an opportunity to leave an at-risk school, experienced teachers would typically take advantage and move to a placement in higher-achieving school districts in more affluent neighborhoods. The probability that educators transferred out of a struggling school to another school increased as the poverty level and population of minorities increased in the school, with novice teachers being the ones far more likely to leave, which can be problematic for schools that are struggling to begin with (Goldhaber et al., 2016).

Two factors that stood out were the role that student teaching did or did not play in selecting a position for first-year teachers, and how little being an alumnus of a particular school factored into deciding where to initially work. In this study, student

teaching was the second lowest, and being an alumnus was even lower. There are no previous studies that would imply that either of these two factors are able to affect a first-year teacher's decision about employment, but they cannot be discounted either, and both could be used in correlation with potential to be hired.

Recommendations for Further Research

Since this study found that recent graduates are just as likely to go to an at-risk or failing school as they are to go to a non-at-risk school, there are numerous suggestions to improve the study. First, using data from a one-year window at only one midwestern university limited the sample size tremendously. If future researchers were able to use multiple colleges' and universities' graduation data, over multiple years, it could yield different results, especially with placement in at-risk or failing schools.

From a qualitative standpoint, more survey responses could have helped with identifying exactly how or why graduates were choosing their first positions. With that said, having access to a larger pool of recent graduates, especially those from different colleges or universities would be extremely beneficial. Not only could more responses help solidify the current results, having a larger, and possibly more diverse pool of survey participants could yield different results entirely, which is something that could be studied in the future.

Another potential addition to future work would be to survey the participants after a period of time to determine how they felt about the choice that they initially made, if they are still employed at their first choice or if they have left, and what decisions have helped them either stay at their job or move to another, especially if they considered or were placed in an at-risk school.

Practical Applications

First and foremost, schools could use this information to help attract quality candidates to their schools, by knowing exactly what it is that first-year teachers are looking for in a school. While the term "location" may be a broad-brush approach, being geographically located by multiple quality teacher preparation programs should give local schools an advantage when choosing to hire first-year teachers. While salary is important, it is not always a deciding factor, so schools may be able to spend less money in salary, and use the difference to make the day-to-day experience for their teachers better, which is what this study has shown.

Teacher preparation programs can use this information practically as well, especially in a student teaching capacity. If colleges and universities are aware that students in their program use location as the number one reason why they select their first job, they could purposefully place student teachers into programs that deviate from their traditional location. Also, knowing that urban schools and rural schools tend to have less opportunities to acquire student teachers could be an open door for a pipeline for schools that would typically not receive teachers from these programs. Another recommendation would be for teacher preparation programs to intentionally alter the way they offer their student teaching program. Rather than give teacher candidates one type of school to do their training, colleges and universities could require student teachers to spend time in a myriad of schools that range from high-achieving schools in suburban areas to low-achieving urban or rural schools, and vice versa. Allowing student teachers to see the diversity of programs may open them up to the idea of working somewhere that they previously may not have chosen.

There is conflicting evidence in this regard. Numerous experts believed that student teaching in urban settings could be a challenge to some, often reinforcing negative attitudes or teaching practices, and those placements could eventually deter prospective teachers from agreeing to continue in similar settings (Buehler et al., 2009; Grande et al., 2009; Ronfeldt & Reininger, 2012). Others suggested that having students complete their student teaching in an urban setting can be better for teacher learning, based on the working conditions of the school and the surrounding environment (Ronfeldt, 2012).

What is agreed upon is that in the United States, field experiences in preparation programs typically fall under one of two platforms. One idea is shorter in duration and usually integrated into the coursework, where prospective teachers are given a "cooperating" (mentor) teacher, whom they work with in an observational or assistant type capacity. The other idea, and most common for teacher preparation programs in the United States, is a culminating process that ends with "student teaching," where prospective teachers are required to take on lead teaching responsibilities, while under the guidance of an in-service teacher (Ronfeldt & Reininger, 2012). According to Ronfeldt and Reininger (2012), "Though there exists substantial within and across-nation variation in how student teaching is designed, very little substantive research exists on whether some designs are better for teacher training than others" (p. 1092). Shwu-yong and Waxman (2009) coalesced around the idea that school settings where student teaching takes place have the largest influence on student teachers and their careers. Using this research and the studies before, colleges and universities should look to design student teaching experiences that offer prospective teachers opportunities across the educational

spectrum, so that their first-year teachers are able to make informed decisions about their future employment.

Summary of Findings

This mixed-methods study looked at numerous data points and survey answers, all of which showed that recent graduates were just as likely to go to an at-risk or failing school as they are to go to a non-at-risk school. Decisions on employment are made using a myriad of factors, and there is no data suggesting that one specific idea or factor was more important than another, however location did play a major role. Overall, first-year education school graduates were looking for places of employment that offered a potential to be hired in what they perceived to be high-achieving, long-term positions, in desirable locations, with a good starting salary. That seems to be in line with what other types of graduates are looking for in their first position as well.

Regardless how or why new educators select their positions, it is hard to argue there is not a teaching crisis currently in the United States. The Economic Policy Institute (Garcia & Weiss, 2019b) found that the "teacher shortage is real, large and growing, and worse than we thought" (p. 1). Schools all over the country are suffering. Teachers are leaving classrooms in droves, and if school districts are lucky enough to replace these openings, it is often with brand new educators, who may be lacking components of what teaching entails. This is compounded immensely in urban and rural districts, who routinely suffer staffing shortages, and hire under qualified candidates just to fill voids.

Unanswered Questions and Recommendations

One of the issues that the researcher set out to find was if newly certified educators were taking positions that they were over-qualified for, or outside of their

certification, to get a “foot in the door” at a reputable district, as opposed to starting their career in a failing or at-risk school, who are clearly desperate for quality educators. While this small sample of data cannot confirm or reject this idea, this mentality could be one of the many issues plaguing underprivileged schools, and it is possible that teacher preparation programs, along with numerous other factors, are to blame. In order to truly find out what is driving educators away from struggling schools, more “outside of the box” research is needed, simply because the traditional research has been unable to help pinpoint the cause and offer potential solutions.

There are multiple items that colleges and universities who offer teacher preparation programs should consider that could alleviate the issues presented. First, teacher preparation programs should use their expertise in training educators on a more practical level. Most student teaching experiences involve a future educator spending two semesters of their program inside of actual classrooms. Often, that first semester is just an observational time, that acclimates future teachers to schools, classrooms, and students. The second semester is where most potential teachers get to use everything that they have learned in the classroom, and put it into practice, teaching lessons, guiding instruction, and essentially becoming the teacher. At some teacher preparation programs, this is the only time a future educator is given time inside a classroom, and some programs narrow this experience to one semester, which severely limits the practical knowledge that new teachers need in their first year.

One recommendation would be for teacher preparation programs to spend more time on practical application with their candidates, throughout the program duration, instead of waiting until the last semester or two. This means that future educators could

see double the amount of classroom time, learning from established teachers, in a variety of classrooms, which would be beneficial to their development as educators. A second recommendation that could run in conjunction with the previous one would be for teacher candidates to spend a portion of their practical learning in a variety of schools.

Typically, future educators are placed into well-established schools, with a tradition of successful education of students, with strong mentor teachers. This can be quite the opposite to their first teaching experience on their own. With that in mind, teacher preparation programs should work to send their teacher candidates to a multitude of locations, preferably one that is failing, one that is at-risk, and one that is traditionally successful, so that future educators can gain valuable experiences from each. By allowing students to see various schools and classrooms, the benefits could be two-fold. First, potential teachers would get more exposure inside of hard to staff schools while getting those teacher candidates in front of the administrators who make hiring decisions. Second, using a model like the one suggested could sway future educators towards failing or at-risk schools and districts if they have a positive experience during their time there. The potential negative to this idea would be if teacher candidates have a negative experience, and subsequently do one of two things, which are, refuse to work in schools that are struggling, or decide that education is not for them, and quit the teacher preparation program altogether, which depending on where the practical experience falls in the program, may not be a negative for all involved.

Colleges and universities with teacher preparation programs could also attempt to form local partnerships with schools that struggle to staff and work together to send the best and brightest candidates to those schools. If struggling school districts were given

the opportunity to acquire the teacher candidates that excelled in their preparation program, they would also be given the chance to cultivate their abilities, and potentially retain the new teachers' services for longer. New teachers may be interested in looking at a situation like this, simply because in districts where hiring staff is an issue, there is usually a premium placed on salary, and often first-year teachers are paid more at schools that struggle in comparison to those that do not.

Another recommendation to help stop the revolving door of education would be to have districts that routinely achieve at the highest levels partner with districts in the area that struggle to reach their goals. High achieving schools could use their best teachers to help mentor those teachers in struggling schools and possibly help them acquire some tools that they can use to help close the gaps that have occurred. Struggling schools could send their teachers to the high achieving schools to observe what works in that community to bring back something that might work in their community. Having the administrators of these districts collaborate will also improve best practices, and hopefully slow the decline of those leaving the profession.

Lastly, those involved in policy at the federal, state, and local level need to readdress their commitment to education. School districts all over the country are underfunded, teachers are underpaid, the system is stressed, and there does not appear to be relief on the horizon. If policy makers genuinely want to stop teachers from leaving the field, they would ensure that schools receive the funding that they need to operate at the levels that are required by the government. Expectations on teachers are often overbearing considering the salary that most educators make, and when educators add up all these variables, they often find their situation untenable. The easiest answer would be

to increase salaries, decrease the regulatory interference, and ensure every teacher in every school has the resources that they need to educate students.

Reflection

Looking back through this process has been emotional for me. Initially I was interested in finding out how many people took a path into education similar to mine, which was completely non-traditional, so that I could help guide future students in my classes down the best path possible. For me, the connection was even greater, since I am currently teaching at-risk students in a school where roughly 50% live in poverty. It was always my desire to discover why teacher candidates would invest so much time, effort, and money into a certification process, so that when it came time to get hired for their first teaching position, they would instead choose to take a job like Teacher Assistant or Recess Aide; something that they are clearly over qualified for, just to avoid working in a struggling district, when those schools and students are desperate. I wondered why other people would choose that path because, I chose that path, and there is no specific reason why. That eventually morphed into researching what legislation there was regulating teacher preparation programs, finding out how big of a teacher shortage crisis our nation is in, learning as much as possible about how schools attract talent, cultivate their teachers while working to retain them, and most importantly what drives newly certified people to choose their first place of employment. Armed with this information, and the results of my research, it is my hope to help influence decision makers at the college and university level, and administrators and human resource departments in school districts all over the country, to investigate their current practices, to see what could be adjusted to help alleviate the current crisis in the world of education.

Conclusion

The purpose of this study was to investigate careers students choose to take in their first year after completing an educational degree from one study university's teacher preparation program. This mixed-methods study looked at numerous data points and survey answers, all of which showed that recent graduates are just as likely to go to an at-risk or failing school as they are to go to a non-at-risk school. The data showed that decisions on employment are made using a myriad of factors, and there is no data suggesting that one specific idea or factor was more important than another, however location did play a major role. Numerous recommendations to teacher preparation programs were made, focusing on practical application, and suggesting that policy makers increase salaries, decrease the regulatory interference, ensure every teacher in every school has the resources that they need to educate students, and involve all stakeholders at every level, so that we can hopefully alter this educational crisis.

References

Adnot, M., Dee, T., Katz, V., & Wyckoff, J. (2015). Teacher turnover, teacher quality, and student achievement in DCPS. *Educational Evaluation and Policy Analysis*, 0162373716663646.

Aragon, S. (2016). Teacher shortages: What we know. Teacher Shortage Series. *Education Commission of the States*. Retrieved April, 2017 from https://files.eric.ed.gov/fulltext/ED565893.pdf

Avery, C & Turner, S. (2012). Student loans: Do college students borrow too much or -- Not enough? *Journal of Economic Perspectives, 26*(1), 165-192.

Boe, E. E., Shin, S., & Cook, L. H. (2007). Does teacher preparation matter for beginning teachers in either special or general education? *The Journal of Special Education, 41*(3), 158-170.

Borman, K. M., Mueninghoff, E., Cotner, B. A., & Frederick, P. B. (2009). Teacher preparation programs. In *International handbook of research on teachers and teaching* (pp. 123-140). Springer US.

Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The influence of school administrators on teacher retention decisions. *American Educational Research Journal, 48*(2), 303-333.

Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). The draw of home: How teachers' preferences for proximity disadvantage urban schools. *Journal of Policy Analysis and Management, 24*(1), 113-132.

Branch, G., Hanushek, E., & Rivkin, S. (2013). School leaders matter. *Education Next, 13*(1), 62-69.

Brownell, M. T., Ross, D. D., Colón, E. P., & McCallum, C. L. (2005). Critical features of special education teacher preparation: A comparison with general teacher education. *The Journal of Special Education*, *38*(4), 242-252.

Brill, S., & McCartney, A. (2008). Stopping the revolving door: Increasing teacher retention. *Politics & Policy*, *36*(5), 750-774.

Buehler, J., Ruggles Gere, A., Dallavis, C., & Shaw Haviland, V. (2009). Normalizing the fraughtness: How emotion, race, and school context complicate cultural competence. *Journal of Teacher Education*, *60*(4), 408-418.

Carnevale, A., Rose, S., & Cheah, B. (2013). The college payoff: Education, occupations, lifetime earnings. Georgetown University Center on Education and the Workforce.

Carver-Thomas, D., & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. *Learning Policy Institute*.

Clotfelter, C., Glennie, E., Ladd, H., & Vigdor, J. (2008). Would higher salaries keep teachers in high-poverty schools? Evidence from a policy intervention in North Carolina. *Journal of Public Economics*, *92*(5), 1352-1370.

Cochran-Smith, M. (2004). Stayers, leavers, lovers, and dreamers insights about teacher retention. *Journal of teacher Education*, *55*(5), 387-392.

Cochran-Smith, M., & Villegas, A. M. (2015). Framing teacher preparation research: An overview of the field, part 1. *Journal of Teacher Education*, *66*(1), 7-20.

Cohen-Vogel, L. (2005). Federal role in teacher quality: "Redefinition" or policy alignment?. *Educational Policy*, *19*(1), 18-43.

Constantine, J., Player, D., Silva, T., Hallgren, K., Grider, M., & Deke, J. (2009). An

evaluation of teachers trained through different routes to certification. Final Report. NCEE 2009 4043. *National Center for Education Evaluation and Regional Assistance*.

Cowan, J., Goldhaber, D., Hayes, K., & Theobald, R. (2016). Missing elements in the discussion of teacher shortages. *Educational Researcher*, *45*(8), 460-462.

Darling-Hammond, L. (2000a). Solving the dilemmas of teacher supply, demand, and standards: How we can ensure a competent, caring, and qualified teacher for every child. National Commission on Teaching and America's Future, Teachers College, Columbia University.

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

Darling-Hammond, L. (2012). *Powerful teacher education: Lessons from exemplary programs*. John Wiley & Sons.

Darling-Hammond, L., & Baratz-Snowden, J. (2007). A good teacher in every classroom: Preparing the highly qualified teachers our children deserve. *Educational Horizons*, *85*(2), 111-132.

Darling-Hammond, L., & Berry, B. (2006). Highly qualified teachers for all. *Educational Leadership*, *64*(3), 14.

Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286-302.

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Vasquez Heilig, J. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for

America, and teacher effectiveness. *Education Policy Analysis Archives, 13*(42).

Decker, P. T., Mayer, D. P., & Glazerman, S. (2004). *The effects of Teach for America on students: Findings from a national evaluation*. University of Wisconsin-Madison, Institute for Research on Poverty.

Earley, P. M. (2000). Finding the culprit: Federal policy and teacher education. *Educational Policy, 14*(1), 25-39.

Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018). Taking the long view: State efforts to solve teacher shortages by strengthening the profession. *Learning Policy Institute.* https://learningpolicyinstitute. org/sites/default/files/productfiles/Long_View_REPORT. pdf.

Feistritzer, C. E. (2005). *Profile of alternate route teachers*. National Center for Education Information.

Feistritzer, C. E. (2007). *Alternate routes to teaching*. Prentice Hall.

Feistritzer, C. E., Griffin, S., & Linnajarvi, A. (2011). *Profile of teachers in the US, 2011* (pp. 09-14). National Center for Education Information.

Feng, L., & Sass, T. R. (2017). Teacher quality and teacher mobility. *Education Finance and Policy, 12*(3), 396-418.

Feng, L., & Sass, T. R. (2018). The impact of incentives to recruit and retain teachers in "hard-to-staff" subjects. *Journal of Policy Analysis and Management, 37*(1), 112 135.

Feuer, M. J., Floden, R. E., Chudowsky, N., & Ahn, J. (2013). Evaluation of teacher preparation programs: Purposes, methods, and policy options. *National Academy of Education*.

Freedman, S. W., & Appleman, D. (2009). "In It for the Long Haul"—How teacher education can contribute to teacher retention in high-poverty, Urban schools. *Journal of Teacher Education*, *60*(3), 323-337.

García, E., & Weiss, E. (2019a). The teacher shortage is real, large and growing, and worse than we thought. The first report in" The Perfect Storm in the Teacher Labor Market" Series. *Economic Policy Institute*. https://www.epi.org/publication/the-teacher-shortage-is-real-large-and-growing-and-worse-than-we-thought-the-first-report-in-the-perfect-storm-in-the-teacher-labor-market-series/

Garcia, E., & Weiss, E. (2019b, April 16). U.S. schools struggle to hire and retain teachers. Economic Policy Institute. https://www.epi.org/publication/u-s-schools-struggleto-hire-and-retain-teachers-the-second-report-in-the-perfect-storm-in-the-teacherlabor-market-series/

García, E., & Weiss, E. (2020). Examining the factors that play a role in the teacher shortage crisis: Key findings from EPI's' perfect storm in the teacher labor market' series. *Economic Policy Institute*.

Gardner, D. P., Larsen, Y. W., Baker, W., Campbell, A., & Crosby, E. A. (1983). *A nation at risk: The imperative for educational reform* (p. 65). United States Department of Education.

Gatlin, D. (2009). A pluralistic approach to the revitalization of teacher education. *Journal of Teacher Education, 60*(5), 469-477.

Gibbons, S., Scrutinio, V., & Telhaj, S. (2018). CEP Discussion Paper No 1530, 2018. *Teacher turnover: does it matter for pupil achievement*?

Goldhaber, D. (2015). Teacher Effectiveness Research and the Evolution of US Teacher Policy. The Productivity for Results Series No. 5. *George W. Bush Institute, Education Reform Initiative*.

Goldhaber, D., Destler, K., & Player, D. (2007). Teacher labor markets and the perils of using hedonics to estimate compensating differentials in the public sector. (*SFRP Working Paper, No. 17*), Center for Reinventing Public Education.

Goldhaber, D., Gross, B., & Player, D. (2007). Are Public Schools Really Losing Their Best? Assessing the Career Transitions of Teachers and Their Implications for the Quality of the Teacher Workforce. Working Paper 12. *National Center for Analysis of Longitudinal Data in Education Research*.

Goldhaber, D., Krieg, J., Naito, N., & Theobald, R. (2019). Making the most of student teaching: The importance of mentors and scope for change. *Education Finance and Policy*, 1-11.

Goldhaber, D., Lavery, L., & Theobald, R. (2015). Uneven playing field? Assessing the teacher quality gap between advantaged and disadvantaged students. *Educational Researcher*, *44*(5), 293-307.

Goldhaber, D., Lavery, L., & Theobald, R. (2016). Inconvenient truth? Do collective bargaining agreements help explain the mobility of teachers within school districts? *Journal of Policy Analysis and Management*, *35*(4), 848-880.

Goldhaber, D., Liddle, S., & Theobald, R. (2013). The gateway to the profession: Assessing teacher preparation programs based on student achievement. *Economics of Education Review*, *34*, 29-44.

Goodwin, A. L., & Kosnik, C. (2013). Quality teacher educators = quality teachers? Conceptualizing essential domains of knowledge for those who teach teachers. *Teacher Development*, *17*(3), 334-346.

Grande, M., Burns, B., Schmidt, R., & Marable, M. A. (2009). Impact of a paid urban field experience on teacher candidates' willingness to work in urban schools. *The Teacher Educator*, *44*(3), 188-203.

Greenberg, J., McKee, A., & Walsh, K. (2013). Teacher prep review: A review of the nation's teacher preparation programs. *Available at SSRN 2353894*.

Guarino, C., Santibañez, L., & Daley, G.A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research, 76*(2), 173-208.

Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2001). Why public schools lose teachers. *Journal of Human Resources*, *39*(2), 326-354.

Hanushek, E., Kain, J. & Rivkin, S. (2004). Why public schools lose teachers. *Journal of Human Resources,* 39(2), 326-254.

Hanushek, E., & Rivkin, S. (2010). *Constrained job matching: Does teacher job search harm disadvantaged urban schools?* (No. w15816). National Bureau of Economic Research.

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

Heineke, A. J., Mazza, B. S., & Tichnor-Wagner, A. (2014). After the two-year commitment: A quantitative and qualitative inquiry of teach for America teacher retention and attrition. *Urban Education, 49*(7), 750-782.

Heilig, J.V. & Jez, S.J. (2010). Teach for America: A review of the evidence. Boulder and Tempe: Education and the public interest center & education policy research unit. Retrieved June 24, 2020 from http://epicpolicy.org/publication/teach-for-america.

Henry, G. T., Bastian, K. C., & Fortner, C. K. (2011). Stayers and leavers: Early-career teacher effectiveness and attrition. *Educational Researcher, 40*(6), 271-280.

Henry, G. T., Fortner, C. K., & Bastian, K. C. (2012). The effects of experience and attrition for novice high-school science and mathematics teachers. *Science, 335*(6072), 1118-1121.

Henry, G. T., Purtell, K. M., Bastian, K. C., Fortner, C. K., Thompson, C. L., Campbell, S. L., & Patterson, K. M. (2014). The effects of teacher entry portals on student achievement. *Journal of Teacher Education, 65*(1), 7-23.

Higher Education Opportunity Act (HEA) Title II Report Cards on State Teacher Credentialing and Preparation, CFR Citation: 34 CFR 612, 34 CFR 686, Federal Register Number: 2014-28218.

Hollins, E. R. (2011). Teacher preparation for quality teaching. *Journal of Teacher education, 62*(4), 395-407.

Ingersoll, R., May, H., & Collins, G. (2019). Recruitment, employment, retention and the minority teacher shortage. *Education Policy Analysis Archives, 27*(37).

Ingersoll, R., & Merrill, L. (2010). Who's teaching Our children? *Educational Leadership*, *67*(8), 14-20.

Kanstoroom, M., & Finn, Jr, C. E. (1999). Better teachers, Better schools. *Education Leaders Council*. Washington, DC: Thomas B. Fordham Foundation, pp. 3-263.

Kennedy, A. S., & Heineke, A. (2014). Re-envisioning the role of universities in early childhood teacher education: Community partnerships for 21st-century learning. *Journal of Early Childhood Teacher Education*, *35*(3), 226-243.

Kimbrel, L. A. (2019) Understanding Teacher Hiring Practices in Rural, Urban, Suburban Schools in the United States. *International Journal of Education, 11*(3). ISSN 194854762019,

Krieg, J. M., Theobald, R., & Goldhaber, D. (2016). A foot in the door: Exploring the role of student teaching assignments in teachers' initial job placements. *Educational Evaluation and Policy Analysis*, *38*(2), 364-388.

Kuenzi, J. J. (2018). Teacher Preparation Policies and Issues in the Higher Education Act. CRS Report R45407, Version 3. Updated. *Congressional Research Service*.

Labaree, D. (2010). Teach for America and teacher ed: Heads they win, tails we lose. *Journal of Teacher Education*, *61*(1-2), 48-55.

Lankford, H., Loeb, S., & Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis*, *24*(1), 37-62.

Levin, J., & Quinn, M. (2003). Missed opportunities: How we keep high-quality teachers out of urban classrooms. *The New Teacher Project*.

Lewis, W. D., & Young, T. V. (2013). The politics of accountability: Teacher education policy. *Educational Policy*, *27*(2), 190-216.

Loewenberg Ball, D., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of Teacher Education*, *60*(5), 497-511.

Malkus, N., Hoyer, K. M., & Sparks, D. (2015). Teaching Vacancies and Difficult-to Staff Teaching Positions in Public Schools. Stats in Brief. NCES 2015-065. *National Center for Education Statistics*.

Marinell, W. H., & Coca, V. M. (2013). " Who Stays and Who Leaves?" Findings from a Three Part Study of Teacher Turnover in NYC Middle Schools. *Online Submission*.

Moses, I., Admiraal, W.F. & Berry, A.K. (2016). Gender and gender role differences in student teachers' commitment to teaching. *Social Psychology of Education*, 19, 475–492.

National Research Council. (2010). "Better Data on Teacher Preparation Could Aid Efforts to Improve Education." *The National Academies Office of News and Public Information*.

Peske, H. G., & Haycock, K. (2006). Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality: A Report and Recommendations by the Education Trust. *Education Trust*.

Ronfeldt, M. (2012). Where should student teachers learn to teach? Effects of field placement school characteristics on teacher retention and effectiveness. *Educational Evaluation and Policy Analysis*, *34*(1), 3-26.

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4-36.

S. 2367 — 116th Congress: Addressing Teacher Shortages Act of 2019, (2019). Retrieved from https://www.congress.gov/bill/116th-congress/senatebill/2367/text

Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? *Teaching and teacher education*, *28*(8), 1091-1106.

Sass, T. R. (2015). Licensure and worker quality: A comparison of alternative routes to teaching. *The Journal of Law and Economics*, *58*(1), 1-35.

Schuh, M. C., Knackstedt, K. M., Cornett, J., Choi, J. H., Pollitt, D. T., & Satter, A. L. (2018). All means all: Connecting federal education policy and local implementation practice through evidence and equity. *Inclusion*, *6*(1), 45-59.

Shwu-yong, L. H., & Waxman, H. C. (2009). The association of school environment to student teachers' satisfaction and teaching commitment. *Teaching and Teacher Education*, *25*(2), 235-243.

Simon, N. S., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1-36.

Stotko, E. M., Ingram, R., & Beaty-O'Ferrall, M. E. (2007). Promising strategies for attracting and retaining successful urban teachers. *Urban Education*, *42*(1), 30-51.

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, *27*(35).

Tamir, E. (2020). The effects of teacher preparation on student teachers' ideas about good teaching. *Australian Journal of Teacher Education, 45*(4).

Xu, Z., Hannaway, J., & Taylor, C. (2011). Making a difference? The effects of Teach for America in high school. *Journal of Policy Analysis and Management.*

Vagi, R., Pivovarova, M., & Miedel Barnard, W. (2019). Keeping our best? A survival analysis examining a measure of preservice teacher quality and teacher attrition. *Journal of Teacher Education*, *70*(2), 115-127.

Vasquez Heilig, J. & Jez, S.J. (2014). Teach for America: A return to the evidence. Boulder, CO: National Education Policy Center. Retrieved June 24, 2020 from http://nepc.colorado.edu/publication/ teach-for-america-return.

Vedder, R., Denhart, C., & Robe, J. (2013). Why are recent college graduates underemployed? University enrollments and labor-market realities. *Center for College Affordability and Productivity (NJ1).*

Winters, M. A., & Cowen, J. M. (2013). Would a value-added system of retention improve the distribution of teacher quality? A simulation of alternative policies. *Journal of Policy Analysis and Management*, *32*(3), 634-6

Appendix A

1. What is your age?
    a. 18-24
    b. 25-34
    c. 35-44
    d. 45-54
    e. 55-64
    f. 65-74
    g. 75-84
2. What gender do you most identify with?
    a. Male
    b. Female
    c. Prefer not to answer
3. Please specify your ethnicity.
    a. Black or African-American
    b. White
    c. Hispanic or Latino
    d. Native-American or American Indian
    e. Asian/pacific Islander
    f. Other
4. Do you have a job for Fall 2019?
5. Is that job in the field of education?
6. Is it a full-time teaching position?
7. Is it in your certified content area?
8. What type of building will you be working in?
    a. Elementary school
    b. Middle school
    c. High school
9. What grade/subject will you be teaching?
10. Would you consider this a long-term position or stepping-stone position?
11. Do you consider your future employer to be a high-achieving school, average-achieving school, or low-achieving school?
12. Did you limit your applications to perceived high-achieving districts?
13. Is this your first “career” position?
14. Are you willing to work in a school or district that is considered at-risk? Please rank in order of importance how you have chosen, or would choose your first teaching position:
    a. Alumnus of the school
    b. Location
    c. Perceived achievement
    d. Starting salary
    e. Potential to be hired
    f. Where you student taught

Vitae

William J. Lancaster

Professional Expertise:

2010 - Present, Valley Park School District, Director Alternative Programming and Online Learning & Positive Intervention Center Supervisor

2009 - 2010, Pattonville School District, Substitute Teacher; Student Teacher in Social Studies Department

Education/Certifications:

2016, Educational Specialist in School Administration - Lindenwood University, St. Charles, MO

2013, Masters of Arts in Teaching - Lindenwood University, St. Charles, MO

2008, Bachelors of Science in Liberal Studies - Excelsior College, Albany, NY

2005, Associate of Science in Communications - Community College of the Air Force, Maxwell AFB, AL