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by

Selina H. Chapa

May 2012

WHAT SCHOOL LEADERS NEED TO KNOW ABOUT TEACHER RETENTION

A Doctoral Thesis Presented to the  
Faculty of the College of Education  
University of Houston

In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Education  
in Professional Leadership

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## DEDICATION

This thesis is dedicated to my devoted family for all of their love and support.

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### Abstract

Teacher retention has been an issue of national concern for decades (Moir, 2009; Veenman, 1984). According to the National Center for Education Statistics (NCES), 49.4 million students attending public schools are educated by 3.2 million teachers (Feistritzer, 2011). Current research suggests that an estimated 20% to 33% of new teachers will continue to leave the profession within the first three years of their career. Even more alarming, these studies concluded that within five years of entering the profession, close to 50% of teachers in urban districts change careers (Garcia, Slate, & Delgado, 2009; National Education Association, 2008). As a result, this has contributed to recruitment efforts that have evolved to include an emphasis on teacher retention. Replacement of teachers disrupts instruction and impacts the student learning environment. Reform initiatives set forth by state and federal mandates hold districts and campuses accountable for student performance. Districts must also ensure that teachers meet "highly qualified" requirements to comply with the No Child Let Behind Act of 2002. The purpose of the study was to determine if a relationship existed between various certification paths and teacher retention. Quantitative research techniques examined the extent of the relationship between retention rates and various teacher certification paths. Descriptive statistics were used to establish the effects of each contribution. Two statistical models were executed to obtain the statistical measures: Pearson chi-square test and order logistic regression. The results revealed that former student teachers had a significant effect on retention if employed in the same district.

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## **CHAPTER ONE**

### **INTRODUCTION**

Human resource administrators directly influence the educational opportunities students are provided every day. The roles of members of this department are no longer limited to that of only recruiting and hiring certified employees. Responsibilities for these administrators now extend to include methods to retain high quality teachers. With this responsibility, districts benefit from investigating teacher retention trends associated with particular certification paths. Investigating existing data to discover factors that affect teacher retention promotes an in-depth search to the fundamental challenge of retaining teachers.

Federal and state accountability measures, in addition to financial costs associated with recruitment initiatives, have served as the driving force during this transformation. The impact of teacher turnover rates directly affects education in three primary areas: “a) student academic performance, b) accountability, and c) financial costs” (Garcia et al., 2009). With high stakes involved, human resource administrators are faced with the need to establish a focused strategic plan to retain teachers.

The urgency to retain highly qualified teachers has increased over time. The No Child Left Behind (NCLB) Act, signed into law by President George W. Bush in January, 2002, is one of the most significant reform initiatives that contributed to this movement. The ultimate goal of this act is to obtain grade level performance in the areas of reading and math for all students by 2014. As a result of NCLB, states are expected to develop and implement accountability systems. The systems must be designed to evaluate district and campus achievement abilities. Student testing has served as the measure used to

monitor and comply with the NCLB law. Levels of proficiency for students are based on different subgroups outlined in the law. The subgroups include race, income, and other groupings. Additional measures were also set forth to monitor the annual performance for each student subgroup. This effort was initiated to determine if “Adequate Yearly Progress” (AYP) has been met by the campus and the district.

The impact of NCLB also influenced decisions pertaining to potential teacher candidates. The law required all teachers of core subject areas to be “highly qualified” (HQ) by the end of the 2005-2006 school year. To meet HQ regulations, teachers must be certified to teach in the grade level or content area that they teaching. Teachers could either pass a content exam related to that subject or grade level being taught or possess a minimum of 24 university/college credit hours in the content area to be considered HQ.

Districts receiving Title I funds that fail to meet the HQ standards risk losing substantial federal funding. The Elementary and Secondary Education Act (ESEA), Title I, Part A, provides districts with high student populations in low income settings with financial assistance. The effort is to ensure that all students are able to meet state academic standards.

For human resource administrators wanting to comply with NCLB requirements, attention to hiring HQ teachers became a serious focus. However, the task to hire teachers meeting HQ standards supports only minimal expectations in the quest to meet the needs of students. In order to meet accountability expectations for on-grade level performance, teacher retention has become the priority. Districts are now reconsidering how their financial allocations are distributed to departments. The current movement includes a focus on supporting and retaining new teacher hires. If successful, the new

focus would result in decreased expenditures on recruitment efforts. This paradigm shift has affected the roles of human resource administrators. Not only are they challenged to recruit teachers who meet HQ standards, but they are also charged with identifying conditions that affect their retention.

Recruitment efforts consume a substantial amount of money on an annual basis. In 2007, the National Commission on Teaching and America's Future reported an estimated cost of \$7.2 billion that is spent each year nationally on teacher turnover (Carroll & Foster, 2010; Hershberg & Robertson-Kraft, 2009). The financial implications to maintain this reactive practice includes the use of funds needed for day-to-day expenses that support student instruction (Barnes, Crowe, & Schaefer, 2007). Evolving to a practice that is proactive and one that supports new teachers will enhance student achievement. An investment in new hire support systems requires the emphasis to be on teacher retention instead of recruitment—a proactive strategy.

Educational trends to recruit and retain the best teachers have become a priority from the national level to the local level. During the late 1960s and throughout the 1970s, a large number of individuals infiltrated the teaching profession, most of which were people referred to as “Baby Boomers,” individuals born between 1944-1964 (Carroll & Foster, 2010; NCEI, 2005). With an abundance of teachers at that time, recruiting plans, as early as 1987, identified basic reasons for recruitment goals:

- To increase the pool of job applicants with minimum cost;
- To meet the organization's legal and social obligations regarding the demographic composition of its workforce; and
- To help increase the success rate of the selection process by reducing the



number of applicants who are either poorly qualified or have the wrong skills (as cited by Citarelli, 2006, p. 9).

However, as a result of the “Baby Boomer” era, the nation is faced with losing a substantial amount of veteran teachers to retirement. By 2004, close to 1.8 million “Baby Boomers” accounted for approximately 54% of the teacher population (Carroll & Foster, 2010).

The need for more formal recruiting strategies focusing on teacher retention was acknowledged with the threat of the anticipated number of teacher retirements. In 2006, Keating introduced four strategies to consider as part of the recruitment process. The development of a formal recruitment plan was the first step introduced. This action would require more intentional actions that would equate to specific desired outcomes. Another strategy identified was to differentiate the district in positive terms. Promoting the district would include highlighting certain district attributes that could attract additional applicants. The third strategy listed by Keating is to create and maintain a “teacher-friendly work environment.” Perna (2007) refers to this strategy as “Building the Relationship” through repeated and meaningful interaction. The final strategy was one utilized by numerous districts surrounding the Houston area, a “grow-your-own” plan (Keating, 2006). This practice has assisted districts in producing internal applicants that demonstrate teacher potential. Although common recruitment themes were evident in the research, additional recommendations were warranted.

In 2007, Barnes, Crowe and Schaefer provided a national study of five school districts outlining the cost of teacher turnover. The results of the study provided a detailed analysis cost breakdown associated with teacher turnover. This study identified

five recommendations for districts to consider as interventions in initiating change to further help with the retention of teachers:

- Invest in new teacher support and development;
- Target comprehensive retention strategies to at-risk schools;
- Track teacher turnover and its costs annually;
- Amend NCLB to hold school leaders accountable for turnover and its costs; and
- Upgrade district data systems (Barnes, Crowe, & Schaefer, 2007).

As the first recommendation was to focus on teacher support and teacher training, the primary focus of districts moved from recruiting strategies to teacher support and retention. Thus, in the competitive work force and with efforts to attract HQ teachers, innovative thinking and strategic planning were required to hire and retain teachers. Movements to entice students to select the educational field as careers have recently been initiated at the state and national levels. In order to meet the demands of districts and to strengthen teacher quality, current hiring practices have transformed to reflect more meaningful efforts. The traditional hiring system, which had been in place for decades, was based on a workforce of young females as the targeted group (Alliance for Excellent Education, 2008). Changing the image of the profession would require interventions at every level (Kolpack, 2011). Strategic planning begins with the hiring of high quality teachers.

As a nation, recognition has been placed on the need to attract strong and committed professionals in the field of education. This was demonstrated by the “Make Your Mark” campaign that was launched by the Mid-West. This initiative was inclusive

of three states, North Dakota, South Dakota, and Minnesota, who are preparing to lose almost 50% of their teachers in the next decade. The 30-second television and internet ads were part of a 10-year, \$40 million investment designed to encourage people to teach. The movement was initiated by the Network for Excellence in Teaching with the goal to improve teacher recruitment, training, and support (Kolpack, 2011).

The commitment to strengthening the teaching profession can be further demonstrated by the current president. The Obama administration is committed to supporting teacher preparation, induction initiatives, professional development, and teacher retention with a focus on areas with high at-risk student populations (Duncan, 2010). The emphasis for these initiatives is not limited to recruitment, but it extends to factors that researchers have indicated to be critical indicators that impact teacher retention (Moir, 1990; Veenman, 1984).

### **Statement of the Problem**

Within the past few decades, a shift has evolved from the recruitment and hiring of teachers to teacher retention. The primary question identified is, “Why are so many beginning teachers who enter the teaching profession because they have a real desire to make a positive impact in the lives of children leaving their jobs?” (Alliance for Excellent Education, 2004, p. 12).

According to Carroll and Foster (2010), previous generations remained in the teaching profession longer than those of today. It has been suggested that within the first three years of teaching experience, 20% of all new teachers will leave the profession,

with an alarming 50% leaving the profession within the first five years of their careers (Kent & Simpson, 2009). In addition, the teacher turnover rate is notably higher in low-income areas with environments that are more challenging. In most instances, this type of setting reflects a teacher resignation rate that exceeds student dropout rates (Alliance for Excellent Education, 2008). The challenge to retain teachers in order to increase experience levels and performance is faced by most districts. The cycle of continuing to replace teachers with recent college graduates with disregard for the impact of experience affects student performance. Furthermore, costs associated with recruitment efforts place financial emphasis on teacher recruitment. Instead, some of these funds could be redistributed to address student needs by funding additional classroom expenditures.

The challenge is to identify factors beyond district influences that contribute to teacher retention. Continued research to evaluate new teacher retention is necessary. Decisions based on the results of this study will aid in the development of strategic hiring practice. Human resource administrators will have the potential to base recruiting efforts on certification routes that demonstrate teacher longevity.

### **Purpose of the Study**

Teachers are the most important element in a student's educational career (Moir, 2009). All individuals have experienced some form of interaction with both exceptional and inadequate or marginal teachers. The teacher's competence level directly affects the level of success a student experiences. Therefore, one can conclude that teacher effectiveness is significant in student success. Most high quality teachers are developed over time and have the potential to produce successful student performance. Students

that are continuously placed with first-year teachers can potentially demonstrate decreased or minimal performance over time. Achievement gaps become evident and are more detrimental as the years progress. Unfortunately, schools failing to meet minimum state and federal standards rarely decrease the student achievement gap since the focus remains on rebuilding their staff. The reality is that the teaching quality gap is never closed (Barnes, Crowe, & Schaefer, 2007). Teacher effectiveness is more likely to be attained with experience as skill sets and abilities are improved with experience. Failing to retain teachers over time prevents students from having professionals that are constant, experienced, and highly qualified (Pytel, 2007).

Recognizing the influence teachers have on student achievement and accountability, in addition to the cost factors associated with teacher retention and recruitment, warrants further examination. Questions pertaining to the effectiveness of current district practices surfaced. It became evident that identifying factors that impact teacher retention based on specific recruitment groups needed to be examined. The results could potentially strengthen initiatives for teacher retention through such practices as district mentorship programs. This study sought to identify a possible correlation between teachers groups that demonstrated longevity in the district and certification routes.

The main objective of this study was to examine what factors impacted teacher retention in an urban school district in Texas. Retention rates of new teachers hired during the 2008-2009 academic year were analyzed to identify possible trends that surfaced over a three-year time frame. New hire groups were formulated to include former district student teachers, student teachers from other districts, alternative certified

teachers, teachers graduating from a traditional university-based program, in-state certified teachers, and out-of-state certified teachers. Quantitative data was used to conduct the analysis by the researcher. Results of the research could serve as a basic foundation that district leaders could reference as actions pertaining to teacher retention efforts are evaluated and adjusted. Specifically, the defined outcomes that impact teacher retention could be adopted and used as best practice techniques for recruiting purposes. The implications of the study could serve as a reference tool that provides considerations based on possible district needs.

The secondary purpose of this study was to share research outcomes with school districts demonstrating the same needs as the study district. All school districts in the United States are held to state and federal accountability standards. Considering the required accountability measures and their financial implications, results from this research could support districts by providing a focus to consider what is aligned across disciplines. Predetermined conditions that potentially impact teacher retention, as defined by this research, could theoretically be applied in any district during the development of strategic recruitment plans and mentor program initiatives.

### **Research Questions**

This study investigated the teacher retention rates of an urban school district. This study used archival data to determine teacher retention rates according to specific certification routes. The data were extracted based on teachers hired during the 2008-2009 academic school year. The organization of the research was guided by the following research questions.

Research Question One: Is there a difference in teacher retention between new hires that were former student teachers and other new teacher hires?

Research Question Two: Do new hires from alternative certification programs demonstrate a difference in teacher retention when compared to graduates from a university-based program?

Research Question Three: Are there differences in teacher retention between new teacher hires from Texas universities and new teacher hires from out-of-state universities?

### **Significance of the Study**

Current research suggests that teacher attrition will continue to increase. According to Alliance for Excellent Education (2008), a study conducted in Tennessee proposes that effective teachers refrain from being in schools with high poverty levels. As a result, urban school settings exhibit lower levels of teacher retention. The review of literature echoes the same message; an alarming number of teachers will be needed to replace current educators.

This research has the potential to support teacher attrition issues faced by school districts and enhance current research on retention. This study included new teacher hires in an urban district in Texas. Findings in this study have the capacity to identify groups of new hires, as identified through certification routes, which have demonstrated retention over a three-year period. Human resource administrators with similar demographics will be able to reference research results as annual recruiting plans are developed or adjusted. District leaders will have access to results demonstrated by the study district. As district needs are identified, financial allocations may have a greater focus on teacher support

initiatives to retain teachers instead of an emphasis on recruitment. Districts may be prompted to assess the cost effectiveness of current initiatives as future plans are made. Whether considering certification paths or new teacher support mechanisms, this study has the capacity to provide reference material pertaining to teachers that demonstrate longevity in an urban school district.

### **Overview of Methodology**

The design of this study included a quantitative method for data retrieval. Archival information was used to obtain teacher retention data based on 738 new teachers hired in the district during the 2008-2009 academic school year. Participants were grouped according to the following teacher certification routes: student teaching in the district, student teaching in other districts, traditional university-based programs, alternative certification programs, in-state certification, and out-of-state certification. Individual teacher retention information may overlap and impact results of more than one studied subgroup. In the study, the data analysis was performed using the descriptive statistics method. The distribution included a comprehensive description of the descriptive statistics, degree of correlation, and coefficients. Two forms of analyses were performed to determine the following outcomes: 1) if a relationship was evident between the variables of interest and 2) the degree of association among the variables. The Statistical Package for the Social Sciences (SPSS) was used to perform the data analysis.

### **Organization of the Study**

The contents of the study are divided into five chapters. Each chapter is dedicated to the process followed in the development of the research. Each of the chapter's contents highlights information that leads to the significance of teacher retention. The



culmination of this study concludes with research findings and recommendations that promote continued professional investigation to support teacher retention.

Chapter one introduces the rationale and need for this study. Reflection on current hiring practices prompted the direction of the study. In an effort to staff classrooms with high quality teachers and retain them over time, the researcher suggests that merely replacing teachers as vacancies develop is not sufficient. Teacher retention is necessary. Keeping teachers in the classrooms is the motivation leading to the four central questions that are identified in this chapter.

The review of literature on certification routes and teacher retention is found in chapter two. The researcher collected and summarized studies published by practitioners and theorists in this chapter. This section elaborates on the history of certification programs. Furthermore, it includes reoccurring factors identified by leading researchers that have contributed to teacher decisions about the profession as a career.

Chapter three contains the methodology used for this study. District demographics and participant information are presented. Procedures used in the data collection process are explained in detail. The statistical methods used for data interpretation are shared. Limitations of the study are also introduced for consideration.

Data results are examined in chapter four. Findings in this chapter are categorized in multiple groups for analysis. In terms of teacher retention rates, tables are utilized to demonstrate visual representations of the findings. This chapter presents conclusions based on teacher retention results using multiple variables.

Chapter five is the final section of the document. Implications of this research are reported and summarized. This chapter also includes recommendations for future studies that address teacher retention.

### **Definition of Terms**

*Alternative certification* is a different method used to obtain a teaching certificate. Professionals choosing this method possess a bachelor's degree and did not graduate through the College of Education.

*Alternative hypothesis* is a statistical theory that suggests a difference or relationship is present between variables.

*At-risk student* refers to a student that struggles academically and exhibits the potential to drop out of school.

*Descriptive statistics* is the process and measures used to describe quantitative data.

*Economically disadvantaged* refers to a low socioeconomic setting in which eligibility is determined partly by the number of students eligible for free or reduced price lunch. A percentage is calculated by dividing the number of students qualifying for free or reduced price lunch by the total number of students.

*Highly qualified (HQ)*, as a result of the No Child Left Behind Act (2002), is the term used to refer to teachers certified in the grade level or possessing a minimum of 24 university/college credit hours in the content area they are teaching.

*Limited English proficient (LEP)* refers to students exposed to another language that demonstrate the need to develop English acquisition.

*Null hypothesis* is a statistical analysis that suggests no difference or no relationship between variables.

*Teacher attrition* describes teachers that leave the profession or transfer to another district.

*Teacher retention* describes active teachers in the field that elect to remain in the profession. For purposes of this study, it is used particularly to address teachers that elect to remain in the district for three consecutive years.

*Title I* is a term used to describe schools and districts with high levels of poverty. Students in these environments are educationally disadvantaged or are at-risk of failing to meet state standards.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

In the past, traditional university-based programs almost exclusively prepared students for teacher certification. The establishment of “normal schools” was created to train potential teacher candidates. Initially, these schools offered a two-year program until the 20<sup>th</sup> century. Courses were extended to consist of a minimum of four years of undergraduate studies. The first normal school surfaced in the United States in 1685 in Lexington, Massachusetts. Over time, most of the public normal schools became known as teacher colleges. By the 1950s, the education of future teachers had evolved to departments of education within most universities (Bohan & Null, 2007).

Institutions of higher education have been primarily responsible for producing teachers of high caliber. However, in an effort to meet the teacher demands, especially in critical needs areas, alternative certification programs (ACPs) flourished during the 1980s. Individuals considering the profession were provided with another route to obtain teacher certification. This movement was faced with proponents and opponents. The proponents of the traditional programs believe that becoming a teacher required extensive training over time and supervised experience in the classroom. Because new teachers were needed to replace those retiring, resigning to move to other districts, or simply leaving the profession, and the number needed exceeded the number of teachers produced by university-based programs, ACPs offered districts choices in obtaining certified teachers.

Human resource administrators make new teacher selections in collaboration with campus principals. In an effort to prevent a vicious cycle of merely replacing seasoned

teachers with new ones, multiple studies have been conducted to examine factors contributing to teacher retention. Researchers have identified and reported outcomes primarily addressing beginning teachers' needs. One of the most significant contributions was a study conducted by Simon Veenman in 1984. The perceived problems of teachers entering the profession were identified through a collection and analysis of international studies. Although numerous reasons why teachers leave the profession have been identified in the past, more recent survey results conducted by the National Center for Educational Statistics (NCES) suggest that teachers are entering our classrooms underprepared, overwhelmed, and inadequately supported (Kent & Simpson, 2009). Furthermore, research suggests that the most common reasons for teacher attrition are lack of professional support, inadequate working conditions, poor administrators, and low salaries (Borman & Dowling, 2008; NCTAF, 2003).

The essential elements of the review of related literature include a) certification options for teachers, b) The Veenman Study, and c) four reoccurring themes found within the research: professional support, teaching conditions, leadership, and salary trends. For the purpose of this study, a comprehensive description of each area is explained in detail.

### **University-based Programs**

Normal schools were first established in France. These colleges were specifically created to educate and train future teachers. In the late 1800s and early 1900s, normal schools primarily served as the only route for women in the Southwest to obtain a higher education. Although the first normal school was established in the United States in 1685, the first normal school in the state of Texas was not created until 1879. Sam Houston State Normal Institute was the first these institutions (Bohan & Null, 2007).

Traditional university-based programs served as the single path necessary to obtain teacher certification. Prior to the 1980s, universities assumed the primary responsibility of developing high quality teachers for our nation's classrooms. According to Feistritzer (2011), during that time almost 97% of those beginning the profession entered through a traditional university-based program. Undergraduates included 88% of the new teachers. An additional 9% were graduate students in the universities.

Although university requirements revolve around state and national mandates, most are similar in nature. Teachers in Texas are certified by the State Board for Educator Certification (SBEC). In this state, there are five basic requirements an individual must meet to become a certified teacher. These requirements include: (1) possess a bachelor's degree, (2) complete an educator preparation program, (3) meet passing standards on certification exams, (4) submit a state application, and (5) be fingerprinted as part of a national criminal background check (TEA, 2011). Individuals seeking employment as a teacher have been able to do so as teachers retire, resign from the district, or simply leave the profession for other professions. In Texas, the teacher turnover rate was listed in the Academic Excellence Indicator System (AEIS) report as 15.2% in 2008, 14.7% in 2009, and 11.8% in 2010 (TEA, 2010). Although districts may have been able to meet the demands to fill most teacher vacancies, filling content areas such as secondary math, secondary science, and special education continue to pose a consistent challenge.

In addition to the basic requirements, there are also specific steps that must be followed if one is seeking teacher certification in the state of Texas. High school

graduates aspiring to become a teacher typically begin the process by deciding on the specific grade level and subject areas they are interested in teaching. A selection of an approved Texas university is necessary as the second step of the process. Next, a university screening is conducted to determine if entry requirements have been met by the potential student. The fourth step of the process includes the development of a certification plan. The plan is created and completed according to specific university requirements. As part of the plan, meeting testing requirements to demonstrate content proficiency and pedagogical skill sets are required. The Texas Higher Education Assessment Exam (THEA) is used to demonstrate basic skills prior to entering the College of Education. The Exam for the Certification of Educators in Texas (ExCET) and the Texas Exam for Educator Standards (TExES) are used as tools to measure subject area competence upon completion of coursework. The final step is a student teaching experience or teaching internship as part of the program requirement (TEA, 2010). Student teaching is an experience that is typically completed during the last semester prior to graduation. Students are expected to be supervised by a certified teacher. As part of the process, students are given the flexibility to select a district of choice to satisfy this requirement. Working in collaboration with an experienced teacher, student teachers are introduced to the classroom setting using a gradual release process. An explicit plan that includes a minimum of two weeks in full control of a classroom must be successfully demonstrated. The students are evaluated and must be recommended by the university for certification. Upon successful completion of these steps, in addition to all basic requirements, Texas certification is granted.

Teacher candidates also transition across state lines. Teachers possessing an out-of-state license could be issued a Texas teaching certificate if certain criteria are met. In 2001, House Bill 1721 was passed by the 77<sup>th</sup> Texas Legislature that granted the SBEC the authority to issue teaching certificates to candidates that hold certification in another state or country and who have passed certification exams “similar to and at least as rigorous as” the Texas exams (TEA, 2010, ¶2).

Although in-state and out-of-state universities were able to meet the districts’ demands in the past, the challenge to continue producing teachers to replace those that resigned from the district, retired, or changed professions became increasingly difficult. Consequently, states faced with a high number of teacher needs began to explore alternative paths to acquire high quality teachers certified in the most needed areas.

### **Alternative Certification Programs**

By definition, alternative teacher certification has been used when referencing other avenues in becoming licensed to teach (NCEI, 2005). In Texas, California, and New Jersey, aggressive efforts to become a certified teacher through an alternative certification program (ACP) have been implemented since the mid 1980s. Sixty-three alternative routes produce roughly 18% of the new hires in the three states. In New Jersey, approximately 24% of the new teachers move into the profession through an alternative path. Likewise, Texas was no exception. Almost half of the new hires obtained their teaching certification from one of the state’s 75 ACPs (NCEI, 2005).

In Texas, the first teacher ACP was implemented in 1985 in the Houston Independent School District (HISD). HISD justified the program by citing the



shortage found in teacher projections for the year. The district's projections demonstrated the shortage with the number of anticipated teacher vacancies as compared to the number of teachers available for hire. In 1989, Texas legislation removed the shortage requirement to establish an ACP. This resulted in the creation of 75 ACPs throughout the state (NCEI, 2005).

Alternative programs generally exist if there are teacher vacancies that need to be filled. Feistritz (2009) suggested this is the reason why most of these programs are located in urban and remote rural populations in the Southern, Western, and Eastern parts of the United States. Furthermore, this is also the reason why these programs produce more math, science, and special education teachers; they are the teachers in "critical need." What began as a method to address the teacher shortage in the 1980s became a movement that produces high quality teachers (NCEI, 2005).

According to the Federal Schools and Staffing Survey, of the 2003-2004 academic year, only 57% of the new teachers hired were from traditional university-based programs. In addition, it was reported that an estimated 40% of undergraduates that began in the field of education refrained from entering the profession. The U.S. Department of Education's Baccalaureate and Beyond Longitudinal Study concluded that in 2001, only 33.5% of education majors go directly into teaching (NCES, 2001). Consequently, alternatives became necessary to supply the districts with certified teachers to meet their demands.

In 1983, only eight states conveyed having any kind of alternative route to becoming a teacher. Later, the NCEI (2005) reported that 47 states, in addition to the District of Columbia, confirmed the implementation of 122 alternative routes to teacher

certification by 619 programs throughout the country. In Texas, if a potential candidate holds a bachelor's degree or higher, this alternative route could be an option to becoming a certified teacher. According to the TEA (2010), prior to becoming a teacher, there are general steps to follow for alternative certification:

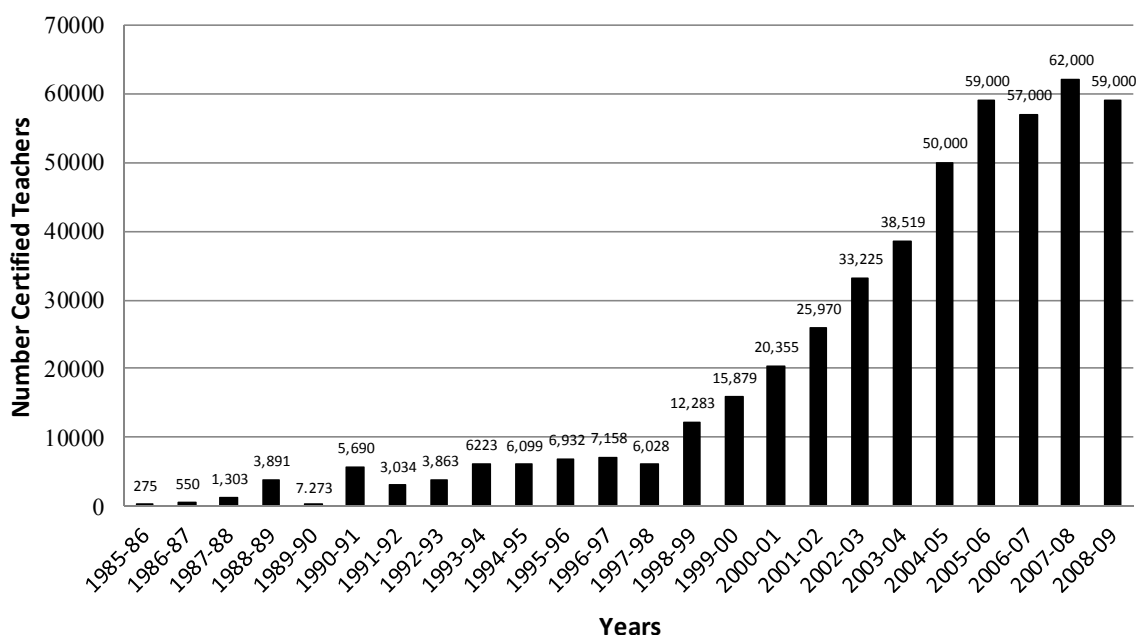
1. Decide what you would like to teach.
2. Select an approved Texas ACP.
3. Meet the screening criteria of the program.
4. Develop a certification plan with your program.
5. Obtain a teaching position.
6. Apply for a probationary certificate.
7. Complete all requirements.

In addition to the steps listed, ACP candidates are required to conduct 30 hours of classroom observation. Of the required observation, 15 of those hours must include the opportunity to work with students under the supervision of a certified teacher. Once hired by a district, a one-year internship as the teacher of record is required unless the candidate chooses a semester of clinical teaching. Within the first year, ACPs must provide ongoing support and professional development, ensure participation of the district's mentor program, and conduct observations prior to recommending the student for certification. Probationary certification may be held for up to three years under this program. However, ACP interns must successfully meet all the requirements and be recommended for a standard certification prior to year three of probationary status to avoid disruption in employment.

An estimated 250,000 individuals have become licensed through an ACP since its inception in the 1980s, with the majority occurring within the past decade. Figure 1 illustrates the increased numbers of teachers certified through alternative certification routes (Feistritzer, 2011).

Figure 1

*Number of Teachers Certified Through Alternate Routes, 1985-2009*



*Source:* Feistritzer, 2011

As illustrated, the number of teachers obtaining certification through this route has increased in the last decade. Each year, approximately 35,000 teachers enter the teaching profession through an ACP. The National Center for Education Information (2005; 2009) suggested that one third of new teachers hired obtained their certification in this manner.

Three critical reports from the Federal Institute of Education Sciences suggested rather startling findings. The implication of one study was that the path selected to

become a teacher had no correlation to the production of effective teachers (Constantine et al., 2009). Another report concluded that mentoring and induction programs failed to improve student achievement or retain teachers (Glazerman et al., 2008). There have been other numerous studies attempting to identify factors leading to teacher retention over the years. The goal is to understand what elements influence teacher retention.

### **The Veenman Study**

Possibly the most cited study addressing teacher retention was the Veenman Study of 1984. To obtain a comprehensive analysis of the perceived problems of beginning teachers, Veenman conducted an international literature search that included 83 studies. Although studies conducted prior to 1960 were conducted, Veenman refrained from including them in his research. From his perspective, the research conducted prior to that time seemed less significant in terms of movements in the educational systems, job placement opportunities, and the labor market (Veenman, 1984). Of the 83 studies used in his research, 55 of them were from the United States, including one from Puerto Rico. The additional ones included were from the United Kingdom and Europe.

Veenman (1984) introduced the study by defining the transition of new teachers moving from a learning environment to that of everyday life in the classroom as “reality shock.” He described this phenomenon as what teachers faced as they transitioned from theory to practice. This was a movement from an ideal setting, learned during their course of studies in a college environment, to the application of real life experiences in the classroom. There are numerous challenges that low-performing students demonstrate. Unfortunately, most beginning teachers are not provided the professional support,

feedback, or training needed to help these students succeed. “Reality shock” was used to describe the harsh reality of classroom life. Understandably, the triads to cultivate learning, formulate connections, and obtain content area links between universities and the schools are necessary for new teacher success and retention (Grossman, Martin, Place & Valencia, 2009). Consequently, inadequate attention to bridging the gaps associated within each structure yield negative results. Furthermore, according to the Alliance for Excellent Education (2004), failure to create a larger community of practice results in new teachers more likely to leave the teaching profession. A community of practice has included collaborative efforts that include both internal and external stakeholders.

The Veenman Study (1984) identified 15 of the most serious problems selected by beginning teachers in each of the 83 analyzed studies. The problems were categorized and ranked in order according to frequency. Table 1 illustrates the results of the research.

Table 1

*The 24 Most Frequently Perceived Problems of Beginning Teachers*

Rank Order	Problem
1	Classroom discipline
2	Motivating students
3	Dealing with individual differences
4.5	Assessing students' work
4.5	Relations with parents
6.5	Organization of class work
6.5	Insufficient materials and supplies

Table 1 (continued)

*The 24 Most Frequently Perceived Problems of Beginning Teachers*

Rank Order	Problem
8	Dealing with problems of individual students
9	Heavy teaching load resulting in insufficient preparation time
10	Relations with colleagues
11	Planning of lessons and school days
12	Effective use of different teaching methods
13	Awareness of school policies and rules
14	Determining learning level of students
16	Knowledge of subject matter
16	Burden of clerical work
16	Relations with principals/administrators
18	Inadequate school equipment
19	Dealing with slow learners
20	Dealing with students of different cultures and deprived backgrounds
21	Effective use of textbooks and curriculum guides
22	Lack of spare time
23	Inadequate guidance and support
24	Large class size

The Veenman Study demonstrated multiple problems associated with first-year teacher retention. However, Veenman suggested that not all the problems identified in

the research were exclusive to beginning teachers. The link between the study results and beginning teachers is not limited to those entering the teaching profession. Similarly, teachers with experience revealed the same results.

Since the Veenman study, many researchers have identified similar factors leading to teacher attrition. Although factors identified by Veenman have been found in similar studies, most have been grouped and categorized in general terms according to findings with related outcomes.

### **Professional Support**

The movement from theory to practice can prove to be one of the most challenging experiences for a teacher. This becomes increasingly difficult if the new teacher is placed in a setting with high poverty levels and low student academic achievement. One explanation noted by Zeichner (2003) included the lack of preparation of teachers to work with students of different cultural backgrounds. Nevertheless, beginning teachers in any setting experience various levels of concern as the progress through this new practice. Fuller and Brown (1975) constructed a theory pertaining to new teacher development. The theory focused on perceived new teacher concerns that changed predictably over time.

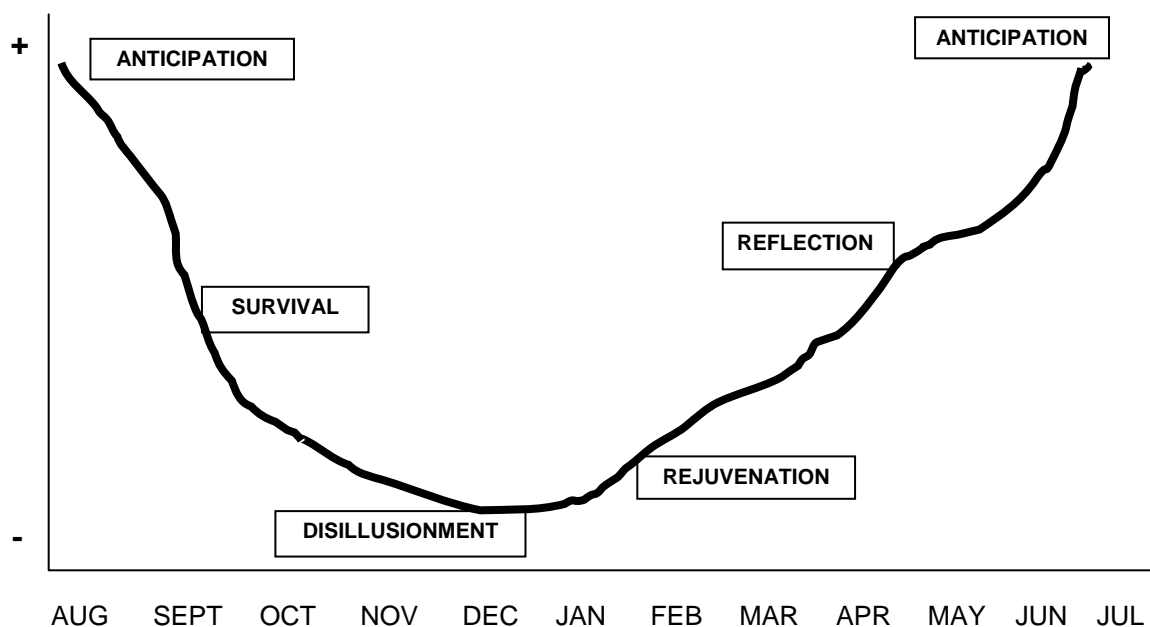
To effectively support the needs of the teachers beginning their professional careers in the field of education, both administrators and other staff members need to have a thorough understanding of the “teaching phases.” Fuller and Brown (1975) provided a description of the phases of concern that are reflective of new teachers. The first stage or phase was associated with what was described as “self” and involves personal survival. The concerns revolve around personal influences as teachers may

question their selection of the profession and expected outcomes. The second stage deals specifically with teaching concerns and is known as “task.” The level of proficiency, methods, and instructional delivery become the primary concerns for beginning teachers. Questions about the teaching practice itself surface at a minimal level. Finally, “impact” or the third phase of concern was related to student needs. These concerns emerge as teachers seek better ways to teach and focus on student learning and student needs. Likewise, multiple researchers have identified assistance with instruction and curriculum as a perceived need among first-year teachers (Brewster & Railsback, 2001; Ganser, 1999; Gold, 1996; Gratch, 2000; Witaker, 2000). Each of the stages is a natural occurrence of a teacher’s first year that warrants understanding to effectively support novice teachers.

Similar to Freeman, Moir (1990) also identified stages that first-year teachers experience. After assisting nearly 1,500 new teachers, almost predictably each phase was evident during their first year of teaching, although not every new teacher experienced the exact sequence as indicated in Figure 2. The depiction below includes the phases a novice teacher experiences over the course of their first year.



Figure 2

*Phases of First Year Teaching: Attitudes Toward Teaching*

*Source:* Moir, 1990

New teachers begin the year in an anticipation phase. They are excited and eager to begin their career. They quickly move to a survival phase and struggle to simply “survive” in the classroom on a daily basis. Teacher work days and holidays become motivators when faced with the daily struggles of survival. The disillusionment phase manifests as teachers begin to question themselves. They become discouraged and doubt whether the choice to teach was a good one. During the month of January, teachers exhibit a form of rejuvenation. Following the winter holidays, teachers are able to see themselves with the ability to complete their first year. The final phase, reflection, demonstrated by new teachers emerges at the end of the year. The teachers reflect on the year’s experiences to make future decisions. During the months of June and July, the teachers begin to plan and prepare for the upcoming year and cycle back to the

anticipation phase. The purpose for learning about each phase is to realize that the experiences of new teachers are not felt in isolation. With the knowledge that other new teachers are experiencing similar feelings, new teachers feel they are not alone. New levels of support can be initiated by sharing common concerns and initiating conversations pertaining to related attitudes by administrators. Understanding the phases provides a basis for leaders to design support mechanisms for the new teachers in order to promote a positive experience.

### **Teaching Conditions**

The nation will need to replace more than 50% of the teacher workforce over the next seven years. This is equivalent to 1.5 million new teachers in our classrooms (Moir, 2010). If a real commitment to ensuring a quality education for all students is a priority, then an emphasis must be made at the national, state, and local levels to advance the professionalism of teaching (National Education Association, 2009). To attain this goal, attention must be made to teaching conditions within the school setting.

Supportive school environments are necessary to retain teachers. However, complaints about workloads and lack of teacher support have been reported by previous studies (Connell, 2007; Korthagen, 2004; Ng & Peter, 2009). According to Moir (2009), teaching environments where the professionals are trusted, appreciated, and where time is provided for collaborative efforts promote teacher success. These conditions were identified from survey responses obtained from 10 different states with almost 8,000 new teachers. The implications are significant; school environments impact teacher outcomes. The concept essential for districts to comprehend can be simply stated: Hire the

right people, keep them in the classrooms, and maintain their happiness (Barrick & Zimmerman, 2005). However, in order to obtain work satisfaction, one must also consider the physical aspects of the working environment. In a study conducted by Buchanan (2009), former teachers were interviewed and asked to comment on teaching as it compared to their current job. Feedback included statements such as, “incredibly old dilapidated classrooms, no air-conditioning, no blinds, blackboards not fixed to the wall, on stands, falling apart” (Buchanan, 2009, p. 207). In some situations, the respondents shared that the classrooms were in very poor conditions. The classrooms were hot in the summer and cold in the winter. Supporting the relevance of working conditions in retaining teachers was also mentioned in a NEA report published in 2008. The report cited poor working conditions as a reason for teachers choosing to leave the profession. Similarly, it was also noted that there are situations in classrooms that lacked adequate resources (e.g., computers).

As part of the working conditions, researchers have also included teacher autonomy as a factor to consider. A critical component in the retention of teachers is a teacher’s sense of self-efficacy and successful outcomes with students (Alliance for Excellent Education, 2008). The concept pertains to professional respect and the ability to maintain some control in the decision-making process. The opportunity to influence decisions is important in any profession. Research on teacher attrition has demonstrated various factors that influence teacher decisions. The involvement teachers possess or do not possess in making decisions has been identified as one of those factors (Ingersoll, 2003; Weiss, 1999).

## **Leadership**

“Support for new teachers can transform our nation’s schools” (Moir, 2009, p. 14). There are undoubtedly challenges faced by new teachers, especially those working with greater student needs. Therefore, the degree of principal support or non-support has the potential to impact teachers’ decisions and retention rates. According to Alliance for Excellent Education (2004), new hires experiencing lack of administrative support, feedback, and ongoing training to meet the educational needs of the students demonstrate common results. The teachers become at-risk of leaving the profession. Thus, insufficient support from administrators has been identified as another condition that influences teachers’ decision to leave the profession (Ng & Peter, 2009).

Building relationships is a common method used by teachers to reach students. The relationships are built with frequent and meaningful contact. Equally important are the relationships established between district leaders, specifically campus principals, and their teachers. One key finding in the Project on the Next Generation of Teachers at the Harvard Graduate School of Education (2001) was that relationships and the culture of the school influences teacher retention at high levels (Johnson et al., 2001). Therefore, one can conclude the significant role and impact of administrators on novice teachers. Inman and Marlow (2004) suggest that campus leaders need to ensure that all teachers, especially those new to the profession, receive positive experiences such as having colleagues with a willingness to share ideas, plan, and solve problems. Building relationships promotes a safe environment based on collaborative efforts for professional growth.

Continued professional development is another element associated with administrative support. Administrators possess the ability to provide professional training to address specific teacher or campus needs. Professional learning opportunities, if offered on a regular basis, provide professional growth and promote continued development. Situations where seasoned teachers are paired with novice teachers encourage an educational community of balanced learning. Some research suggests that if teachers feel they are supported by their principals, they also perceive receiving support from their colleagues (Buchanan, 2009). A positive school culture has the potential to affect teacher retention. On the other hand, teachers could perceive themselves as isolated and even mocked if they are not supported by campus individuals (Inman & Marlow, 2004). Therefore, the researchers suggest that the role of the principal is powerful. Principals that model the level of support expected of campus staff yield positive results.

### **Salary Trends**

Assumptions are commonly made that teachers leave the profession as a result of low salaries. The subject of teacher compensation is complicated and includes varying opinions on its impact to hire and retain teachers. The level of significance that compensation plays differs according to the results of independent studies.

In 2005, the National Center for Educational Statistics found that only approximately 5% leave the profession for salary reasons. The results suggest that the link between salaries and teacher retention are marginally relevant. Additionally, other research suggests that a signing bonus had little influence on employment preference (Ingersoll, 2001; Winter & Melloy, 2005). According to a study conducted by Winter

and Melloy (2005), a 10% signing bonus obtained only a slight increase of teachers accepting jobs in challenging school settings. Likewise, Buchanan (2009) found similar results. This study supported the general premise that compensation was not the most important factor for teachers leaving the profession. However, it was noted by the researcher that salaries were associated with a limited level of professional esteem. Indirectly, the prestige of higher paying occupations could impact career selections. Higher paying jobs could potentially decrease the number of individuals considering teaching as a profession.

There are also other reports that suggest that salaries impact teacher retention on a broader scale. The NEA Report (2006) surmised that approximately 37% of teachers cited teacher salaries as the reason why they did not plan to teach until retirement. Likewise, special analysis of teacher mobility conveyed that 21.8% of the teachers leaving public schools reported salaries as a primary reason for leaving, according to the results from the National Center for Education Statistics (2005). Furthermore, there was also some indication linking increased new teacher quality to a school district with higher salaries in similar studies (Figlio, 2002; Manski, 1987).

In a study conducted by Inman and Marlow (2004), teacher responses were solicited to determine reasons for remaining in the teaching field. The results identified only one external factor contributing to this retention: salaries. Findings also concluded that 23% of all surveyed did not identify any external reasons for electing to remain in the classrooms.

Other research has suggested that salary, even though of importance, was not the leading factor for leaving the teaching profession (Buchanan, 2009; Connell, 2007).

This was evident as indicated by a Hanushek, Kain and Rivkin (1999) study. A comparison in teacher salaries and working conditions by region and community type such as urban, suburban, and rural was attempted in multiple variations. The researcher intended to determine if a link could be established between contributions of teacher salaries and working conditions to the lack of quality instruction.

The findings concluded that although urban and suburban districts may provide the same salary ranges, working conditions impeded the attraction of teachers to those districts. The implications were that in rural schools, where better working environments were evident, lower teacher salaries would not affect teacher recruitment. Better working conditions compensated for lower salaries (Hanushek, Kain, & Rivkin, 2007).

Limited research has been conducted on the influence of incentive programs offered to teachers. Bruno and Negrete (1983) found that extra pay was not effective in the recruitment and retention of classroom teachers, specifically in high poverty areas. However, there are contradicting results. According to Loeb and Page (2000), there is some evidence to suggest that schools have larger success rates in the recruitment of teachers through higher wages. Similarly, math and science teachers in North Carolina chose to remain employed in areas of poverty in exchange for a salary increase of \$1,800. This 2006 study, conducted by Clotfelter, Glennie, Ladd, and Vigdor, found financial incentives as a motivator for teacher retention. Clearly, evaluating the effectiveness of incentive programs is complicated and generates considerable debate.

Historically, research has demonstrated contradicting results pertaining to the

degree in which teacher salaries impact district selection or retention. The level of influence varies among studies when considering salaries, bonuses, and incentive-based programs. Consequently, the differing outcomes represent a complicated issue with multiple points of view.

### **Summary of Findings**

Whether teachers are retiring, resigning, or leaving the teaching profession, school organizations are faced with the issue of dealing with teacher attrition. Until the 1980s, university-based programs had historically produced a sufficient number of candidates to occupy the teacher vacancies (Feistritz, 2011). However, predictions of teacher shortages brought about changes in the field of education; the inception of ACPs emerged. Districts that had previously experienced challenges to fill certain teaching positions now had options for teacher selection. Urban districts with high at-risk students experienced the most benefits as a result of ACPs.

Although the movement garnered positive results, teacher attrition remained an area of concern. Francis Veenman is one of the primary researchers of factors associated with teacher retention. Although his study was conducted in 1984, he remains a researcher consistently referenced today. His collection and analysis of previous studies provided first-year teacher perceptions that served as a basis for fundamental awareness leading to concerns about teacher attrition. Since that time, researchers have conducted similar studies in an effort to identify factors that contribute to teacher attrition. In many cases, results suggested that factors such as professional support, teaching conditions, leadership support, and salaries influence decisions that teachers make about remaining in the profession.



Teachers have reiterated messages such as, “The district provided many valuable staff development sessions and trainings that helped me grow as a professional.” Others state that factors that made employment positive were, “support from co-workers and support from campus and district administrators.” These sentiments imply that the teachers have been provided with the necessary tools and support by a district to successfully continue as an educator. However, these were comments expressed by teachers that elected to resign from the study district in this study.

Staff changes disrupt instruction. In addition to the time and effort invested for the new teacher hires, human resource administrators recognize that the first step in deterring teacher attrition is to possess a thorough understanding of why teachers choose to remain in the profession. However, if campus conditions support research findings, district administrators may find it necessary to explore additional avenues. Specifically, they will want to determine if predetermined conditions influence teacher retention.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **Introduction**

The purpose of this study was to determine if a correlation existed between teacher certification routes and retention. Archival data obtained from the targeted district examined the new teacher hire pool using a three-year time frame. The study addressed the following research questions:

Research Question One: Is there a difference in teacher retention between new hires that were former student teachers and other new teacher hires?

Research Question Two: Do new hires from alternative certification programs demonstrate a difference in teacher retention when compared to graduates from a university-based program?

Research Question Three: Are there differences in teacher retention between new teacher hires from Texas universities and new teacher hires from out-of-state universities?

The goal of this study was to examine archival retention data from teachers employed in an urban school district in southeast Texas. The research included only the teachers hired during the 2008-2009 academic year. Using the predetermined teacher sample pool, retention data during the 2008-2009, 2009-2010, and 2010-2011 school years were collected.

This chapter contains the statistical research method used for this study. A description of the study district and the participant selection process are presented in

detail. Likewise, the process related to the research procedures and a description of how the data were analyzed are included as part of the comprehensive summary.

### **Study District Overview**

The study district is located in an urban setting in southeast Texas. There were over 63,000 students disseminated within 73 schools in the district. The campus distribution consists of 8 EC/PK centers, 31 elementary schools, 11 intermediate schools, 10 middle schools, 4 ninth grade schools, 6 senior high schools, and 3 alternative schools. The district encompasses more than 111 square miles.

Minority students in the district represent the majority population. As depicted in Table 2, the Hispanic student population exceeded the number of other ethnic groups by a large percentage. More than half of the student population was of Hispanic descent. Consequently, the large representation of these students contributes to 31.8% of the student population identified as limited English proficient (LEP) (TEA, 2009). Students identified as LEP reveal exposure to other language(s) in their home environment. School enrollment prescreening measures identified students with a need to acquire English as a second language. In the study district, English language acquisition is supported through either the bilingual program or English as a second language (ESL) program. Although the majority of the students are of Hispanic descent, it should be noted that the two programs represent various ethnic student populations and are not limited to Spanish speakers.

African American students were the second largest subgroup in the district. Although state averages demonstrated a larger population of White students as compared to African

American students, this was not consistent with the findings in the district. The student population was comprised of less than 5% White students. In terms of Native American students and Asian or Pacific Islander students, even less of a representation was found in the study district (TEA, 2009).

Table 2

*2008-2009 Study District Student Demographics*

White, Non-Hispanic	African American	Hispanic	Asian	Other
3.3%	29.6%	65.3%	1.8%	0.1%

In the state of Texas, 56.7% of the students were identified as economically disadvantaged (TEA, 2009). The study district substantially surpasses the state with an average of 85 % students that are economically disadvantaged (TEA, 2009). The high numbers of economically disadvantaged students contributed to the identification of all schools, with the exception of one, to be considered Title I campuses. In addition, 70.1% of the student population in the district was also considered “at-risk” of dropping out of school (TEA, 2009).

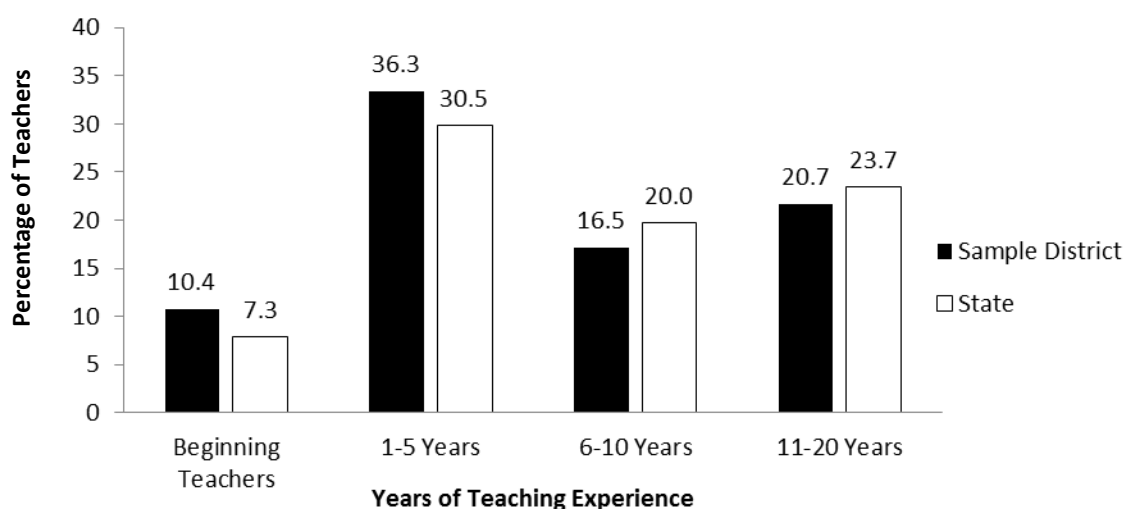
Teacher demographics in the study district did not reflect the student population. During the 2008-2009 school year, the teacher representation included 36.5% African American, 19.7% Hispanic, 41.4% White, less than 1% Native American, and 2.2% Asian. Although the majority of the student population was Hispanic, the largest number of teachers represented in the district was White (TEA, 2009).

The level of teaching experience varied among the employees in the district.

The levels of experience ranged from the following: beginning teachers with 0-5 years of experience, teachers with 6-10 years of experience, and teachers with 11-20 years of experience. Figure 3 illustrates the percentage of teachers employed in the study district during the targeted year. Clearly, a high percentage of the teachers in the district possessed 0-5 years of experience.

Figure 3

*Years of Teaching Experience in Study District: 2008-2009*



*Source: TEA, 2009*

There were over 4,000 professionals employed in the district during the 2008-2009 academic year. Although the student population represented an increased need for additional teachers, teachers were also hired to replace those choosing to resign from the district or retire. However, the teacher attrition rate remained within the same range during the course of the three-year study. During the 2008-2009 school year, the professional turnover rate for the district was identified as 13.4%. Similarly, the number of teachers that elected to leave the district during the 2009-2010 school year was 8.9% and 12.3% in 2010-2011. From year to year, the goal of the district was to retain a minimum

of 90% of their professional staff. To achieve this goal, professional resignations would need to demonstrate an attrition rate of  $\leq 10\%$ .

### **Research Participants**

The sample for this study included 738 new teachers hired during the 2008-2009 academic year. The teacher sample pool during the targeted year consisted of more females than males that were hired in the district. This included 507 females and 231 males that were employed to fill vacancies or added teacher positions in the district. In terms of ethnic representation, Table 3 illustrates the new teacher population by percentage. The distribution encompassed 277 White teachers, 225 African American teachers and 213 Hispanic teachers. Furthermore, 21 of the new teachers hired were Asian and 2 more were identified as “Other.”

Table 3

#### *2008-2009 New Teacher Demographics*

White, Non-Hispanic	African American	Hispanic	Asian	Other
37.5%	30.5%	29.0%	2.8%	0.2%

Data from the identified sample were utilized to track teacher retention trends for three consecutive years. The 2008-2009 academic year was representative of year one of the study. Data from year two analyzed participants remaining in the district during the 2009-2010 school year. Likewise, year three monitored teacher retention rates for the 2010-2011 academic year. Subjects that continued their employment in the district for the third year were represented in the year three results.

## **Research Procedures**

For purposes of this research, participants identified to participate in the study included new teachers hired during the 2008-2009 school year. New hire information was obtained from the Department of Human Resources in the study district. The sample was comprised of all new teachers hired in the district during the targeted year. The identity of all subjects identified was kept confidential. Each participant in the sample was assigned a numeric reference number to consistently link individual data to the multiple variables outlined in the study. Background information was obtained and summarized for reporting purposes. A coding system for each variable was developed and logged on a grid for consistent collection of information. The coding was a numerical representation used to track specific information. The number “1” was used for “yes” responses. “No” responses were represented by using the number “2.”

The data collection included multiple elements that were included in the analysis. The identification of subjects’ employment status during the designated three-year time frame was collected and listed as relevant data. In addition, information was gathered to determine if the subjects attended a university in Texas or an out-of-state university. During this time, the participants’ course of study was also identified to determine if a traditional university-based program in the field of education was taken or whether an alternative certification route was used to obtain a Texas teaching certificate. The final variable encompassed the identification of former student teachers in the study district. All others were coded as such. Refer to Appendix A for a sample of the grid that was used to compile the participant information.

## Data Analysis

Quantitative data was collected to examine the correlation between retention rates and various teacher certification paths. To analyze the data and to determine the level of significance between different variables, the descriptive statistics model was used. As defined by Wiersma and Jurs (2009), a descriptive statistic is, “the part of statistical procedures that deals with describing distributions of data and relationships between variables” (p. 476). A computer assisted program, The Statistical Package for the Social Sciences (SPSS), generated the data results for this statistical method. Each variable within the descriptive statistics model included the minimum values, maximum values, mean, and the standard deviation for each variable. To compute the correlation among the variables, two statistical models were used to perform the analysis: Pearson’s chi-square test and ordered logistic regression. Variables with  $p < 0.05$  level suggested a significant difference was revealed. In contrast, variables that exhibit a  $p > 0.05$  proposed that no statistical difference was present.

For purposes of this study, the independent variables were the location of the participants’ student teaching experience, the course of study, and the location of the teachers’ acquired certification. The location of the participants’ student teaching experience contained two specific categories: study district or another district. All new hires participating in the study district’s student teaching program were coded as described. The other new hires were coded as non-participants of the program. Traditional university-based program or ACP comprised the two categories of the second group of variables that were analyzed by the researcher. The certification path taken by the new hires served as the determining factor for the coding. Finally, the location of the



acquired teacher certification included one category that was designated for in-state certification and another category for out-of-state certification.

Teacher retention data, as measured at the end of each of the three consecutive years, served as the dependent variable. Given the purpose of the study, results determined if a relationship existed between selected certification paths and teacher retention.

### **Scope and Limitations**

There were several limitations of this study. The most significant limitation included the transfer of teachers after the beginning of a school year. On an annual basis, student projections are determined during the second semester of the prior academic year. Results of those projections are used to calculate the number of classroom teacher units (CTUs) per campus. Thus, school allocations are based on a predetermined staffing formula that varied according to grade level. Prior to the beginning of the academic year, approval for recommended CTUs is obtained from the district's school board members. The process continues at the beginning of each year. Student attendance is monitored and recommendations to alter campus CTU counts occur. Consequently, student enrollment, whether higher or lower than projected, could result in the need to create campus shifts and teacher transfers to other campuses. Since teacher transfers are based on seniority, the new employees hired in the district are the ones most impacted by this process. Some teachers in the study experienced a change in campus placement during their first year in the district. Although efforts are made to support the teachers when transfers occur, relocating from one campus to another campus could have influenced their decision to remain in the district.

Another limitation in the study is the variance of support a new teacher receives at the campus level. Although the district has placed a structured mentoring program to support teachers new to the district, the degree of implementation varies from campus to campus. As a result, certain campuses in the district have consistently demonstrated a low number of teacher turnover rates on an annual basis. Likewise, a few district campuses consistently exhibit high numbers of teachers electing to leave the district. Administrative support and the support of their colleagues could possibly contribute to a teacher's desire to remain the district. Actions taken by the professionals on the individual campuses, whether positive or negative, should be considered as local decisions are made within each district.

The final limitation in the study includes the decreased number of professional opportunities available during the three-year study. Uncertainty with the state's proposed budget cuts caused districts to become more conservative with expenditures. In some instances, districts prepared to implement a possible reduction in force. Discussions to increase class sizes and to consider a "hiring freeze" were also considered among districts. The financial challenges faced by districts and employers in other professions contributed to heightened teacher awareness. For that reason, job security may have contributed to more reserved actions and less transitions among the teaching profession.

## **CHAPTER FOUR**

### **RESULTS**

In chapter four, the results of the study are presented. The purpose of the study was to determine if particular certification paths influence teacher retention. Specifically, three research questions were investigated:

Research Question One: Is there a difference in teacher retention between new hires that were former student teachers and other new teacher hires?

Research Question Two: Do new hires from alternative certification programs demonstrate a difference in teacher retention when compared to graduates from a university-based program?

Research Question Three: Are there differences in teacher retention between new teacher hires from Texas universities and new teacher hires from out-of-state universities?

The research questions were examined using quantitative data from new teachers hired during the 2008-2009 academic year. Prior to initiating the research, permission was solicited and granted from the study district. Approval was also attained from the University of Houston's Division of Research to conduct the research (Refer to Appendix B).

#### **Descriptive Statistics**

The data were gathered from 738 new teachers in the study district. The gender representation of the new teachers hired included more females (69.0%) than males (31.0%). There were three major ethnic groups represented in the study: White (37.5%), Black (30.5%) and Hispanic (29.0%). Almost all of the new teachers entered the study

district as first year teachers. There were three additional groups with two independent variables represented in Table 4: student teacher program, certification program, and certifying state. The two independent variables for the student teacher program were former student teachers in the study district and other new teachers hired. The certification program's independent variables included the ACP and university-based programs. The final two independent variables were driven by the certifying state: in-state certified teachers and out-of-state certified teachers. The study explored the effects of the independent variables using teacher retention as the dependent variable. The descriptive statistics for research participants and a list of categorical variables and their frequencies are included on Table 4.

Table 4

*Descriptive Statistics on Teacher Demographic Variables*

Categorical Variables	Frequency	Percent
	N = 738	N = 738
Gender		
Male	227	31.0%
Female	511	69.0%
Ethnic Representation		
White	277	37.5%
African American	225	30.5%
Hispanic	213	29.0%
Asian	21	3.0%
Other	2	>1.0%

Table 4 (continued)

*Descriptive Statistics on Teacher Demographic Variables*

Categorical Variables	Frequency	Percent
	N = 738	N = 738
Teaching Experience		
Yes	3	>1.0%
No	735	99.0%
Student Teacher Program		
Study District	102	14.0%
Another District	636	86.0%
Certification Program		
Alternative Certification Program (ACP)	317	43.0%
University-Based Program	421	57.0%
Certifying State		
In-State	439	59.0%
Out-of-State	299	41.0%

To determine if a relationship was present between the variables, chi-square tests of independence were conducted by the researcher. This analysis evaluated the relationship between two variables. As a nonparametric test, the calculations were performed using categorical data. The model is designed to test the null hypothesis that suggests that no significant difference is present between expected and observed outcomes. Conversely, the assumption that a significant difference between the tested

variables exists is consistent with the alternative hypothesis. The preliminary tests conducted were performed to evaluate the relationship among descriptive statistics.

The first chi-square test was used to analyze the statistical difference between the retention rate of male and female study participants. Outcomes either supported the null hypothesis or the alternative hypotheses:  $H_0$ : Females and males do not demonstrate a significant difference as measured by years of retention using a three-year time frame, or  $H_a$ : Females and males demonstrate a significant difference as measured by years of retention using a three-year time frame.

Table 5 displays the teacher gender distribution as it relates to the number of years of retention in the study district. The findings suggested that gender was a reliable predictor of teacher retention. The value of the test observed was greater than the expected value,  $\chi^2(2) = 10.8795, p = 0.004$ . New teacher gender and the total number of years remaining in the district may be dependent on each other. The results suggested that some effect or difference between the genders was present.

Table 5

*Distribution of Teacher Gender by Years of Retention*

Number of Years Retained	Gender	
	<u>Female</u>	<u>Male</u>
1 year	55	45
2 years	49	20
3 years	405	162

The findings concluded that a difference was present among genders with  $p < .05$ . In conclusion, the null hypothesis was rejected. A statistical difference existed among

females and males regarding the number of years each group remained employed in the study district. Consequently, the alternative hypothesis was accepted.

With regard to the ethnic representation of new teachers hired during the 2008-2009 school year, each was compared to the number of years retained in the district. In Table 6, the value of test observed was greater than the expected value,  $\chi^2(2) = 26.6013$ ,  $p = 0.001$ . The ethnic representation and years retained in the study district may not be dependent of each other. With the assumption that the null hypothesis was true, the findings suggested that some effect among the different ethnic groups was present. Even though the chance of observing a test statistic as extreme as the one observed was .01%, there was disparity in the data for two of the categories. Although some effects may have been present, the Asian and “Other” sample groups could have impacted the results with the low numbers represented. Only the White, African American, and Hispanic ethnic groups represented a robust representation of numbers or sample size.

Table 6

*Distribution of Teacher Ethnicity by Years of Retention*

Number of Years Retained	White	African American	Hispanic	Asian	Other
1 year	49	30	18	2	1
2 years	38	9	19	3	0
3 years	190	186	176	15	2

The null hypothesis would have resulted in the following outcome:  $H_0$ : The ethnic groups do not demonstrate a significant difference as measured by years of retention.

The alternative hypotheses would have demonstrated the next effect:  $H_a$ : Ethnic groups

exhibit a significant difference as measured by years of retention using a three-year time frame.

As reflected in the results from Table 3, the null hypothesis was accepted, although there appeared to be some difference or relationship among ethnic representation. The alternative hypothesis was cautiously rejected since outliers were included in the analysis, thereby suggesting the possible presence of a statistical difference.

There were more first-year teachers hired during the 2008-2009 school year when compared to teachers hired with experience. Table 7 includes the distribution among the two teacher groups, with experience and without experience, as it relates to teaching experience and teacher retention. The value of the tests observed was less than the expected outcome,  $\chi^2(2) = 2.3039, p = 0.316$ . The ethnic variables appeared to be dependent of each other; however, a disproportion was evident among two of the independent variables. Assuming that the null hypothesis was true, the chance of observing a test statistic as extreme as the one observed was 31%.

Table 7

*Distribution of Teaching Experience by Years of Retention*

Number of Years Retained	No Teaching Experience	With Teaching Experience
1 year	100	0
2 years	68	1
3 years	567	2



Given these results, the null hypothesis,  $H_0$ : Teachers with or without experience do not demonstrate a significant difference as measured by years of retention, was cautiously accepted. The results suggested that teachers with experience and new teachers to the profession may not have been independent of each other. The alternative hypothesis was rejected,  $H_a$ : Teachers with or without experience exhibit a significant difference as measured by years of retention. Since the findings did not appear to demonstrate a relationship among the levels of experience and retention over time, the disparity among the sample size should be considered.

The following tables analyze the effects of the independent variables identified in the study. The null and alternative hypotheses exclusive to the study research questions are as follows:

$H_{01}$ : Former district student teachers do not demonstrate a significant difference when compared to other new teachers as measured by retention over a three-year time frame.

$H_{a1}$ : Former district student teachers demonstrate a significant difference when compared to other new teachers as measured by retention over a three-year time frame.

$H_{02}$ : Alternative certification programs and university-based programs do not exhibit a statistical difference as measured by retention over a three-year time frame.

$H_{a2}$ : Alternative certification programs and university-based programs demonstrate a statistical difference as measured by retention over a three-year time frame.

$H_{03}$ : In-state and out-of-state teacher certification do not demonstrate a statistical difference as measured by retention over a three-year time frame.

$H_{a3}$ : In-state and out-of-state teacher certification demonstrate a significant difference as measured by retention over a three-year time frame.

To determine the impact of the independent variables on teacher retention, the primary statistical method performed was the Pearson chi-square test. Results of the analysis served to predict the relationship between the independent variables as they relate to teacher retention.

### **Research Question One**

To determine if a statistical significance was present between former district student teachers and other new hires, a Pearson chi-square test was performed for this investigation. Table 8 includes the odd ratios of the student teachers that were present in the study district and new teachers hired that did not complete their student teaching in the study district. The value of the test observed was greater than the expected value, with a 30% probability that a correlation existed,  $\chi^2(2) = 2.4100, p = .30$ . If the null hypothesis was true, there was a 30% chance of observing a test statistic as extreme as the one observed by the researcher. According to the  $p$  value of 0.300, there appeared to be no significant effect between the total new hires that were former district student teachers and other new hires. It appeared that the variables may not have been independent of each other.

Table 8

#### *Distribution of Student Teachers by Years of Retention*

Number of Years Retained	Another District	Sample District
1 year	91	9
2 years	60	9
3 years	485	84

The null hypothesis was accepted. Since there was no apparent difference or relationship between the two independent variables, the alternative hypothesis was rejected.

### **Research Question Two**

A chi-square test was also used to measure the effects of certification programs and teacher retention. The research question under investigation was: Do new hires from ACPs demonstrate a difference in teacher retention when compared to graduates from a university-based program?

The odds ratio as it related to various teacher certification programs and teacher retention is demonstrated on Table 9. The value of the test observed was greater than the expected outcome,  $\chi^2(2) = .8134, p = 0.666$ . According to the  $p$  value of 0.666, there appeared to be no effect between the certification programs and the years retained in the study district. Assuming that the null hypothesis was true, the chance of observing a test statistic as extreme as the one observed was 66%. The variables appeared to be independent of each other.

Table 9

#### *Distribution of Certification Program by Years of Retention*

Number of Years Retained	Traditional University- Based Program	Alternative Certification Program
1 year	61	39
2 years	40	29
3 years	320	249

The null hypothesis was accepted. There was no difference or relationship between route of certification and retention. Neither the ACP nor the traditional university-based programs appeared to influence teacher retention. Consequently, the alternative hypothesis was rejected.

### **Research Question Three**

Are there differences in teacher retention between new teacher hires from Texas universities and new teacher hires from out-of-state universities? This was the final question of the study. Using the chi-square test of independence, the data were used to learn if a significant difference existed between the certifying state and teacher retention.

Considering the two independent variables, the ratio of odds as it related to the dependent variable is included in Table 10. The value of the test observed was greater than the expected outcome,  $\chi^2(2) = 2.3364, p = 0.311$ . The two variables appeared to be independent of each other. Furthermore, there did not appear to be an effect between the certifying state and retention over time, as confirmed using the  $p$  value of 0.311. If the null hypothesis was correct, the chance of observing a test statistic as extreme as the one observed was 31%.

Table 10

#### *Distribution of Certifying State by Years of Retention*

Number of Years Retained	Out of State	In State
1 year	46	54
2 years	31	38
3 years	222	569

The null hypothesis was accepted since there was no significant difference between the in-state and out-of-state teachers as compared to the years retained in the district. Consequently, the alternative hypothesis was rejected.

### **Ordered Logistic Regression**

An ordered logistic regression analysis was also performed using the quantitative data collected for the study. This analysis is responsible for the degree of the association between the variables of interest and the outcome. According to Field (2009), the most Essential component in the interpretation of a logistic regression model is the value of the odds ratio. In other words, “If the value is greater than 1 then it indicates that as the predictor increases, the odds of the outcome occurring increase. Conversely, a value less than 1 indicates that as the predictor increased, the odds of the outcome occurring decrease” (Field, 2009, p. 271).

The student teacher program variables were statistically reliable predictors of teacher retention,  $\chi^2(1) = 2.18, p = .1397$ . The odds ratios of student teachers were 1.48 times more likely to remain in the study district. Furthermore, with a  $p$  value associated with the risk ratio of 0.155, the results suggested there may be some effect. The former district student teachers demonstrated the highest odds ratio in the presence of all independent variables. Results of the analysis for this predictor concluded that although there was not a statistical difference, some effect may have been present.

The odds ratios for the certification program variables were statistically reliable predictors of teachers retained for one, two, and three years,  $\chi^2(1) = 0.74, p = .3912$ . The odds ratio for certification through for an ACP was 1.16 times more likely to remain in the district. The  $p$  value related with the risk ratio of 0.392 indicated that a medium

Effect may have been present. There was no statistical difference; however, the results were going in the right direction. With a value of greater than 1, the alternative certification variable as a predictor increased, and the odds of retaining teachers also increased.

Teachers obtaining their certification in the state of Texas demonstrated an odds ratio of 1.30 times more likely to remain in the district. Similarly, the variables associated with the certifying state were statistically reliable in predicting teacher retention,  $\chi^2(1) = 2.31, p = .1282$ . The  $p$  value associated with the risk ratio of .127 suggested some effect was present, but it was not enough to influence the results in statistical terms. Results concluded that no statistical difference was evident. Table 11 illustrates the results of the ordered logistic regressions.

Table 11

*Ordered Logistic Regression Results*

Predictors	Odds Ratio	Standard Error	$z$	$p >  z $	95% Conf. Interval
Student Teachers	1.48	.41	1.43	.0155	.86, 2.53
ACP	1.16	.21	.86	0.392	.82, 1.64
In-State Certification	1.31	.23	1.53	0.127	.92, 1.84

The presence of all factors, student teaching program, ACP, and in-state certification, increased the likelihood to remain in the study district. Likewise, the existence of all factors independently increased the likelihood to retain teachers. Although there was no statistical difference among the three variables, the findings suggested that all three variables were progressing. In addition, the analysis

demonstrated that former student teachers in the study district were more likely to demonstrate the highest teacher retention rates.

To provide further insight, gender and ethnicity were added to the equation. Table 12 includes the added variables to the student teacher grouping. The student teacher variables were statically reliable predictors of teacher retention,  $\chi^2(1) = 26.81$ ,  $p = 0.060$ . The first analysis using this model yielded a result that suggested former student teachers were 1.69 times more likely to remain in the district. There appeared to be gender association with the odds ratio of .6759 and a  $p$  value of .035. African American females that completed their student teaching in the study district were 2.12 times more likely to remain in the district. Likewise, a Hispanic female that completed the study district's student teaching program was 2.10 times more likely to remain in the district. Although the  $p$  value with covariant of intervals for the Asian ( $p = .424$ ) and "Other" variables ( $p = .787$ ) revealed a significant difference, the results could have been misrepresented due to the low numbers included in the group. Also, even though former student teachers in the study district appeared to demonstrate a statistical difference, the disproportion warranted additional examination.

Table 12

*Ordered Logistic Regression Results With Gender and Ethnicity: Student Teachers*

Predictors	Odds	Standard	<i>z</i>	<i>p</i> > <i> z </i>	95% Conf.
	Ratio	Error			Interval
Student Teachers	1.6962	.47	1.88	.060	.9785, 2.9403
Females	.6759	.12	-2.11	.035	.4696, .9729
White					Reference Category
African American	2.1212	.46	3.41	.001	1.3766, 3.2687
Hispanic	2.1003	.47	3.31	.001	1.3541, 3.2577
Asian	1.5230	.80	.80	.424	.5430, 4.2716
Other	.7073	.90	-.27	.787	.0572, 8.7328

The predictors for teachers participating in an ACP with the presence of gender and all the ethnic groups were included in the following analysis. With an odds ratio of .66, it appeared that gender association may have been present. The results suggested that in the presence of all variables, teachers certified by an ACP were 1.00 times more likely to remain in the district. With a *p* value of .002, Hispanic females in the ACPs were 2.03 times more likely to be retained as teachers. Similarly, African American females from ACPs were 1.98 times more likely to demonstrate retention. Comparable to the findings in Table 6 teachers from ACPs, Asian teachers, and “Other” teachers may have been influenced by the representation of two of the ethnic groups. A statistical difference was not confirmed for the three independent variables. Table 13 summarizes these findings.



Table 13

*Ordered Logistic Regression Results With Gender and Ethnicity: Alternative Certification Programs*

Predictors	Odds Ratio	Standard Error	<i>z</i>	<i>p</i> > $ z $	95% Conf. Interval
ACP	1.00	.18	.04	.972	.7027, 1.4413
Females	.66	.12	-2.16	.031	.4652, .9630
White					Reference Category
African American	1.98	.43	3.11	.002	1.2886, 3.0658
Hispanic	2.03	.45	3.14	.002	1.3059, 3.1587
Asian	1.41	.75	.66	.510	.5019, 4.0020
Other	.73	.91	-.25	.802	.0623, 8.5602

Table 14 reflects the statistical results for the state in which the teachers became initially certified. The adjusted ethnic groups and gender were present in the analysis. The results generated a gender association with an odds ratio of .69. The findings further concluded that teachers certified in the state of Texas were 1.05 times more likely to remain in the district. Hispanic females that obtained their certification in-state exhibited the highest odds ratio with 2.01 times more likely to demonstrate retention. Likewise, African American females with in-state certifications were 1.96 times more likely to remain in the district. Teachers acquiring their certification in-state, Asian teachers, and “Other” teacher results appeared to suggest that a statistical difference was present. The conclusion warranted further examination of the data.

Table 14

*Ordered Logistic Regression Results With Gender and Ethnicity: Certifying State*

Predictors	Odds Ratio	Standard Error	$z$	$p >  z $	95% Conf. Interval
In-State	1.05	.19	.29	.769	.7357, 1.5141
Females	.67	.12	-2.11	.035	.4670, .9727
White					Reference Category
African American	1.96	.43	3.04	.002	1.2709, 3.0380
Hispanic	2.01	.45	3.09	.002	1.2908, 3.1325
Asian	1.40	.74	0.65	.514	.5026, 3.9519
Other	.73	.92	-0.24	.809	.06264, 8.6825

The assumption that the  $p$  values for the Asian population and for the “Other” ethnic population influenced the results due to low representation that triggers additional exploration. The ordered logistical regression model was performed a second time for each category and excluded the two demographics in question. The disparity among the two groups was eliminated in order to prevent them from inaccurately impacting the odds ratios for all the predictors. Results from the new analysis are included in Tables 15, 16, and 17.

Adjustments allowed for only robust ethnic representation to be included in the statistical measure as illustrated on Table 15. Former district student teachers exhibited that they were 1.78 times more likely to be retained in the district. The adjusted

analysis strengthened the presence of a statistical difference with a  $p$  value of .043.

African American and Hispanic females that were former district student teachers were 2.1 times more likely to remain teaching in the study district. The only variable demonstrating that the contribution was statistically significant was former student teachers in the district.

Table 15

*Adjusted Ordered Logistic Regression Results With Gender and Ethnicity: Student Teachers*

Predictors	Odds Ratio	Standard Error	$z$	$p >  z $	95% Conf. Interval
Student Teachers	1.78	.51	2.02	.043	1.0174, 3.1374
Females	1.50	.28	2.15	.031	1.0374, 2.1778
White					Reference Category
African American	2.12	.47	3.43	.001	1.3819, 3.2829
Hispanic	2.10	.47	3.31	.001	1.3534, 3.2586

Similar to the adjusted student teacher program analysis, the analysis for the ACP was repeated to exclude two of the ethnic groups. The odds ratios for all the independent variables reflected a value greater than 1, thereby increasing the odds of outcome occurring. Alternative certification teachers were 1.02 times more likely to remain in the district in the presence of gender and ethnicity. Hispanic females certified by ACPs were 2.01 times more likely to be retained in the district. Also, African American females from ACPs were 1.97 times more likely to demonstrate retention over time. With a  $p$

value of .909, alternative certification did not demonstrate a significant difference. Table 16 reflects the detailed results.

Table 16

*Adjusted Ordered Logistic Regression Results With Gender and Ethnicity: Alternative Certification Programs*

Predictors	Odds Ratio	Standard Error	<i>z</i>	<i>p</i> >   <i>z</i>	95% Conf. Interval
ACP	1.02	.19	.011	.909	.7088, 1.4718
Females	1.52	.28	2.22	.026	1.0505, 2.0227
White	Reference Category				
African American	1.97	.43	3.08	.002	1.2821, 3.0523
Hispanic	2.01	.45	3.11	.002	1.2970, 3.1399

The final investigation included the state in which the teachers were initially certified. Table 17 summarizes the results of the analysis. The adjustments strengthened the direction of in-state teacher results in the presence of gender and ethnicity. In-state certified teachers were 1.04 time more likely to be retained in the study district. A statistical difference was confirmed with a *p* value of .799. Although no other variables revealed significant difference, all the odd ratios were greater than 1. Hispanic female teachers certified in the state of Texas were 2.00 times more likely to remain in the district. Similarly, African American females with in-state certification were 1.96 more likely to demonstrate retention.

Table 17

*Adjusted Ordered Logistic Regression Results With Gender and Ethnicity: Certifying State*

Predictors	Odds Ratio	Standard Error	<i>z</i>	<i>p</i> > <i> z </i>	95% Conf. Interval
In-State	1.04	.19	.26	.799	.7268, 1.5137
Females	1.51	.28	2.18	.029	1.0422, 2.1961
White	Reference Category				
African American	1.96	.43	3.03	.002	1.2699, 3.0384
Hispanic	2.00	.45	3.07	.002	1.2867, 3.1262

The adjustments made to the ordered logistical regression model strengthened the results of the analysis. Deleting the two ethnic variables produced a more accurate odds ratio and probability outcomes.

### Summary

The results of the descriptive statistics concluded that gender was the only group that demonstrated a significant difference. The chi-square test results confirmed that females had a statistically higher retention rate when compared to their male counterparts,  $\chi^2(2) = 10.8795, p = 0.004$ . Likewise, there was one independent variable that demonstrated some evidence of retention in the district. Results from the chi-square tests suggested that former district student teachers exhibited higher rates of remaining in the district when associated with teachers that did not student teach in the district,  $\chi^2(2) = 2.4100, p = 0.30$ . The ordered logistic regression analysis did not demonstrate a significant difference between any of the independent variables. However, the former

district student teachers did exhibit the highest odds ratio in comparison to the other independent variables. Previous student teachers in the district were 1.48 times more likely to demonstrate retention. In the presence of gender and ethnicity, former student teachers,  $p = .060$ , teachers with alternative certifications,  $p = .972$ , and teachers certified in-state,  $p = .769$ , demonstrated that no statistical differences occurred. However, as a result of the eliminated ethnic gaps, adjusted results confirmed that former student teachers,  $p = .043$ , were statistically different.

Historically, teacher retention has remained a focus at the state and national level. Districts are equally motivated to retain high quality teachers as a result of the accountability standards set forth the state and federal government. Although numerous studies have suggested that support systems are essential components that contribute to teacher retention, alarming statistics suggest that as many as 50% of new teachers will be needed to assume positions in our classrooms within the first five years of beginning the profession (Kent & Simpson, 2009). Furthermore, financial allocations to support the continued recruitment of teachers exceed an annual cost of \$7 billion on a nation level. (Carroll & Foster, 2010; Hershberg & Robertson-Kraft, 2009). The cycle of replacing experienced teachers with new teachers, whether with experience or first-year teachers, disrupts instruction.

## **CHAPTER FIVE**

### **DISCUSSION**

#### **Conclusions**

The act of teaching is incredibly complex that extends over multiple dimensions. Although there are physical, emotional, and cultural differences in students, they are expected to learn the curriculum within a certain time frame. To teach is to design lessons, react to the needs of the students, meet with parents, and respond to leadership inquiries. To teach also requires the need to make hundreds of consequential decisions on a daily basis. The complexity of teaching has been studied for decades and will continue to be researched for years to come. This study attempted to discover whether conditions prior to beginning the profession impacted teacher retention.

Research has identified factors that influence teacher retention for decades. However, the studies have primarily focused on interventions that support teachers after they begin working in the profession. District leaders expect to retain teachers if the administrators are sensitive to the emotional shifts as identified by Moir (1990). Likewise, if administrator support is present and there are opportunities for continued growth in collaborative settings, then teachers would remain in the classrooms. Strong mentorship programs that contribute to the development of the teachers' practice and competitive salaries would equate to teacher retention. However, what if teachers continue to leave the classrooms?

Given the fact that teachers continue to leave the profession, the purpose of the study was to investigate factors that existed prior to teachers beginning their careers. With an emphasis on teacher retention, three central areas became the focus of the

investigation. First, the research explored the effects of former district student teachers as compared to new hires that did not complete their student teaching in the study district. Second, the impact of teachers that completed traditional university-based program as opposed to teachers becoming certified through an ACP was examined. Finally, the effects of initial teacher certification (e.g., in-state or out-of-state) on retention was studied by the researcher.

Quantitative data were collected from a large urban district. The data were compiled and coded to reflect the outcomes of each independent variable. Additional data gathered included teacher demographic information. There were 738 teacher participants in the study.

To accurately obtain the results for the research, a Pearson chi-square test for independence was the first statistical test performed. Descriptive statistics were calculated using this method to obtain feedback in three areas: gender, ethnicity, and years of experience. The statistical results suggested that females were more likely to demonstrate longevity. A difference between females and males was present with a  $p < .05$ . In terms of ethnic representation and years of experience, the independent tests concluded that although some effect existed, it was not sufficient to deem them statistically significant.

In order to evaluate whether a relationship existed between the independent variables and the number of years retained in the district, a chi-square test was completed. In all three analyses, the null hypotheses were accepted. There was no apparent relationship between the independent variables when compared to the number of years retained in the district.



When the determination that no relationship was present, an ordinal logistic regression was executed to determine the degree of association between the variables of interest and teacher retention. Initially, the evaluation of the independent variables generated comparable results. The odds ratios for former district student teachers exhibited 1.48 times more likely to be retained as a teacher. Those certified through an ACP produced 1.16 times more likely to remain in the district. Similarly, certification from an in-state program revealed 1.30 times more likely to remain in the district. Results suggested that all three of the factors were going in the same direction; former district student teachers displayed the best odds.

Using the same statistical model, the analysis was conducted with the presence of gender and ethnicity. Again, former district student teacher data produced the highest odds ratio. Student teachers were 1.69 times more likely to remain as a teacher. Teachers from ACPs were 1.00 time more likely to be retained. Likewise, teachers from in-state certification programs were 1.05 times more likely to exhibit retention. Noting the possible disparity among two of the ethnic groups, adjustments were made to include only the three strongest variables. Even with applied modifications that excluded the Asian and "Other" variables, former district student teachers were the highest predictor associated with teacher retention. There was a 1.79 times more likelihood that former student teachers would remain in the district. The ACPs produced teachers that were 1.02 times more likely to be retained in the district. Teachers initially certified from in-state programs were 1.05 times more likely to demonstrate longevity.

In conclusion, the strongest variable in all the tables was the former district student teachers. Given the appropriate level of support, hiring teachers that complete their student teaching in the same district are more likely to be retained over time.

### **Limitations**

There were several limitations of this study. The first limitation included is the transfer of teachers from one campus to another at the beginning of the year. Student and classroom teacher units (CTUs) are projected several months prior to the following academic year. Current enrollment is used to forecast the student projections. Results of those projections are used to calculate the number of CTUs per campus. Accordingly, school allocations are based on a predetermined staffing formula that varies according to grade level. School board approval is obtained, and changes are made accordingly by the campus administrators and the staffing directors in the Human Resources Department. At the beginning of each year, student attendance continues to be monitored by district administrators. Consequently, recommendations to alter campus CTU counts occur, and changes are made to campus allocations. Teachers could be transferred to another school if the campus experiences a decrease in enrollment. In the study district, teacher transfers are based on seniority. Therefore, new district employees are the ones most likely to experience this change. Some of the participants in the study were moved from one campus to another campus after the beginning of the academic year. If affected by a transfer at the beginning of the year, the required change to another campus could influence a decision to remain in the district.

Another limitation in the study is the level of support campuses extend to their new teachers. District expectations include a structured mentoring program to support

teachers new to the district. However, the degree of implementation fluctuates from campus to campus. There are campuses in the district that consistently demonstrate low, annual teacher turnover rates. There are also a few district campuses that consistently reveal a high numbers of teachers that leave the district. Administrative support and the support of coworkers could be a contributing factor as to whether teachers elect to remain in the district. Campus and district trends should be taken into account as results are interpreted.

The last limitation in the study is the decrease in the number of professional employment opportunities. Employment trends within the three-year time frame demonstrated more conservative hiring practices among the districts. State budget cuts forced districts to become more conservative with expenditures. In some instances, districts even found the need to prepare for reductions in force. Many districts increased student-to-teacher ratios and implemented a “hiring freeze.” The financial challenges were not exclusive to districts. Consequently, this led to a more competitive market when positions were available. The decline in professional teaching opportunities may also have contributed to teacher retention.

### **Implications for Instructional Leadership**

Prior to graduation, future teachers select districts of interest to complete their student teaching experience. Although consistent expectations are formulated in compliance with university requirements, the level of support varies and is unique to each individual student. District leaders work in collaboration with the university partners to provide a nurturing environment for students as skill sets unfold and develop. An

investment of time by the supervising teacher and campus administration provides exposure and hands-on experiences in the classroom.

The implications of the research suggest that hiring teachers that completed their student teaching experience in the same district are more likely to demonstrate retention. As such, district leaders should know that the study district has embedded multiple structures within their student teaching program. Furthermore, the program is evaluated and adjusted from one semester to another based on the needs of the student teachers.

Defining the transition of new teachers moving from the learning environment to that of everyday life in the classroom as “reality shock” (Veenman, 1984) is a primary reason the sample district chooses to begin the interactions with future educators early. Relationships with students begin as soon as their freshman year. Human resource administrators are in university classrooms reinforcing the theoretical application of the practice with the hope of reducing the “reality shock.” This effort extends beyond the traditional job fair type recruitment initiatives. Additionally, as students elect to complete their student teaching in the study district, district leaders provide assistance by establishing student connections from one university to another. This effort is most beneficial for student teachers in need of finalizing housing options.

The district begins the student teaching program with an orientation breakfast. The meeting is designed to be welcoming and informative. District expectations are communicated, and the students are provided with the vision and mission of the district as it relates to their student teaching experience and possible future employment. From the beginning, the student teachers learn about the culture of the district and the district’s level of commitment to the program. Weekly professional development sessions are also

provided exclusively for the student teachers. The sessions include teacher-related content that may be applied in any teaching location. There are also topics that promote personal advancement such as financial planning. In addition to offering new learning opportunities, the student teachers apply current experiences to the new content within the learning communities. District leaders should also be aware that all of the sessions are presented by campus principals, district leaders, and superintendents from various levels. At the conclusion of the 10 sessions, a dinner is held in honor of the student teachers. The dinner is hosted by the district's board members and is intended for students to interact with all the superintendents and board members in a professional setting.

It is equally important for district leaders to know the level of commitment that the study district has for their student teachers. If a student teacher meets the following requirements, they are given "Letters of Intent": 1) successfully completes all university requirements, 2) receives excellent recommendations from their supervising teacher, principal, and university supervisor, 3) attends all student teacher professional development sessions, and 4) recommended by their university for certification. "Letters of Intent" are formal notices from the district informing the student teachers of the district's intent to hire as positions become available. It is important to note that the study district evaluates the implementation of the program to achieve its goal of continuous improvement.

### **Recommendations**

The key findings indicate that three categories reveal some effect to teacher retention: 1) student teachers, 2) alternative certified teachers, and 3) teachers receiving

their certification from in-state programs. Teachers from alternative certification programs and those from in-state certification programs revealed a higher likelihood to be retained in a district. Likewise, student teachers exhibited a statistical difference when compared to other new hires in terms of retention over time. As a result of the study, several suggestions for campus and district leaders should be considered. Table 18 lists a summary of the recommendations.

The primary implication that surfaced in the study was the difference between student teachers from the district as compared to other new hires. Since former district student teachers exhibited the most likelihood to demonstrate retention, the need to establish a structured student teaching program is the first recommendation for campus and district leaders. An analysis of the existing program should assist the district in determining if program goals are being met. An adjustment or a new program design should be created to ensure the components are aligned with the vision and the mission of the district. District leaders may consider implementing a formalized introduction that communicates the expectations and culture of the district in addition to the level of commitment. The need to provide ongoing support mechanisms could also strengthen the professional and personal skills sets of the potential teachers. With frequent and meaningful interactions, teacher retention is influenced at high levels according to one significant finding in the Project on the Next Generation of Teachers (Johnson et al., 2001). Upon completion of the plan, the suggestion would then be to implement the plan with the understanding that it must continue to be evaluated and possibly adjusted from one semester to another.

Contrary to the researcher's preconceived notions, the retention likelihood of teachers from alternative certification programs was higher than teachers from university-based programs. This could be aligned with the research conducted by Zeichner (2003). The findings suggested that there was a lack of preparation of teachers to work with students of different cultural backgrounds. This implies that additional investigation is needed to determine the effectiveness of the university-based programs. The suggestion ensures that a structured mentor program is available to support all novice teachers. As presented by Moir (2009), in order to provide professional support, mentors should be aware of the phases new teachers will experience during the course of the year. Furthermore, when confirming student teacher assignments, district leaders should consider environments where teachers are trusted, appreciated, and where time is allocated for collaborative interactions (Moir, 2009).

The implication that teachers acquiring their initial certification from an in-state program demonstrates a high likelihood to be retained is the final category to consider. The recommendation is for district and campus leaders to identify district emerging needs and possible in-state programs that produce teachers in those academic areas. Electing to begin searches with in-state teachers prior to recruiting beyond state borders may demonstrate a positive impact on teacher retention. Table 18 summarizes the researcher's recommendations.

Table 18

*Summary of Recommendations*

Variables	Implications	Recommendations
District Student Teachers	Student teachers exhibited the most likelihood to influence teacher retention.	<ol style="list-style-type: none"> <li>1. Analyze the existing student teacher program at the district level.</li> <li>2. Plan for a structured student teacher program that is aligned with the vision and mission of the district.</li> <li>3. Implement the adjustments made to the initiative.</li> <li>4. Evaluate and adjust the plan each semester.</li> </ol>
Other New Hires		
University-Based Programs	Teachers from ACPs demonstrated a higher likelihood retention.	<ol style="list-style-type: none"> <li>1. Evaluate the effectiveness of university-based programs as compared to ACPs.</li> <li>2. Ensure structured mentorship programs are present to support novice teachers.</li> </ol>
ACPs		
In-state Certification	Initial certification from in-state revealed a higher likelihood to remain in the district.	<ol style="list-style-type: none"> <li>1. Examine the needs of the district to determine the critical needs areas.</li> <li>2. Develop a strategic plan that identifies effective in-state certified teachers prior to extending beyond state boundaries.</li> </ol>
Out-of-state Certification		

**Implications for Future Studies**

The intent of this study was to determine if a relationship among predetermined certification routes influenced teacher retention. Further studies should focus on extensions to the present study. The following recommendations should be considered for future research:



1. Additional research is needed to predict the probabilities of the different possible outcomes. An extensive year-by-year analysis to determine the magnitude of the effect between the years of retention for each certification route would provide a more in-depth analysis of teacher retention.
2. Continued research is needed to measure the impact of certification routes as it relates to student outcomes. To make an informed hiring decision, teacher loyalty to a district is important. However, to ensure that the best hiring practices are followed, district leaders should consider the effectiveness of the teachers under investigation. Specifically, an in-depth examination of certification routes as they relate to student growth.
3. Further research is needed to assess the effects of certification routes as they pertain to teacher effectiveness. Teacher actions are essential and multiple elements can be used to measure the level of significance. Teacher effectiveness can be assessed by observed behaviors in the classroom: delivery of instruction or the classroom environment. Other considerations can be given to teacher effectiveness in terms of teacher preparedness or professional responsibilities. To study the results of predetermined choices by The teachers and how they impact teacher effectiveness warrants further investigation.
4. Other research is needed to investigate the effects of the interaction of salaries and additional support mechanisms on teacher retention. The examination of salaries that extend beyond being the sole determinant could yield a more in-depth analysis.

## References

- Alliance for Excellent Education. (2004). *Tapping the potential: Retaining and developing high- quality new teachers*. Washington, DC.
- Alliance for Excellent Education. (2008, February). *The costs of teacher turnover: Are we really losing the best teachers?* Retrieved from [http://www.all4ed.org/events/costs\\_teacherturnover](http://www.all4ed.org/events/costs_teacherturnover)
- Baker-Doyle, K. (2010). Beyond the labor market paradigm: A social network perspective on teacher recruitment and retention. *Education Policy Analysis Archives, 18*(26). Retrieved from <http://epaa.asu.edu/ojs/article/view/36>
- Barnes, G., Crowe E., & Schaefer B. (2007). The cost of teacher turnover in five school districts. *National Commission on Teaching and America's Future*. Washington DC.
- Barrick, M. R., & Zimmerman, J. L. (2005). Reducing voluntary, avoidable turnover through selection. *Journal of Applied Psychology, 90*(1), 159-166. Retrieved from APA PsychArticles Database.
- Bohan, C., & Null, J. (2007). Gender and the evolution of normal school education: A historical analysis of teacher education institutions. *Educational Foundations, 21*(3-4), 3-26.
- Borman, G. D., & Dowling, N. M. (2008). Teacher attrition and retention: A meta-analytic and narrative review of the research. *Review of Educational Research, 78*(3), 367-409.

- Brewster, C., & Railsback, J. (2001). *Supporting beginning teachers: How administrators, teachers and policy makers can help make teachers succeed*. ERIC, ED 455619.
- Bruno, J. E., and E. Negrete. (1983). Analysis of teacher wage incentive programs for promoting staff stability in a large urban school district. *Urban Review*, 15(3), 139–149.
- Buchanan, J. (2009). May I be excused? Why teachers leave the profession. *Asia Pacific Journal of Education*. 30(2). Retrieved from <http://www.informaworld.com>
- Carroll, T. G., & Foster, E. (2010). Who will teach? Experience matters. *National Commission on Teaching and America's Future*. Washington DC.
- Citarelli, V. E. (2006). *Teacher hiring practices: What practitioners say work*. University of Pennsylvania. Retrieved from <http://repository.upenn.edu/dissertations/AAI3209970>
- Clotfelter, C., Glennie, E., Ladd, H. & Vigdor, J. (2006). *Would higher salaries keep teachers in high-poverty schools? Evidence from a policy intervention in North Carolina*. NBER Working Papers 12285, National Bureau of Economic Research, Inc.
- Connell, R. (2007). Teachers. In R. Connell, et al. (eds.), *Education, change and society*. 262-279. South Melbourne: Oxford University Press.

- 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). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Duncan, A. (2010, January/February). Elevating the teaching profession. *NEA Today*, 28, 6-9. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5037496006>
- Feistritzer, E. (2009). The impact of alternative routes to teaching. *Education Week Spotlight*, 29(12), 26-32. Retrieved from <http://nces.ed.gov/programs/coe/analysis/tables/2005-tab6.asp>
- Feistritzer, E. (2011). Profile of Teachers in the U.S. 2011. *National Center for Education Information*, 1-88. Retrieved from [http://www.ncei.com/Profile\\_Teachers\\_US\\_2011.pdf](http://www.ncei.com/Profile_Teachers_US_2011.pdf)
- Field, A. (2009). *Discovering Statistics Using SPSS*. Thousand Oaks, California: SAGE Publications, Inc.
- Figlio, D. N. (2002). Can public schools buy better-qualified teachers? *Industrial and Labor Relations Review*, 5(4), 686-699.
- Fuller, F., & Brown, O. (1975). Becoming a teacher. In K. Ryan (ed.), *Teacher Education. 74th Yearbook of the National Society for the Study of Education*, 2, 25-52. Chicago: University of Chicago Press.
- Ganser, T. (1999). Joining forces: Mentors help new teachers adjust to school life. *Schools in the Middle*, 8(7), 28-33.

- Garcia, C. M., Slate, J. R., & Delgado, C. T. (2009). Salary and ranking and teacher turnover: A statewide study. *International Journal of Education Policy and Leadership*, 4(7). Retrieved from <http://www.ijep..org>
- Glazerman, S., Dolfin, S., Bleeker, M., Johnson, A., Isenberg, E., Lugo-Gil, J., . . . Britton, E. (2008). *Impacts of comprehensive teacher induction: Results from the first year of a randomized controlled study* (NCEE 2009-4034). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Gold, Y. (1996). Beginning teacher support. In *Handbook of research on teacher education*. Eds. J. Sukula, T. Buttery, and E. Guyton. New York: Macmillan Library Reference.
- Gratch, A. (2000). The culture of teaching and beginning teacher development. *Teacher Education Quarterly*, 28(4), 121-136.
- Grossman, P., Martin, S. D., Place, N. A., & Valencia, S. W. (2009). Complex interactions in student teaching: Lost opportunities for learning. *Journal of Teacher Education*, 60(3), 304-321. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5030784124>
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (April, 2007). *Do higher salaries buy better teachers?* National Bureau of Economic Research: New York, NY. Retrieved from <http://ssrn.com/abstract=160673>
- Hershberg, T., & Robertson-Kraft, C. (2009). *A grand bargain for education reform*. Cambridge, MA: Harvard Education Press.

- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Education Research Journal*, 499-534.
- Ingersoll, R. M. (2003). *Is there really a teacher shortage?* (Document R-03-4). Seattle: University of Washington, Center for the Study of Teaching and Policy. Retrieved from <http://depts.washington.edu/ctpmail/PDFs/Shortage-RI-09-2003.pdf>
- Inman, D., Marlow, L. (2004) *Teacher retention: Why do beginning teachers remain in the profession?* Retrieved from [http://findarticles.com/p/articles/mi\\_qa3673/is\\_4\\_124/ai\\_n29117809/](http://findarticles.com/p/articles/mi_qa3673/is_4_124/ai_n29117809/)
- Johnson, S. M., Birkeland, S., Kardos, S. M., Kauffman, D., Liu, E., & Peske, H. G. (2001, July/August). Retaining the next generation of teachers: The importance of school based support. *Harvard Education Letter*, 17(4), 6–8. Retrieved from <http://www.hepg.org/hel/article/167>
- Keating, T. P. (2006, October). Four strategies for competing in the recruiting arena. *School Administrator*, 63, 56-58. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5018255944>
- Kent, A. M., & Simpson, J. L. (2009). Preservice teacher institute: Developing a model learning community for student teachers. *College Student Journal*, 43(2), 695-700. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5031479805>
- Kolpack, D. (May, 2011). *Groups take to the airwaves to attract teachers*. The Associated Press. Fargo, ND.

- Korthagen, F. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and teacher education, 20*, 77-97.
- Loeb, S., & Page, M. (2000). Examining the link between teacher wages and student outcomes: The importance of alternative labor market opportunities and non-pecuniary variation. *Review of Economics and Statistics, 82*(3), 393-408.
- Manski, C. F. (1987). *Academic ability, earnings, and the decision to become a teacher: Evidence from the national longitudinal study of the high school class on 1972*. E. A. Wise (Ed.), *Public Sector Payrolls*, pp. 291-312. Chicago: University of Chicago Press.
- Milanowski, A. T., Longwell-Grice, H., Saffold, F., Jones, J., Schomisch, K., & Odden, A. (2009). Recruiting new teachers to urban school districts: What incentives will work? *International Journal of Education Policy and Leadership, 4*(8). Retrieved from <http://www.ijepl.org>
- Moir, E. (1989). Developing support programs for beginning teachers. In *Assisting the Beginning Teacher*. Reston, VA: Association of Teacher Education.
- Moir, E. (1990). Phases of first-year teaching. *New Teacher Center, 2*(2), 5-7. Retrieved from [www.newteachercenter.org/article\\_2.php](http://www.newteachercenter.org/article_2.php)
- Moir, E. (2009). Accelerating teacher effectiveness: Lessons learned from two decades of new teacher induction the best induction programs blend support for novice teachers with expertise from veteran teachers, creating collegial groups that benefit all teachers and all students. *Phi Delta Kappan, 91*(2), 14-20. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5034668733>

- Moir, E. (2010). To the U.S. Senate Committee on Health, Education, Labor and Pensions. *New Teacher Center*. Retrieved from [www.newteachercenter.org/pdfs/ntc\\_moir\\_esea\\_testimony\\_100415.pdf](http://www.newteachercenter.org/pdfs/ntc_moir_esea_testimony_100415.pdf)
- National Center for Education Information. (2005). *Alternative routes to teacher certification: An overview*. Retrieved from <http://ncei.com/Alt-Teacher-Cert.htm>
- National Center for Education Information. (2006). *National teacher day spotlights key issues facing profession*. Retrieved from <http://www.educationnews.org/articles/national-teacher-day-spotlights-key-issues-facing-profession-3.html>
- National Center for Education Information. (2009). *An evaluation of teachers trained through different routes to certification*. Retrieved from <http://ies.ed.gov/ncee/pubs/20094043/pdf/20094043.pdf>
- National Center for Education Statistics. (2001). *Baccalaureate and beyond longitudinal study*. Retrieved from <http://nces.ed.gov/pubs2003/2003165.pdf>
- National Center for Education Statistics. (2005). *The condition of education: Mobility in the teacher workforce*. Retrieved from <http://nces.ed.gov/programs/coe/analysis/tables/2005-tab6.asp>
- National Commission on Teaching and America's Future. (2003). *No dream denied: A pledge to America's children*. Washington, D.C.
- National Education Association. (2008). *Research spotlight on recruiting & retaining highly qualified teachers*. Retrieved from <https://www.nea.org/tools/17054.htm>



- National Education Association. (2009). *Testimony of Dennis Van Roekel*. Retrieved from [https://www.nea.org/assets/docs/HE/10-28-09\\_NEA\\_ASPEN\\_NCLB\\_COMMN-FINAL\(Final\)\\_2\).pdf](https://www.nea.org/assets/docs/HE/10-28-09_NEA_ASPEN_NCLB_COMMN-FINAL(Final)_2).pdf)
- Ng, J. C., & Peter, L. (2009). Should I stay or should I go? Examining the career choices of alternatively licensed teachers in urban schools. *Urban Review: Issues and Ideas in Public Education*, 42(2), 123-142. Retrieved from EBSCOhost.
- Perna, M. C. (2007, February). Creating the home field advantage. *Techniques*, 82, 22-29. Retrieved from Questia database: <http://www.questia.com/PM.qst?a=o&d=5036824298>
- Pytel, B. (2007). *Teacher turnover costs: Out of control turnover is costing billions*. Retrieved from <http://www.suite101.com/content/teacher-turnover-costs-a24490>
- Texas Education Agency. (2009). *Academic excellence indicator system*. Retrieved from <http://ritter.tea.state.tx.us/cgi/sas/broker>
- Texas Education Agency. (2010). *Becoming a classroom teacher in Texas*. Retrieved <http://www.tea.state.tx.us/index2.aspx?id=5352>
- Texas Education Agency. (2010). Comparable out-of-state tests. Retrieved from <http://www.tea.state.tx.us/index4.aspx?id=5744>
- U.S. Department of Education. (2011). *Improving basic programs operated by local educational agencies (Title I, Part A)*. Retrieved from <http://www2.ed.gov/programs/titleiparta/index.html>
- Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54, 143-178.

- Weiss, E. M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention. *Teaching and Teacher Education, 15*(8), 861-879.
- Whitaker, S. D. (2000). What do first-year special education teachers need? *Teaching Exceptional Children, 33*(1), 28-36.
- Wiersma, W. & Jurs, S. (2009). *Research methods in education*. Boston, MA: Pearson.
- Winter, P. & Melloy, S. (2005). Teacher recruitment in a school reform state: Factors that influence applicant attraction to teaching vacancies. *Educational Administration Quarterly, 41*(2), 349-372.
- Zeichner, K. M. 2003. The adequacies and inadequacies of three current strategies to recruit, prepare, and retain the best teachers for all students. *Teachers College Record 105*(3), 490-519.

APPENDIX A

SAMPLE DATA COLLECTION GRID



APPENDIX B

UNIVERSITY OF HOUSTON

CONSENT TO PARTICIPATE IN RESEARCH

Appendix B  
University of Houston  
Consent to Participate in Research

UNIVERSITY of **HOUSTON**  
DIVISION OF RESEARCH

December 7, 2011

Mrs. Selina Chapa  
c/o Dr. Steven Busch  
Educational Leadership & Cultural Studies

Dear Mrs. Selina Chapa,

Based upon your request for exempt status, an administrative review of your research proposal entitled "Certification Routes and Teacher Retention: An Analysis of Teacher Longevity" was conducted on December 7, 2011.

In accordance with institutional guidelines, your project is exempt under **Category 4**.

As long as you continue using procedures described in this project, you do not have to reapply for review.\* Any modification of this approved protocol will require review and approval by the Committee.

If you have any questions, please contact Alicia Vargas at (713) 743-9215.

Sincerely yours,



Dr. Scott B. Stevenson  
Research Compliance

\*Approvals for exempt protocols will be valid for 5 years beyond the approval date. Approval for this project will expire **November 1, 2016**. If the project is completed prior to this date, a final report should be filed to close the protocol. If the project will continue after this date, you will need to reapply for approval if you wish to avoid an interruption of your data collection.

Protocol Number: 12177-EX

VITA

**Selina H. Chapa**

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I have worked with students in various capacities, including as a teacher, as an Assistant Principal, as a Principal and as a Director of Human Resources. These experiences, along with my education and professional development, have equipped me with the ability and desire to successfully guide district leaders, teachers, parents and students to success.

**Education**

**Degrees:**

- Ed.D. University of Houston, May 12, 2012, Educational Leadership
- M.S. Texas A&M International, July 28, 1995, Administration
- B.A. Texas A&I University, December 12, 1986, Elementary Education

**State Certifications**

- The Superintendent (Applied)
- Mid-Management Administrator Grades (PK-12)
- Elementary Reading Grades (1-8)
- Elementary Self-Contained Grades 91-8)
- Bilingual/ESL Grades (1-8)

**Summary of Skills**

**Leadership Skills:**

- Facilitate planning and implementation of strategic plans to improve teaching and learning
- Manage financial expenditures and personnel
- Inspire and lead professionals
- Communicate and collaborate with the educational community
- Design and deploy a safe and effective learning environment
- Possess the knowledge of special programs to ensure the application of relevant and rigorous instructional designs

**Languages:** Fluent in English and Spanish

**Technology Proficiency:** Word, Excel, PowerPoint, Photo Story, Publisher, SASI, SMS, Advantage, Teachscape, SearchSoft

**Ed.D. Thesis**

Title: What Leaders Need to Know About Teacher Retention

Abstract Summary: The research was executed with a focus on various certification routes as measured by teacher retention. Specifically, an analysis was conducted to determine if an association was present among the variables of interest and the desired outcome. In this study, the variables of interest were former district student teachers and other new hires, alternative certified teachers and university based programs, and teachers certified in state as opposed to out of state certification. Two statistical models were used to obtain the results: Pearson Chi Square Tests and an Ordered Logistical Regression. The results revealed that former student teachers have a significant effect on retention if employed in the same district.

## Education Experience

### Director of Human Resources

2007-present

Aldine ISD, Department of Human Resources, 15010 Aldine Westfield, Houston, TX 77072

- Functioned as the project director for districts reform initiatives
- Interviewed and selected highly-qualified and high quality staff
- Developed and implemented financial planning to ensure alignment
- Designed and presented professional development for the student teacher, aspiring assistant principals, assistant principals, and principals
- Served as the district liaison for student teaching assignments
- Collected, disaggregated, and analyzed student data to increase student achievement
- Awarded grant and served as the director for the mentor grant initiative
- Staff Elementary and Pre-Kinder campuses
- Support campus principals
- Supervised the district mentor program
- Maintain accounting records and compliance as the district level immigration executive
- Communicated effectively with applicants, district personnel and university partners
- Provided professional development sessions for various universities
- Represented the Human Resources Department as a member of the Vertical Education Advisory Committee
- Participate in the District Education Advisory Committee
- Directed and implemented the district Homegrown Initiative
- Complied with all federal, state, and local laws, and district initiatives

### Principal

2003-2007

Aldine ISD, Sammons Elementary, 2301 Frick Road, Houston, TX 77038

- Designed and implemented the school functions and its programs, such as the academic strategic plan, curriculum, budget allocations, marketing campaign, and staffing
- Developed and implemented financial planning to ensure alignment
- Ensured that the functioning of the school remained consistent with the mission
- Design and deploy procedures for emergencies
- Selected and hired highly-qualified and high quality staff members
- Trained, coached, and mentored faculty
- Developed and implemented plans and programs to increase student achievement
- Designed and presented professional development for the school faculty
- Appraised faculty using the Professional Development and Appraisal system
- Conducted after school tutorial classes
- Collected, disaggregated, and analyzed student data to increase student achievement
- Designed policies and strategies to maintain a safe campus
- Established and enforced discipline procedures
- Communicated effectively with parents, district personnel and visitors to campus
- Integrated use of technology applications with established best practices
- Led the district as a pilot school for the Parent Portal
- Instituted feeder school teacher and administrator collaboration
- Trained and mentored new principals
- Complied with all federal, state, and local laws, in addition to Aldine ISD board policies and district initiatives



**Assistant Principal**

1996-2003

Aldine ISD, Dunn Elementary, 2003 W. W. Thorne, Houston, TX 77073

- Organized Family Reading and Math Nights
- Designed and presented professional development for the school faculty
- Supported and coached teachers in the areas of curriculum, instruction, and classroom management
- Appraised faculty using the Professional Development and Appraisal system
- Developed and refined campus scope and sequence of curriculum to align to district and state mandated objectives
- Structured and implemented new campus Bilingual Program
- Implemented and supervised all special programs including Section 504, Special Education, BIL/ESL, Dyslexia
- Instituted and directed Professional Learning Communities
- Conducted tutorial classes on weekends in Math and English
- Testing Coordinator for all state and district-mandated testing
- Delivered district level professional development

**Assistant Principal**

1995-1996

United ISD, Prada Elementary, 510 Soria Drive, Laredo, TX 78046

- Conducted formal and informal teacher observations to evaluate teacher effectiveness
- Organized multi-grade level meetings
- Analyzed benchmark data to determine instructional needs
- Structured and supervised Summer School
- Planned and presented professional development sessions
- Supported and coached teachers in the areas of curriculum, instruction, and classroom management
- Developed and refined scope and sequence of curriculum to align to state-mandated objectives
- Actively participated as an Attendance Committee member
- Served on the Action Committee
- Supervised the LPAC Coordinator
- Participated as a member of the Grant Writing Committee

**Teacher**

1986-1995

United ISD, 201 Lindenwood Drive, Laredo, TX 78045

- Lead teachers as the Grade Level Chair
- Developed relevant and vigorous lesson plans, activities, and assessments aligned to TEKS objectives
- Effectively managed a classroom to promote learning and achievement
- Worked cooperatively with faculty and administration on Shared Decision Making Committee
- Designed and presented professional development sessions to support colleagues
- Communicated effectively with students, parents and administrators
- Maintained student, class and school records consistently
- Served as a teacher mentor
- Supervised student teachers
- Awarded Teacher of the Year 1994-1995

**Professional Affiliations**

- Texas Association of School Personnel Administrators (TASPA)
- American Association of School Personnel Administrators (AASPA)
- Houston Area Teacher Council (HATC)
- Center for Professional Development of Teachers (CPDT) Executive Advisory Board Member
- Sam Houston Innovative Partnership with Schools (SHIPS)
- Brazos Valley Cooperative Teacher Education Center (BVCTEC)

## Recommendations

Dr. Wanda Bamberg, Superintendent of Schools  
Aldine Independent School District  
[wbamberg@aldine.k12.tx.us](mailto:wbamberg@aldine.k12.tx.us)

Gloria Cavazos, Assistant Superintendent of Human Resources  
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Wilbert Johnson, Area Superintendent (Retired)  
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