

**THE IMPACT OF AN ALTERNATIVE CERTIFICATION PROGRAM ON  
TEACHER RETENTION IN SELECTED TEXAS PUBLIC SCHOOL  
DISTRICTS AS REPORTED BY PERSONNEL IN EDUCATION  
SERVICE CENTER, REGION 20, TEXAS**

A Dissertation

by

JEFFERY L. GOLDHORN

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2005

Major Subject: Educational Administration

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Approved by:

Chair of Committee,	Clifford L. Whetten
Committee Members,	Homer Tolson
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## **ABSTRACT**

The Impact of an Alternative Certification Program on Teacher Retention in Selected  
Texas Public School Districts as Reported by Personnel in Education Service  
Center, Region 20, Texas. (August 2005)

Jeffery L. Goldhorn, B.A., University of Northern Iowa;  
M.Ed., Trinity University

Chair of Advisory Committee: Dr. Clifford L. Whetten

The purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas, as reported by Education Service Center, Region 20, Texas. Demographic variables were used to determine association with retention rates. Additionally, the study provided qualitative data and information that assisted in explaining the retention rates of Teacher Orientation and Preparation Program (TOPP) participants.

A mixed methods research, utilizing logistic regression and a survey interview instrument, was used to determine retention rates as well as variables that influence retention rates of TOPP participants. A total of 537 TOPP participants were analyzed. Additionally, a sub-sample of 10 participants was interviewed.

The study provides an analysis of the following demographic variables: ethnicity, gender, current grade type (elementary – PK-5, middle school – 6-8, and high school – 9-12), and current socioeconomic level (as determined by the percent of children who qualify for free and reduced lunch programs). Of the four demographic variables analyzed, none was found to have an association with retention rates.

A number of other variables were found to have an impact on the retention of the teachers interviewed in the sub-sample. Those variables included personal commitment to the field of education or the kids, a mentor, team support, administrative support, and new teacher induction programs.

The implications from the findings of this research study are numerous and can have an effect in areas such as teacher hiring practices, teacher retention practices, and teacher preparation programs. It is important to note that the researcher recommends that expert opinions be sought and further research be conducted on teacher retention and teacher preparation programs before any recommendations for change are made.

## DEDICATION

This dissertation is dedicated to my loving, understanding, and supportive family. This dream could not have become a reality without their love and encouragement. This project is for them as much as it is for me.

- To my wife, Veronica, for the unending support and encouragement. With two babies at home, it was not an easy road. For all she has done to allow me to pursue my dream, I say, “thank you, amor.”
- To my girls, Ally and Sophia, for allowing me to hide away in my office. Their random visits to the office with dollies in tow gave me excuses to take breaks. No more school for daddy, girls!
- To my parents, Neil Goldhorn and Nancy Dutler, for providing the love and support throughout my life. I thank both of them for the encouragement and positive thoughts from Iowa. I needed them.

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## TABLE OF CONTENTS

	Page
ABSTRACT .....	iii
DEDICATION .....	v
ACKNOWLEDGEMENTS .....	vi
TABLE OF CONTENTS .....	viii
LIST OF TABLES .....	x
LIST OF FIGURES.....	xii
 CHAPTER	
I      INTRODUCTION .....	1
Background of the Study .....	1
Statement of the Problem .....	3
Purpose of the Study .....	4
Research Questions .....	5
Operational Definitions .....	5
Assumptions .....	7
Limitations .....	7
Significance of the Study .....	8
Organization of the Dissertation.....	8
II     REVIEW OF THE LITERATURE .....	10
Teacher Shortage .....	10
Teacher Retention .....	22
Teacher Certification.....	25
III    METHODOLOGY .....	45
Population.....	46
Instrumentation.....	47
Procedures .....	52
Data Analysis .....	53



## TABLE OF CONTENTS (continued)

CHAPTER	Page
IV     RESULTS OF THE STUDY .....	55
Demographic Data.....	56
Demographic Data: Crosstabulations.....	62
Demographic Data: Sub-Sample .....	80
V     SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS .....	91
Summary .....	91
Conclusions .....	94
Recommendations .....	99
REFERENCES.....	103
APPENDIX A .....	110
APPENDIX B .....	112
APPENDIX C .....	114
APPENDIX D .....	116
APPENDIX E.....	118
VITA .....	120

## LIST OF TABLES

TABLE		Page
2.1	One-Year Attrition Rates for Texas Public School Teachers (1995-1996 through 2001-2002) .....	20
2.2	Attrition Rates: Alternative Route vs. Traditional Route.....	21
4.1	Frequencies and Percentages of Grade Types of Population (Year 1) .....	57
4.2	Frequencies and Percentages of Grade Types of Population (Year 3) .....	58
4.3	Frequencies and Percentages of Socioeconomic Level of Campus (Year 1) .....	59
4.4	Frequencies and Percentages of Socioeconomic Level of Campus (Year 3) .....	60
4.5	Frequencies and Percentages of Demographic Information Regarding Gender .....	60
4.6	Frequencies and Percentages of Demographic Information Regarding Ethnicity.....	61
4.7	Frequencies and Percentages of Retention Data .....	62
4.8	Frequencies and Percentages of Participants by Intern Year and Gender .....	63
4.9	Frequencies and Percentages of Participants by Intern Year and Ethnicity .....	63
4.10	Frequencies and Percentages of Participants by Intern Year and Socioeconomic Status of Campus (Year 1).....	65
4.11	Frequencies and Percentages of Participants by Intern Year and Grade Types (Year 1).....	66
4.12	Frequencies and Percentages of Participants by Gender and Socioeconomic Status of Campus (Year 1).....	67

### LIST OF TABLES (continued)

TABLE		Page
4.13	Frequencies and Percentages of Participants by Gender and Grade Type (Year 1) .....	68
4.14	Frequencies and Percentages of Participants by Gender and Grade Type (Year 3) .....	69
4.15	Frequencies and Percentages of Participants by Ethnicity and Socioeconomic Level of Campus (Year 1) .....	70
4.16	Frequencies and Percentages of Participants by Ethnicity and Grade Type (Year 1) .....	71
4.17	Frequencies and Percentages of Participants by Ethnicity and Grade Type (Year 3) .....	73
4.18	Frequencies and Percentages of Participants by Teacher Retention and Gender .....	74
4.19	Frequencies and Percentages of Participants by Teacher Retention and Ethnicity .....	75
4.20	Omnibus Tests of Model Coefficients .....	77
4.21	Model Summary .....	78
4.22	Classification Table <sup>a</sup> .....	78
4.23	Variables in the Equation .....	79
4.24	Frequencies and Percentages of Participants in Sub-sample by Gender, Ethnicity, Grade Type, and Socioeconomic Status of Campus .....	80

**LIST OF FIGURES**

FIGURE		Page
2.1	Student Population and Projected Student Population in the United States.....	15

## CHAPTER I

### INTRODUCTION

#### Background of the Study

Fielder and Haselkorn (1999) estimated that over the next ten years, approximately 200,000 new teachers will need to enter the field to meet the demands of the educational system in the United States. Some of the factors that are creating this great need include increasing school enrollments, attempts to reduce teacher-to-student ratios, and an alarmingly high increase in teacher attrition and retirement rates (Cortez, 2001). Between 1997 and 2009, the enrollment in public schools is projected to increase by 4% to 48.1 million (Olson, 2000a). The average age of a teacher in America today is 44 years (Olson, 2000a). According to Olson, districts are anticipating high rates of retirement in the near future as a result of this increasingly high average age.

The teacher demand in Texas is particularly alarming. The State Board for Educator Certification (SBEC) indicated in 1998 that Texas had a 44,000-teacher shortage at the start of the school year (Huling, 1998). During the 2000-2001 school year, personnel from the Texas A&M Institute for School-University Partnerships (1999) reported that Texas schools needed to hire 39,652 teachers. Fuller (2002) predicted a shortage of 50,000 teachers by 2010. However, Texas universities produce approximately 15,000 teachers per year (Linton & Kester, 2002).

The result of the demand for certified candidates in Texas requires creative recruitment and retention tactics. Through a review of the literature, researchers have

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The style for this dissertation follows that of *The Journal of Educational Research*.

Identified several effective recruitment and retention tactics that include increased salaries and/or benefits, induction programs, mentor programs, scholarship and loan opportunities, signing bonuses, and alternative certification programs (Cortez, 2001; Olson, 2000b, 2000c; Scherer, 1999). Each of these recruitment and retention tactics has some degree of effectiveness. Alternative certification programs have been effective in recruiting people to the field of education. This is supported by the fact that 41 states are now utilizing such approaches to attract teachers (Berry, 2001). Olson (2000c) estimated that approximately 80,000 individuals have been licensed nationally to teach through alternative certification programs.

There are numerous variations of alternative certification programs. Darling-Hammond (1990) reported that the alternatives to traditional certification can fall into one of three categories. First, alternative certification can mean alternative ways to meet teacher certification requirements. An example of this type of certification might consist of a graduate level master's degree. A second type of alternative certification might consist of alternative standards for certification. This type of certification might involve the completion of certification simultaneously during a teaching career or a reduced level of training. The final type of alternative certification Darling-Hammond discussed was alternative state certification. This last type of certification permits the state to allow the local employees or school districts to train and certify their own candidates.

Berry (2001) maintained that while there is a need for alternative certification programs due to teacher shortages, there is also a need to assure that these programs are of a high standard. Berry suggested that high quality alternative certification programs

contain several key elements. First, they must provide a strong academic and pedagogical component. Secondly, they must include an intensive field experience in an internship or student teaching. Next, a high quality alternative certification program requires all teachers to meet all of the state's standards for subject matter and teaching knowledge. Lastly, all teachers must meet the state's teacher quality standards.

In Texas, the Teacher Orientation and Preparation Program (TOPP) is a State Board of Educator Certification approved alternative certification program that is coordinated by Education Service Center 20, in San Antonio (Texas Region 20 Education Service Center, 2002). The objective of TOPP is "to provide for the certification of individuals who meet specific requirements and who complete an internship in a public or charter school in the region and to provide certified teachers a means to gain additional certification(s)" (Texas Region 20 Education Service Center, 2002, p. 1).

The program is field-based and emphasizes the integration of theory and practice (Texas Region 20 Education Service Center, 2002). The four major components of the program include university courses, classroom observations, professional development sessions, and a one-year paid supervised internship. The TOPP components identified by Region 20 personnel certainly align with the qualities Berry (2001) suggests must be present in a high-quality alternative certification program.

### **Statement of the Problem**

The State Board of Educator Certification reported that there is a 44,000-teacher shortage in the state of Texas (Huling, 1998). Texas universities are currently producing

15,000 teachers per year (Linton & Kester, 2002). The result is a shortage of teachers that must draw on recruitment efforts as well as alternative certification programs (Berry, 2001). An alternative certification program is one that offers alternate routes to teacher certification for individuals who “possess a bachelor’s degree, pass a competency examination and a background check, and complete a compressed training program that includes intensive, hands-on experience” (Finn & Madigan, 2001, p. 29).

Alternative certification programs in Texas were authorized in 1984 by the 68<sup>th</sup> Legislature in House Bill 72. One such program coordinated by Education Service Center, Region 20, is the Teacher Orientation and Preparation Program (TOPP). The objective of TOPP is to provide for the certification of individuals who meet state requirements and complete an internship in a public or charter school in the region (Texas Region 20 Education Service Center, 2002).

There is a need to determine if alternative certification programs such as TOPP impact teacher retention. Additionally, there is a need to identify the demographic characteristics that are associated with high rates of retention.

### **Purpose of the Study**

The purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas, as reported by personnel and records from Education Service Center, Region 20, Texas. Demographic variables and retention rates were analyzed using logistic regression. Additionally, qualitative data and information that assisted in explaining the retention rates of TOPP participants were provided.



### **Research Questions**

The following questions were addressed in the study:

1. Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?
2. What variables influence the retention of teachers who are certified through the TOPP as reported by selected teachers who have completed the TOPP in Region 20, Texas?

### **Operational Definitions**

*Alternative certification program:* A program that offers alternate routes to teacher certification for individuals who “possess a bachelor’s degree, pass a competency examination and a background check, and complete a compressed training program that includes intensive, hands-on experience” (Finn & Madigan, 2001, p. 29).

*Education Service Center, Region 20:* An organization that serves one of 20 geographically delineated areas of Texas, Region 20 located in San Antonio whose primary responsibilities include: (a) assisting school districts in improving student performance in each region in the system; (b) enabling school districts to operate more efficiently and economically; and (c) implementing initiatives assigned by the legislature or the commissioner (Texas Education Code, 1997).

*Grade type:* The grade spans assigned to specific campuses: elementary (E): prekindergarten – 5, middle school (M): 6-8, high school (H): 9-12.

*Impact:* The effect or impression of one thing upon another (Berube, 1985).

*Selected demographic variables:* The participants' ethnicity, gender, grade type (elementary – PK-5, middle school – 6-8, and high school – 9-12), and socioeconomic level (as determined by percent of children who qualify for free and reduced lunch programs) of campus at which currently employed.

*Selected Texas public school districts:* The public school districts identified through a data query identifying TOPP participants through the use of Region 20 TOPP databanks and Public Education Information Management System (PEIMS). The school districts in which the identified teachers are working will be identified as the “selected districts.”

*Socioeconomic level of campus:* A high poverty campus is one with 50% or more economically disadvantaged students as determined by qualification for free and reduced school lunch program. Low poverty campus is one with less than 50% economically disadvantaged students as determined by qualification for free and reduced school lunch program.

*Teacher:* The individual responsible for guiding and directing students in the general educational subject matter in school (Texas Education Agency, 1991).

*Teacher Orientation and Preparation Program (TOPP):* A State Board of Educator Certification approved alternative teacher certification program coordinated in Education Service Center, Region 20 (Texas Region 20 Education Service Center, 2002).

*Teacher retention:* The intern who is teacher of record in the fall of year 1 and is still employed as teacher of record in the fall of year 3.

*Texas Education Agency:* A state governed education regulatory agency in Texas.

### **Assumptions**

For the purpose of this study, the following assumptions were made:

1. The researcher was impartial in collecting and analyzing the data.
2. The respondents surveyed understood the scope of the study and the language of the interview, were competent in self-reporting, and responded objectively and honestly.
3. Interpretation of the data collected accurately reflected the intent of the respondent.
4. The methodology proposed and described offered the most logical and appropriate design for this particular research project.

### **Limitations**

The following limitations were identified:

1. The scope of this study was limited to the independent school districts in Region 20, Texas, that employed teachers who were certified through the Teacher Orientation and Preparation Program in Region 20, Texas.
2. The study was limited to the information acquired from literature review and survey instruments.

3. The findings from this study may not be generalized to any group other than the independent school districts in Region 20, Texas, employing participants of the Teacher Orientation and Preparation Program in Region 20, Texas.

### **Significance of the Study**

Nearly 30% of teachers nationwide leave the profession within the first three years (Scherer, 1999). For this reason, it is essential that the field of education develop strategies to attract and retain people in the field (Berry, 2001). One such approach is that of alternative certification programs (Darling-Hammond, 1990). Berry (2001) indicated that 41 states are currently utilizing alternative certification programs. With the large number of states currently utilizing alternative certification programs, there is a need to determine if teachers who complete alternative certification programs are staying in the field of education and what the attitudes and perceptions are of those who stay.

The retention rate of teachers who completed an alternative certification program was examined. The examination of selected demographic variables offered some insight into the existence of specific demographic variables that tended to positively and negatively impact teacher retention rates. Information from the data collection and analysis provided insight into the retention rate of alternatively certified teachers. Additionally, information related to the attitudes and perceptions of alternatively certified teachers in regards to their retention in the field of education was provided.

### **Organization of the Dissertation**

This dissertation is divided into five major chapters. Chapter I contains an introduction, statement of the problem, purpose of the study, operational definitions,

assumptions and limitations, and the significance of the study. A review of the literature is found in Chapter II. In Chapter III, the researcher describes the methodology employed, including the population, instrumentation, procedures, and data analysis. Chapter IV contains the analysis and comparison of the data collected in the study. Finally, in Chapter V, the researcher provides a summary of the findings from this study and conclusions and implications from those findings. Recommendations for practices and directions for future research are addressed in this chapter as well.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

A review of the current literature that supports the study of the impact of alternative certification programs on teacher retention is provided in this chapter. The literature is organized into the following categories: teacher shortage, teacher retention, and teacher certification.

#### **Teacher Shortage**

##### *No Child Left Behind Act: A National Perspective*

The Elementary and Secondary Education Act of 1965 as amended by Public Law 107-110 – No Child Left Behind (NCLB) Act, provides the guidance and legal requirements for ensuring that all children achieve the same high standards, (Texas Education Agency, 2002). The U.S. Department of Education identifies five goals that focus on student achievement. The goals include the following:

1. By 2013, all students will reach high standards, at a minimum attaining proficiency or better in reading/language arts and mathematics.
2. All limited English proficient students will become proficient in English and reach high academic standards, at a minimum attaining proficiency or better in reading/language arts and mathematics.
3. By 2005-2006, all students will be taught by highly qualified teachers.
4. All students will be educated in learning environments that are safe, drug-free, and conducive to learning.
5. All students will graduate from high school (Texas Education Agency, 2002).

Components of the No Child Left Behind Act of 2001 that impact teacher certification include Title I, Part A and Title II, Part A. Embedded throughout each of these pieces of the legislation is reference to “highly qualified teachers.” The emphasis is placed on not only recruiting, but also retaining highly qualified teachers.

The No Child Left Behind Act requires states and Local Education Agencies to have a plan for all teachers in core academic subject areas to become “highly qualified” by the end of the 2005-2006 school year. Teachers hired after the first day of instruction of school year 2002-2003 who teach in the core academic subject areas in a Title I, Part A program must meet the “highly qualified” standard when hired (Texas Education Agency, 2003a). In order to meet the “highly qualified” standard set forth by the No Child Left Behind Act, a teacher must have: (a) at least a bachelor’s degree, (b) full state certification, and (c) demonstrated competency in the core academic subject area assigned (Texas Education Agency, 2003b). The only exception to this rule concerns charter schools where the No Child Left Behind Act defers to state law concerning certification requirements for charter schools.

The purpose of Title I, Part A is to ensure that all children, particularly low-achieving children in the highest-poverty schools, have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. (Texas Education Agency, 2002, p. 8)

The No Child Left Behind Act of 2001 states that any teacher hired after the first day of the 2002-2003 school year to teach in a Title I, Part A program must be highly qualified (Texas Education Agency, 2002). In addition, the law requires all local education

agencies to have a plan to ensure that all teachers in the local education agency teaching in core academic subjects are highly qualified by the end of the 2005-2006 school year.

Title II, Part A is referred to as “Teacher and Principal Training and Recruiting” and according to the Texas Education Agency (2002):

The purpose of Title II, Part A, is to increase the academic achievement of all students by helping schools and school districts improve teacher and principal quality and ensure that all teachers are highly qualified. Through the program, local educational agencies receive funds on a formula basis. Local education agencies that receive funds are held accountable to the public for improvements in academic achievement. Title II, Part A provides local education agencies with the flexibility to use these funds creatively to address challenges to teacher and paraprofessional quality, whether they concern teacher preparation and qualifications of new teachers and paraprofessionals, recruitment and hiring, induction, professional development, teacher retention, the need for more capable principals and assistant principals to serve as effective school leaders, or reducing class size. (p. 190)

#### *National Teacher Shortage and Teacher Attrition*

As indicated, one of the goals identified through the No Child Left Behind legislation requires that all students “be taught by highly qualified teachers” (Texas Education Agency, 2002). This requirement adds additional strain to an already strained pool of potential teachers. A review of the data suggests that a teacher shortage is eminent. Nationally, the number of teachers who are produced is adequate to fill the need (Berry, 2000). However, only 60% of newly prepared teachers actually enter the teaching profession after graduation (Berry, 2000). Researchers’ estimates suggest that over the next ten years, there will be a demand for over two million teachers nationwide (Howard, 2003). That amounts to approximately 200,000 teachers per year for ten years (Hope, 1999).



Hope also stated that there will only be approximately 100,000 new teachers entering the field each year over the next ten years and that a percentage of them will not stay in the education field. Hope suggested that as many as 40% of those 100,000 entering the teaching field will leave within the first two years. Other researchers have suggested that between 20 and 50% of all teachers will leave the profession within their first five years in the profession (Colley, 2002). The possibility of placing a highly qualified teacher in every classroom in America is diminished due to projected shortages that are associated with large numbers of retiring teachers, projected enrollment increases, teacher attrition, and new classroom policies (Howard, 2003; Ingersoll, 2003b; Lucksinger, 2000).

### **Retiring Teachers**

Lucksinger (2000) stated that, “the Baby Boom generation, born between 1940 and 1960, has impacted teaching forces in a variety of ways over the years” (p. 11). The high number of births that occurred after World War II increased the number of students entering the public schools in 1950s, 1960s, and 1970s by millions of children. As this generation ages, its impact is evident throughout the education system. According to Lucksinger (2000), this population moved through the education system as students and then many eventually continued in the education system as teachers and administrators. Many of the people in this generation are now at retirement age and the impact is evidenced through the current teacher shortage. Howard (2003) reported that as teachers of the baby boom generation reach their 40s and 50s and begin to retire, the nation will inevitably face the largest number of teacher retirements.

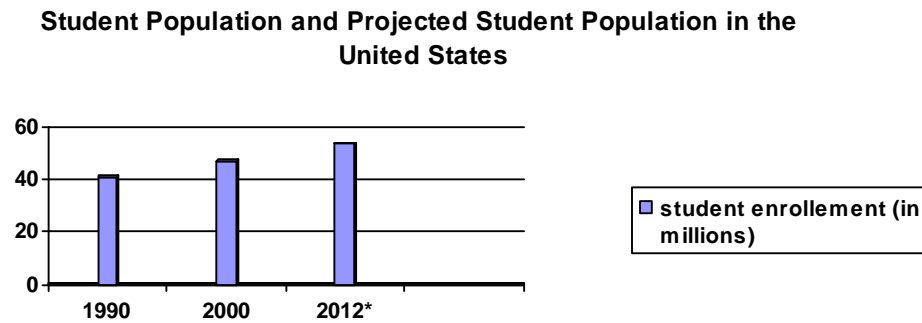
According to Howard (2003), approximately 25% of public school teachers are over the age of 50 and nearly 50% are expected to retire within the next decade.

Ingersoll (2003b) stated that currently retirement accounts for approximately 13% of the total teacher turnover. Howard contends that the baby boom generation will likely increase this percentage.

### **Projected Enrollment Increases**

Howard (2003) stated that while an expected increase in teacher retirement is eminent, it will coincide with an increase in student enrollment. In 1990, there were 41.2 million students enrolled in elementary and secondary schools and in 2000, there were 47.2 million students enrolled in the same grade levels (National Center for Educational Statistics [NCES], 2002). According to the National Center for Educational Statistics, the student enrollment in elementary is projected to increase to 53.7 million by 2012. Howard (2003) stated that the increases in student populations are most prevalent in California, Nevada, Florida, New York, and Texas, where a greater percentage of the students are culturally and linguistically diverse and attending schools in larger urban settings. Figure 1 depicts data related to the growing student population in the United States.

Figure 1. Student population and projected student population in the United States.



### Teacher Attrition

Attrition is another contributing factor of the current teacher shortage. The annual departure rate for teachers is between 14 and 17%, while other professions average approximately 11% per year (Howard, 2003; Ingersoll, 2003b). Howard (2003) reported that high attrition rates can be attributed to high levels of stress, unsatisfactory organizational conditions, lack of administrative support, perceived discipline problems, cultural mismatches with students, and a variety of sociocultural factors. Ingersoll's (2003b) research attributed the attrition rates to school staffing action, family or personal reasons, the desire to pursue other career opportunities, and job dissatisfaction.

According to Ingersoll (2003a), approximately one-third of America's teachers leave teaching sometime during their first three years of teaching, while almost half leave within the first five years. Ingersoll (2001) suggested that attrition rates are highest in low-income urban schools. In the same study, Ingersoll (2001) found the turnover rate for teachers in high-poverty schools was 50% higher than in low-poverty schools. Darling-Hammond (2000) attributed higher attrition rates in high-poverty schools to the

following factors: lower salary, access to fewer resources, poorer working conditions, higher stress levels associated with working with students and families with a wide array of needs, and higher percentage of teachers who are underprepared and unsupported.

### **Classroom Policies**

According to Howard (2003), a number of states have mandated smaller class sizes in an attempt to improve the quality of education for students. As a result, schools were forced to hire a number of teachers who, in many cases, were unprepared and non-certified. One ramification of the mandate for smaller class sizes, was an increase in the demand for teachers. This, too, has contributed to the current teacher shortage.

Another classroom policy that contributed to the attrition rate of teachers is related to classroom discipline and lack of support by the campus administration (Ingersoll, 2003b). The data suggested that increased support from school administration and a reduction of discipline problems both positively impacted the retention of teachers (Ingersoll, 2003b).

The factors outlined are major contributors of the current teacher shortage. Some additional contributing factors included changes in technology, more women in the workforce, more job opportunities for talented individuals, and cultural changes (Luckesinger, 2000).

### *No Child Left Behind as It Relates to Texas*

While the No Child Left Behind Act requires “highly qualified” teachers, the United States Department of Education allows each state to define “highly qualified.”

As previously outlined, in order to meet the “highly qualified” standard set forth by the No Child Left Behind Act, a teacher must have: (a) at least a bachelor’s degree, (b) full state certification, and (c) demonstrated competency in the core academic subject area assigned (Texas Education Agency, 2003b). In the state of Texas, the State Board for Educator Certification (SBEC) is responsible for overseeing the certification process. In October of 2003, the Texas Education Agency published the state’s interpretation of the NCLB requirements in the *NCLB Bulletin* (Texas Education Agency, 2003b).

New elementary teachers are required to demonstrate competency by passing the Elementary Comprehensive Examination for Certification of Educators in Texas (ExCET) or the grade-level appropriate Texas Examination of Educator Standards (TExES). New secondary teachers must demonstrate competency by passing the applicable ExCET or TExES content exam for a certification area appropriate to the teaching assignment or have an academic major in the core academic subject areas in which they teach (Texas Education Agency, 2003b).

No Child Left Behind legislation does not allow for exceptions or alternatives in meeting the requirement for a bachelor’s degree or full state certification. However, each state is allowed to establish a “high, objective, uniform standard of evaluation (HOUSE) by which teachers that are not new to the profession can demonstrate competency in the core academic subject areas” (Texas Education Agency, 2003b, p. 1). According to the Texas Education Agency (2003b), the alternative approach that the state of Texas has adopted includes two options for elementary teachers (grades PK-6) and one option for secondary teachers (grades 7-12).

The first option experienced elementary teachers can utilize to demonstrate competency includes the following: The teacher has at least one creditable year of teaching experience; and the teacher has a minimum of 24 points derived from teaching experience (1 year = 1 point with a maximum of 12 points); college coursework in English/Language Arts, Math, Science, and/or Social Studies (1 college hour = 1 point); and/or professional development that meets the standards set by the State Board for Educator Certification Continuing Professional Education (CPE) requirements (15 CPE clock hours = 1 point); and each of the subjects (English/Language Arts, Math, Science, and/or Social Studies) is represented in the 24 hours.

The second option experienced elementary teachers can utilize to demonstrate competency requires the teacher to have one creditable year of teaching experience and college coursework equivalent to a college major in the subject to be taught.

Experienced secondary teachers can demonstrate competency in the core subject areas by demonstrating one creditable year of teaching experience in the subject area to be taught, or a closely related field, and having a minimum of 24 points (with at least 6 in the subject to be taught). The 24 points can be accrued through the following: (a) experience teaching at the secondary level in the subject to be taught or a closely related field (1 year = 1 point with a maximum of 12 points), (b) college coursework in the subject to be taught or in a closely related field (1 college hour = 1 point); and/or (c) professional development that meets the standards set by the State Board for Educator Certification Continuing Professional Education (CPE) requirements (15 CPE clock hours = 1 point).

The state of Texas requires each State Education Agency to assure that all teachers meet the highly qualified criteria. Additionally, each State Education Agency must submit this data annually. This requirement went into effect beginning with the 2004-2005 school year (Texas Education Agency, 2003c).

### *Texas Teacher Shortage and Attrition*

In the state of Texas, approximately 75% of the demand for new teachers is a result of teacher attrition (State Board of Educator Certification, 2001). In the same study, State Board for Educator Certification personnel indicated that in the year 1996, 47% of the demand for new teachers was attributed to teacher attrition associated with beginning teachers. According to the State Board of Educator Certification (2001) personnel, Texas' demand for teachers averaged approximately 32,000 per year for the years 1996-2001. Each year of this five-year period showed a slight increase, with the most recent year of 2001 demanding 38,000 new teachers to fill the teacher vacancies in the state of Texas (State Board of Educator Certification, 2001). In Texas, the beginning teacher turnover rate is higher than the average for all teachers (Texas Center for Educational Research, 2000).

School industry turnover models based on teacher salaries indicate that Texas may be spending between \$329 million to \$2.1 billion on teacher turnover each year (State Board of Educator Certification, 2001). Turnover costs associated with more experienced teachers are higher than the costs associated with beginner and novice teachers. However, since the state is losing beginning teachers at higher rates, the result is high costs for the state (Texas Center for Educational Research, 2000). While these

costs may never be eliminated, they can be reduced through the implementation of practices that encourage teachers to remain in the profession. Such practices include teacher support systems, stipends associated with participation in professional support, and advanced teaching certificates (State Board of Educator Certification, 2001). Most alternative certification programs have some sort of induction program and mentoring component (Roach & Cohen, 2002). Jorissen (2003) stated that while the literature shows mentoring relationships improve teacher retention, it is particularly important in alternative certification program routes to certification.

The State Board for Educator Certification conducted a number of attrition studies in 2002. One-year attrition rates for the 2001-2002 academic year were reported at 10.3% (State Board for Educator Certification, 2002a). The study outlined in Table 2.1 clearly indicates an increase in attrition rates over time.

Table 2.1. One-Year Attrition Rates for Texas Public School Teachers (1995-1996 through 2001-2002)

Academic Year	1995-1996 %	1996-1997 %	1997-1998 %	1998-1999 %	1999-2000 %	2000-2001 %	2001-2002 %	Change 1996-2002
All Teachers	8.3	8.6	8.9	9.9	9.8	10.5	10.3	2.0

In a series of studies conducted by Ed Fuller, the former Co-Director of the State Board for Educator Certification in Texas, the attrition rates of alternatively certified



teachers were examined in relation to traditionally certified teachers (Fuller, 2002).

Fuller's findings are outlined in Table 2.2.

Table 2.2. Attrition Rates: Alternative Route vs. Traditional Route

Program Type	Attrition Rate % 1998-1999	Attrition Rate % 1998-2002
Alternative Certification Program All Schools	11.3	18.7
Traditional University Program All Schools	7.2	12.2
Alternative Certification Program High Poverty Schools	11.0	17.6
Traditional University Program High Poverty Schools	6.3	9.3
Alternative Certification Program High Minority	11.0	18.4
Traditional University Program High Minority	6.6	9.9

The teachers represented in the data are those who obtained initial certification in 1999 from a Texas educator preparation program, were employed in Texas public schools in the 1999-2000 academic year, and employed in only one Texas public school in the 1999-2000 academic year. The data clearly indicate that the attrition rate for teachers who completed an alternative certification program is higher than the attrition rate for teachers who completed a traditional university program.

### **Teacher Retention**

Hunt and Carroll (2003) stated, “teacher shortages will never end and that quality teaching will not be achieved for every child until we change the conditions that are driving teachers out of too many of our schools” (p. 3). Based on national teacher attrition rates, Colley (2002) stated that between 20 and 50% of all teachers leave the profession within their first five years in the profession. According to Ingersoll and Smith (2003), the turnover rate in the teaching profession is attributed to two components: attrition, those who leave all together; and migration, those who move to teaching jobs in other schools. The number of teachers who leave due to migration make up slightly less than half of the turnover rate while attrition accounts for slightly more than half (Hunt & Carroll, 2003; Ingersoll & Smith, 2003).

As indicated, attrition of teachers is most prevalent among beginning teachers. Beginning teachers who leave the profession after one year indicate that they do so because of a number of reasons (Ingersoll & Smith, 2003). In a study by Ingersoll and Smith (2003), approximately 19% of the teachers in the study left as a result of school staffing action such as teacher cutbacks, layoffs, termination, school reorganization, or school closings. In the same study, 42% left the profession due to personal reasons such as pregnancy, childrearing, health problems, and family moves. Nearly 39% left the profession to pursue another job or career. Twenty-nine percent indicated that they left due to dissatisfaction with the teaching career or with their job.

In Texas, nearly 60% of teachers leave the profession within the first five years (Patterson, 2002). According to Patterson, 60% of those who leave do so as a result of

student disciplinary issues and working conditions. Less than 25% cite pay as the primary reason for leaving the profession.

State Board for Educator Certification (as cited on Patterson, 2002) statistics indicated that there are nearly 420,000 individuals in Texas who are certified to teach, but decline to teach in Texas public schools. This indicates that the issue does not exist with the supply of teachers, but their willingness to enter and stay in the teaching profession.

### *Retention Strategies*

While researchers revealed a number of strategies to improve teacher retention rates, the most prevalent included induction and mentor programs, compensation programs, and adjustments to working conditions (Darling-Hammond, 2003; Feiman-Nemser, 2003; Hope, 1999; Jacobson, 1995; Morice & Murray, 2003; Olson, 2000a;).

### **Induction and Mentor**

The most prevalent retention strategies include induction and mentor programs where veteran teachers provide new teachers with structured support (Olson, 2000a). According to Olson, first-year teachers who do not participate in such programs are nearly twice as likely to leave the teaching profession after their first three years. A number of researchers have found that mentoring programs raise retention rates for new teachers by improving their attitudes, feelings of efficacy, and instructional skills (Darling-Hammond, 2003). Darling-Hammond warned that induction programs will only produce such results if they are well designed and well supported. Currently, only 22 of the 33 states that have induction programs provide funding support for these

programs (Darling-Hammond, 2003). The provision for funding may increase the likelihood of effective implementation of such a program.

Effective induction programs provide mentor training for the mentors (Feiman-Nemser, 2003). Mentoring is a skill that must be taught and practiced. According to Feiman-Nemser, mentors need opportunities (a) to clarify their vision of good teaching, to see and analyze effective models of mentoring; (b) to develop skills in observing and talking about teaching in analytic, nonjudgmental ways; and (c) to learn to assess new teachers' progress and their own effectiveness as mentors. Hope (1999) contended that induction programs involve systematic contact with the intention of assisting in the new teacher's professional growth and development and of engaging in collegial conversation about the work of teaching. Hope went on to state that, "while the orientation phase of the process may conclude after the first year, induction should continue in order to develop teachers' repertoires of skills and to inculcate teaching as a career" (p. 54).

### **Compensation**

Darling-Hammond (2003) contended that the field of education must compete with other occupations for the most talented graduates. In order to do so, personnel responsible for hiring must be able to compete in terms of wages and working conditions. Currently, personnel responsible for hiring are not fulfilling this challenge. Teacher salaries are approximately 20% below the salaries of other professionals with comparable education and training (Darling-Hammond, 2003).

Jacobson (1995) stated that monetary incentives affect recruitment, retention, and attendance. Incentive pay programs that provide salary increases for teachers on the basis of performance evaluations have been proven to work in some instances (Morice & Murray, 2003). Morice and Murray contended that while teachers tend to enter the field for the intrinsic satisfaction of working with students, they can still be motivated by extrinsic factors such as incentive pay.

### **Working Conditions**

Working conditions have a significant impact on teacher satisfaction (Darling-Hammond, 2003). According to Darling-Hammond (2000), teacher feelings related to administrative support, resources for teaching, and teacher input into decision-making play an important role in their staying in the profession.

Schools serving lower-income or lower-achieving students have higher attrition rates which are influenced by the poorer working conditions typically found in those schools (Darling-Hammond, 2003). Poorer working conditions include larger class sizes, poor facilities, and low administrative support (Darling-Hammond, 2003). When these conditions are paired with low salaries, they have a greater affect on teacher turnover than do the demographic characteristics of the students (Darling-Hammond, 2003).

## **Teacher Certification**

### *History*

Teacher qualifications can be traced back as far as 1837 when Horace Mann addressed teacher competency in The First Annual Report (Compayre, 1907; Cremin, 1957). In 1836, Mann was elected state senator of Massachusetts and was appointed

president of the senate his first day of service (Compayre, 1907). While serving as president of the Massachusetts Senate, Mann recognized the need for a focus on educational issues. In April of 1837, Mann signed an official act that resulted in the formation of a board of education (Compayre, 1907). The board would serve to “study and investigate the moral and material condition of the schools, in order, subsequently to discover and apply the best methods of improving them, the board being thus both an examining and a reforming body” (Compayre, 1907, p. 23). Mann was elected as secretary of the Massachusetts State Board of Education.

Mann served as the secretary for 12 years (Cremin, 1957). During this time, Mann published 12 annual reports to the Board. According to Cremin (1957), Mann recognized the potential destructive possibilities of religious, political, and class discord and sought to establish a common set of values through the common school. Mann’s 12 reports were guided by the quest for “a public philosophy, a sense of community which might be shared by Americans of every variety and persuasion” (Cremin, 1957, p. 8). It was through the common school that Mann hoped to provide a universal education for all students. Mann referred to his theory of universal education as the “great equalizer” of human condition (Cremin, 1957).

The First Annual Report was published in 1837 and addressed four essential needs of the public schools. The four needs included (a) the need for school buildings that were physically conducive to learning, (b) effective local school boards, (c) public commitment to universal education, and (d) competent teachers (Compayre, 1907; Cremin, 1957). The issue of teacher quality would surface again, three years later, in

Mann's work. The Fourth Annual Report (1840) involved the need to consolidate small school districts, private schools, attendance, disciplinary issues, graded classes, and teacher qualifications (Compayre, 1907; Cremin, 1957). Mann firmly believed that teachers should be viewed as professionals who: (a) have a knowledge of the content, (b) have the ability to impart knowledge onto others, (c) have the ability to manage and govern a group of students, and (d) have the responsibility of teaching good behavior and moral character (Compayre, 1907).

The first teacher education preparation program can be traced back to the establishment of the first state normal school, which opened in Lexington, Massachusetts in July 1839 (Spring, 2001). The early normal schools prepared teachers to teach in today's equivalent of the elementary school. Normal schools did not require high school diplomas for admittance. Teachers who taught in secondary institutions, high schools, and academies were generally college and university graduates (Spring, 2001).

By the 1930's, most normal schools required a high school diploma for admittance (Spring, 2001). Teacher preparation programs continued to progress throughout the early 1900's. According to Spring, four-year teacher colleges began to grow in popularity throughout the early 1900's. By 1933, there were a mere 30 normal schools and 146 teacher colleges (Spring, 2001). Additionally, many colleges and universities began to add departments and colleges of education.

During the 20<sup>th</sup> century, teacher certification requirements evolved from the use of oral exams to written exams to written examinations paired with mandatory

completion of a prescribed set of courses (DeYoung & Wynn, 1972). It was also during this time that the certification of teachers was assumed by individual states.

### **Traditional Certification**

Today, in the United States, certification and licensing of teachers continues to be the responsibility of the individual state (National Center for Education Information, 2003). Typically, the college or university submits a plan for a teacher preparation program for each discipline and/or grade level(s) for which the institution wishes to offer a certification. The state must approve each certification program. Candidates wishing to seek certification apply directly to the college or university, take the required coursework, and meet other required criteria such as student teaching and coursework. Upon completion of the program, the candidate is granted certification or a teaching license (National Center for Education Information, 2003).

State programs vary tremendously. Some require passing tests and field-based observations prior to student teaching. The amount of time required for student teaching varies from program-to-program. Some states require one initial certification while others require second and third stage certificates. Some certificates require continuing education, while others are life or permanent certificates (National Center for Education Information, 2003).

The state of Texas requires teacher candidates to complete teacher training through an approved program discipline (State Board for Educator Certification, 2004a). Texas institutions do not offer a degree in education. Every teacher must have an academic major and complete a teacher-training course. The teacher-training component



must be done through an approved program. These programs are housed at colleges and universities, school districts, regional service centers, community colleges, and other locations throughout the state.

In addition to obtaining an academic major and completing a teacher-training course, candidates must also complete the appropriate teacher certification test for the subject and grade level they are seeking certification. The Texas State Board for Educator Certification (SBEC) is divided into four distinct areas: (a) educator preparation, (b) assessment and accountability, (c) certification, and (d) professional discipline (State Board for Educator Certification, 2004a). Each component is outlined below:

### **Educator Preparation**

In the area of educator preparation, the certification board works primarily with entities preparing educators for certification in Texas. The work includes guidance in program development, approval, and implementation. The board currently serves 70 universities, 16 community colleges, 30 alternative teacher certification programs of which 7 are private companies and 11 alternative administrator certification programs. The board also advises entities interested in initiating educator preparation programs.

The certification board is involved in reviewing program approval procedures to streamline the process while maintaining the integrity of program review.

### **Assessment**

State law requires that individuals pass examinations in the areas in which they seek certification. The certification board manages the development and administration of the Examination for the Certification of Educators in Texas (ExCET), Texas Examinations for Master Teachers (TExMaT), Texas Examinations of Educator Standards (TExES), Texas Oral Proficiency Test (TOPT), and Texas Assessment of Sign Communication (TASC) and (TASC-ASL) testing programs. Individuals typically take the TExES Pedagogy and Professional Responsibilities test and additional tests in the academic disciplines in which they seek certification after completing a program of preparation for the

specific certificate(s). These tests assess the prospective educator's knowledge of academic content and teaching, including understanding of learners.

Test development and review of current tests is ongoing. Passing standards are reviewed periodically and recommendations from these reviews are presented to the Board. The Board sets the minimum score required to pass each certification test. Assessment professionals work with school district and educator preparation program staff to identify committee members for these activities.

### **Accountability**

The certification board monitors the quality of educator preparation at university and alternative certification programs through the Accountability System for Educator Preparation (ASEP). The certification board uses assessment data (TExES, ExCET, TExMaT, TOPT, TASC, and TASC-ASL) and, in the future, the performance of beginning teachers to determine program quality and issue annual accreditation reports according to minimum acceptable performance levels established by the Board.

### **Certification**

The certification board is responsible for ensuring that educators are qualified to serve in the Texas public school system through the following:

- Issuing educator credentials to applicants who have completed the appropriate degree and have a standard credential from another state or another country.
- Issuing educator credentials to applicants who have completed requirements for certification at a Texas educator preparation program.
- Certifying applicants adding certification based on completion of the appropriate examination(s).
- Certifying applicants adding certification based on completion of the appropriate examination(s).
- Issuing educator credentials to educational aides.
- Issuing emergency and nonrenewable permits to school districts and reviewing and approving hardship permits.
- Analyzing and disseminating data on certificate and permit activity
- Coordinating applicant criminal investigations.
- Advising school district staff on assignment criteria for hiring appropriately certified individual.

## **Professional Discipline**

The certification board ensures that Texas educators meet the highest standards of professionalism and ethical behavior. Through its enforcement of disciplinary rules and the Educators' Code of Ethics, the board investigates allegations of educator misconduct to guarantee the safety and well being of Texas school children and fellow educators. When determining if sanctions against a certificate are warranted, the board conducts a thorough investigation and provides the educator the opportunity to be heard. Cases that are not resolved informally through agreed orders may result in informal hearings before the State of Office of Administrative Hearings (SOAH). Such hearings are open to the public. Copies of any final decision by an Administrative Law Judge or an Agreed order between the parties resolving the case are open records and may be obtained upon request. (§ 8)

According to SBEC (2004b), Texas implemented a new teacher certification examination program in the fall of 2002. The new examination program is called the Texas Examinations of Educator Standards (TExES). It replaces the Examination for the Certification of Educators in Texas (ExCET), which had been Texas' teacher certification exam since 1986. The development of the TExES is the result of five years of work in collaboration with the Texas Education Agency and the Texas Higher Education Coordinating Board. The goal of the re-design was a kindergarten through college, or a K-16 curriculum alignment. According to the State Board for Educator Certification (2004b):

The redesign of the educator certification structure is an integral part of the K-16 Initiative. The first step in this process was the development of new standards for beginning Texas public school teachers. These standards are based on the state's required curriculum for public school students, the Texas Essential Knowledge and Skills (TEKS). Developing the new standards and introducing new teacher certificates has been a cooperative process involving numerous committees, each comprised of as many as 25 experts from all educational arenas, from classroom teachers to deans of education, as well as interested citizens.

The work of these committees is guiding the development of the new TExES testing program, which is based on the new standards. Twenty-five new standards-based certificates were introduced in the fall of 2002. Five new certificates were introduced in the fall of 2003. SBEC has a goal of replacing all existing ExCET tests and certificates by 2005.

The certificate structure itself also is being streamlined. There will be a reduction in the types of certificates offered, but each new certificate will require a greater breadth and depth of knowledge on the part of the beginning teacher. For example, there no longer will be individual certificates offered for physics and chemistry. Instead there will be a single certificate for physical science, which requires the beginning teacher to have adequate content knowledge to teach either, or both.

SBEC and the committees creating the new standards recognize that children learn differently at different grade levels. The new certificate structure takes these developmental differences into account. The new certificates will also bring greater focus to preparing middle school teachers. New certificates have been issued for early childhood through grade four, grades four through eight, and grades eight through twelve. These are replacing current certificates that cover early childhood through grades six or eight, and grades six through twelve. There are also new certificates that are considered all level (i.e., early childhood through grade twelve). (§ 5)

For teachers from states outside of Texas wishing to gain certification in the state of Texas, there are several options (SBEC, 2004a). An applicant who holds a certificate in another state or United States territory may apply for a Texas certificate. In 2001, the 77<sup>th</sup> Texas Legislature passed House Bill 1721, which allows SBEC to issue a Texas teaching certificate to any candidate who holds a valid certificate from another state or country and who has passed a certification exam equivalent to the appropriate Texas exam. The credential must be equivalent to a certificate issued by SBEC and must not have been revoked, suspended, or pending such action.

## **Alternative Certification**

Emily Feistritzer defined alternative certification programs as:

Every avenue of becoming licensed to teach, from emergency certification to very sophisticated and well-designed programs that address the professional preparation needs of the growing population of individuals who already have at least a baccalaureate degree and considerable life experience and want to become teachers. (Feistritzer & Chester, 2000, p. 3)

Sara Wright (2001) defined alternative certification programs as: “accreditation programs designed to allow individuals with a significant subject-area background to complete their teacher preparation education while teaching full time in a participating school district” (p. 24). Perhaps the broadest and most encompassing definition is the one proposed by Virginia Roach and Benjamin Cohen:

Pathways to a teaching certificate that fall outside of a full-time, four- or five-year teacher preparation program. They can include programs for mid-career switchers, programs to prepare paraprofessionals to become teachers, and programs for new college graduates who decide after graduation to enter teaching. (Roach & Cohen, 2002, p. 2)

Alternative certification programs offer a number of benefits to individuals wishing to obtain teacher certification. Some of the benefits include less demanding time commitments for training, reduced financial costs, academic and social support services, and assistance with existing certification requirements (Ng, 2003). Alternative certification programs vary greatly in design and scope and can be found in 44 states and the District of Columbia (Blair, 2003). The design of an alternative certification program can range from a two-week training requirement to a two-year post-baccalaureate program with integrated coursework and up to three years of mentoring support (Jorissen, 2003).

Alternative certification programs began to gain popularity in the mid-1980s and grew quickly throughout the 1990's. Between 1985 and 1990, there were approximately 20,000 people certified through alternative routes. By the year 1992, that number increased to nearly 40,000 people in 40 states (Feistritzer, 1993).

New Jersey was one of the first states to call a lot of attention to alternative certification programs when it enacted legislation for such in 1984. The state of Texas soon followed with its first alternative certification program in the Houston Independent School District in 1985. Both were developed to assist in meeting the demands of teacher shortages (National Center for Education Information, 2003).

While the number and type of alternative certification programs vary greatly, there are a number of authors who have identified key components of effective programs. Berry (2001) suggested that high quality alternative certification programs contain several key elements. First, they must provide a strong academic and pedagogical component. Secondly, they must include an intensive field experience in an internship or student teaching. Next, a high quality alternative certification program requires all teachers to meet all of the state's standards for subject matter and teaching knowledge. Lastly, all teachers must meet the state's teacher quality standards.

#### *Alternative Certification Programs in Texas*

The Texas Alternative Teacher Certification Program was established in 1984 by the 68<sup>th</sup> Legislature in House Bill 72. The Texas Education Code 21.049 provides a provision that requires the State Board for Educator Certification to establish rules for the establishment of alternative certification programs (Texas Education Code, 2004).

Under this rule, persons who hold degrees from regionally accredited institutions of higher education and who meet prerequisites for admission to an approved alternative certification program may be recommended to the Commissioner of Education for teacher certification upon satisfactory completion of specified requirements of the approved program (Texas Region 20 Education Service Center, 2003). Alternative teacher certification programs were first implemented in Texas during the 1985-1986 school year. There are 52 State Board of Education approved alternative certification programs in the state of Texas (National Center for Education Information, 2003). These programs are based in regional education service centers, universities, school districts, and private entities.

*Teacher Orientation and Preparation Program (TOPP)*

Regional Education Service Centers were established in the state of Texas in response to Title III of the Elementary and Secondary Education Act passed by Congress in 1965. The 20 media centers were established by the Texas Legislature to provide services for Title III. Since the establishment of the 20 Regional Education Services Centers, their role in education has evolved. The Regional Education Service Centers have played an integral role in the provision of services to school districts and charter schools in the implementation of school reform and school improvement. The Education Service Centers have carried out mandates set forth by the Texas Legislature and the Commissioners of Education to assist school districts and charters in achieving the goal of improved student performance. Education Service Centers are organizations that serve one of 20 geographically delineated areas of Texas whose primary responsibilities

include: (a) assist school districts in improving student performance in each region in the system, (b) enable school districts to operate more efficiently and economically, and (c) implement initiatives assigned by the legislature or the commissioner (Texas Education Code, 1997).

Education Service Center, Region 20, located in San Antonio, is the site of one of the state approved alternative certification programs in the state of Texas. The Teacher Orientation and Preparation Program (TOPP) allows persons who hold degrees from accredited institutions of higher education an opportunity to complete the state required certification within a 13- to 15-month period (Texas Region 20 Education Service Center, 2003).

The program requirements include participation in seminars, training, college coursework, a mentorship component, and an internship. Each component has been carefully planned so as to provide a comprehensive overview of the teaching process and up-to-date information on effective teaching practices, classroom management and organization, and behavior management (Texas Region 20 Education Service Center, 2003). Participation in each component is critical to the success of the candidates and is required for completion of the program, and ultimately certification. Each component is described in detail in the next section.

**Seminars.** Seminars are scheduled for full days on Saturdays throughout the school year. Topics range from child growth and development to content specific instructional strategies. The seminars are conducted by TOPP staff and adjunct TOPP staff members.



**Training.** The training component includes a summer institute as well as specialized training during the school year. Topics include working with diverse student populations, technology integration, behavior and classroom management, and a variety of other topics specific to each certification area. The trainings are conducted by TOPP staff and adjunct TOPP staff members.

**College coursework.** Candidates are required to take 12-15 hours of college coursework. All coursework is completed through a local university. Required classes are varied and depend on the specific certification the candidate is seeking.

**Mentorship component.** The mentorship component consists of a structured mentor program that includes mentor training, formal observations, and constructive feedback. The school principal identifies mentor teachers. Mentors are provided release time during the school day to fulfill their mentor responsibilities. According to Texas Region 20 Education Service Center (2003) TOPP staff, mentor responsibilities include the following:

- Accept the teacher intern as a professional.
- Acquaint the teacher intern with materials and resources available in the school.
- Encourage the teacher intern to be creative and try new teaching strategies.
- Review lesson plans from the teacher intern and submit written feedback to the TOPP office.
- Conduct observations of the teacher intern in the classroom a minimum of 45 minutes during six designated months, complete a Mentor Feedback Report, debrief each observation with the teacher intern, and provide a copy of the Mentor Feedback Report to the intern.
- Conduct regular cooperative planning sessions with the teacher intern.
- Attend Region 20 seminars conducted for mentors.
- Provide TOPP coordinator with written feedback of intern progress once a semester and provide copies of the feedback to the principal and the intern.

- Perform other duties as assigned by the principal. (p. 15)

**Internship.** The internship requires each TOPP candidate to secure a teaching position in a public or charter school and maintain the position for the duration of the school year. The position obtained must match the certification area sought by the candidate. Once employed, the candidate must comply with all policies and procedures established by the school district or charter. If a candidate leaves a position, voluntarily or otherwise, the candidate is no longer permitted to attend the Region 20 TOPP training. The candidate is, however, expected to complete the college coursework. All candidates are considered the teacher of record and must comply with Chapter 247 Educators' Code of Ethics: Rule §247.2 Code of Ethics and Standard Practices for Texas Educators.

Each candidate must meet the state's definition of "highly qualified" in order to be in compliance with the requirements set forth by the 2001 No Child Left Behind legislation. In order to do so, each candidate must pass the Texas Examinations of Educator Standards (TExES) prior to the start of the school year.

According to Region 20 personnel, TOPP leads to certification in the following certification areas (Texas Region 20 Education Service Center, 2002):

- Early Childhood through Grade 4 Generalist
- Early Childhood through Grade 4 Bilingual Generalist
- Grades 4-8 Generalist
- Grades 4-8 Bilingual Generalist
- Grades 4-8 Single Subject

- Grades 4-8 Dual Subject
- Secondary Grades 8-12 Single Subject
- Secondary Grades 8-12 Dual Subject
- Secondary Composite Science Grades 4-8 and 8-12
- Secondary Composite Social Studies Grades 4-8 and 8-12
- Secondary Composite English Language Arts Grades 4-8 and 8-12
- Generic Special Education Pre-Kindergarten-12
- English as a Second Language Pre-Kindergarten-12

Region 20 TOPP personnel also consider other certification areas based upon applicant qualifications and personnel vacancies in the region.

According to the State Board for Educator Certification (2002b), Education Service Center, Region 20, has the following approved programs and certification areas:

- Bilingual/ESL-Spanish, Computer Science
- Elementary Self-Contained
- English Language Arts and Reading
- English Language Arts and Reading/Social Studies
- English as a Second Language
- Generalist
- Generic Special Education
- History
- Life Sciences
- Master Reading Teacher
- Mathematics
- Physical Sciences
- Principal
- Science
- Secondary Art
- Secondary Basic Business
- Secondary Biology
- Secondary Business Administration

- Secondary Business Composite
- Secondary Chemistry
- Secondary Computer Information Systems
- Secondary Dance
- Secondary Earth Science
- Secondary Economics
- Secondary English
- Secondary English Language Arts
- Secondary French
- Secondary Geography
- Secondary German
- Secondary Government
- Secondary Health Education
- Secondary History
- Secondary Industrial Technology
- Secondary Journalism
- Secondary Latin
- Secondary Life-Earth Science
- Secondary Mathematics
- Secondary Music
- Secondary Physical Education
- Secondary Physical Science
- Secondary Physics
- Secondary Psychology,
- Secondary Reading
- Secondary Science Composite
- Secondary Secretarial Business
- Secondary Social Studies Composite
- Secondary Sociology
- Secondary Spanish
- Secondary Speech Communications
- Secondary Theatre Arts
- Social Studies
- Technology Applications
- Vocational Agriculture Ornamental Horticulture
- Vocational Agriculture Production
- Vocational Home Economics Education.

Accordingly, Education Service Center, Region 20, Teacher Orientation and

Preparation Program can offer certification in these areas.

Candidates interested in completing certification through Teacher Orientation and Preparation Program must meet specific eligibility requirements. Eligibility requirements for all areas of the program include:

- Bachelor's degree from a regionally accredited college or university with a 2.5 overall GPA on a 4.0 scale.
- Foreign transcript evaluation if required (Foreign transcripts must be evaluated by an approved credential evaluation service. Evaluation must include semester hours and grades and confirmation of the degree being equivalent to a degree conferred by a regionally-accredited college or university in the United States.).
- Satisfactory scores on the TASP/THEA (Texas Higher Education Assessment) basic skills test. Minimum passing scores for the 2004-2005 cycle are: Reading = 250, Math = 230, and Writing = 220.
- Evidence of English language proficiency. This can be met with the completion of an undergraduate or graduate degree at an institution in the United States or verification of satisfactory scores on the Test of Spoken English.
- Satisfactory results on a proficiency test in the target language for those candidates seeking certification in EC-Grade 4 Bilingual Generalist, Grades 4-8 Bilingual Generalist, Grades 4-8 and Secondary Grades 8-12 in Spanish, German, or French prior to application deadline.
- Required block of semester hours for the desired certification.

- Required classroom observation hours (two full days of shadowing a teacher in the certificate area being sought and 1/2 day of observation in special education classroom).
- Completed application, official transcripts from each college and university attended, foreign transcript evaluation (if required), addendum for the release of criminal history, satisfactory scores on TASP/THEA (Reading = 250, Math = 230, and Writing = 220), and a \$60 application fee.

All candidates must be recommended for certification by the TOPP staff. In making recommendations to the State Board for Educator Certification (SBEC) for certification of a candidate, the following areas are considered (Texas Region 20 Education Service Center, 2003):

- Satisfactory completion of all training and college course requirements as prescribed by the state-approved program.
- Satisfactory Examination for the Certification of Educators in Texas (ExCET) or Texas Examinations of Educator Standards (TExES) scores as required for certification.
- Recommendation of TOPP staff.
- Submission of all mentor/intern monthly observations, preliminary and final assessments by mentor and principal, lesson plan feedback by mentor, philosophy of education by candidate, and portfolio rubric.
- Evaluation of the portfolio that documents instructional efforts during the internship year to include: ability to plan with grade-level teachers and/or

departmental colleagues, use of educational technology in the classroom, utilization of school and community resources to enhance learning, demonstration of sample lessons using a variety of techniques directed at teaching to each student's learning style, documentation of lesson plan modifications made for special needs students, design of a unit to be used across the curriculum, and application of instructional methodology provided during pre-service and ongoing training.

- Recommendation of district, based on: overall rating of teacher's performance in the classroom, input from the candidate's principal and mentor teacher, satisfactory appraisal scores, any other criteria established by the employing district/charter school, and ability to maintain an internship as a teacher of record for one school year.

According to TOPP staff, completion of the requirements outlined does not guarantee recommendation for certification. If the TOPP staff determines that the candidate has not demonstrated the professional qualities outlined in the criteria above or that the candidate has demonstrated attitudes or behaviors that detract from the learning environment of a classroom or campus, recommendation for certification will be withheld (Texas Region 20 Education Service Center, 2003). An extension of an internship may be granted for a period not to exceed one year. The candidate may use the additional year to complete the requirements necessary to complete the program.

In summary, information provided in this chapter included the literature pertinent to the study of the impact of alternative certification programs on teacher retention. In

the review of the literature, information relevant to the use of alternative certification programs within the context of the federal No Child Left Behind Act as well as state responsibilities and requirements was examined. It is clear that there is, and will continue to be, a need for certified and highly qualified teachers. This need is due to a variety of factors, but most notably retiring teachers, projected enrollment increases, teacher attrition, and new classroom policies (Howard, 2003; Ingersoll, 2003b; Lucksinger, 2000). As a result, it is crucial to appropriately evaluate the impact of current alternative certification programs in combating this public education crisis. This study was undertaken to complement the existing body of knowledge related to this crisis so as to offer potential solutions to this problem.



### **CHAPTER III**

### **METHODOLOGY**

The major purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas, as reported by Education Service Center, Region 20, Texas. The alternative certification program from which data were reviewed was the Teacher Orientation and Preparation Program (TOPP). Demographic variables from TOPP completers were analyzed to determine their association with retention rates. Additionally, survey interviews were conducted to provide additional information related to retention rates of TOPP completers.

A proposal for the research study was submitted to and approved by the students' graduate committee and the Institutional Review Board (IRB) at Texas A&M University. Permission to conduct this study was granted by the Executive Director of Education Service Center, Region 20, in March of 2004.

The study focused on two specific research questions:

1. Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?
2. What variables influence the retention of teachers who are certified through the TOPP as reported by teachers who have completed the TOPP in Region 20, Texas?

This researcher used a combination of data sources to obtain information related to the retention rates of TOPP educators. The data sources included Education Service

Center, Region 20 databanks, Public Education Information Management System (PEIMS) data, and Texas Education Agency Academic Excellence Indicator System (AEIS) databanks. Additionally, the researcher conducted survey interviews with ten TOPP educators to obtain supplementary qualitative information related to retention rates.

In this chapter, the researcher elaborated on procedures that were followed in order to accomplish the purpose of the study. Sections contained in this chapter include: population, instrumentation, procedures, data analysis, and survey interview.

### **Population**

The population for this study included 537 teachers who completed the Teacher Orientation and Preparation Program in Education Service Center, Region 20, from 1999-2004. The population consisted of five TOPP cohorts. The cohorts included TOPP classes from 1999-2000, 2000-2001, 2001-2002, 2002-2003, and 2003-2004. Each TOPP class represented the year that they were involved in the TOPP program, including the internship. The internship year was considered year one of teaching experience.

The researcher chose ten participants who mirrored the demographic variables identified in the population to serve as the sub-sample. The sub-sample of ten was identified through purposeful selection. The sub-sample included representation for each of the selected demographic variables: ethnicity, gender, current campus placement, and current socioeconomic level of campus. The researcher conducted a survey interview with each member of the sub-sample. The researcher was able to schedule and interview

ten respondents from six different school districts. At the beginning of each interview, the researcher reviewed the purpose of the study while explaining the Informed Consent Document (Appendix A) and obtaining the signature of the respondent. The signature indicated both an understanding of the researcher's intent as well as consent to proceed with the interview. Both the researcher and the respondent retained a copy of the Informed Consent Document.

### **Instrumentation**

The names and social security numbers of all TOPP completers identified as having completed the program within the dates identified were provided to the researcher by Education Service Center, Region 20. This data were provided in a variety of electronic formats. The researcher transferred all files and data to Microsoft Office Excel files.

The data in the Microsoft Office Excel files were then cross-referenced with the PEIMS 090 Data File. The PEIMS 090 Data File was generated from data submitted to the Education Service Center, Region 20, by all school districts and charter schools within the region on an annual basis. The cross-reference was completed using a SPSS statistical analysis software package. The data were matched on social security numbers. The following data were obtained from the 090 Data File: first name, last name, year, district number, campus number, and role ID. In order to determine retention, the 1999-2000 TOPP cohort data were matched with the 2001-2002 090 Data File. This served to identify all cohort year 1999-2000 TOPP completers who were retained three years in

Region 20 in the role of a teacher as well as completers who were not retained three years in Region 20 in the role of a teacher.

The same process was repeated using the 2000-2001 TOPP cohort data and the 2002-2003 090 Data File and again with the 2001-2002 TOPP cohort data and the 2003-2004 090 Data File. The same match was then used to obtain first name, last name, year, district number, campus number, and role ID for the intern years of 1999-2000, 2000-2001, and 2001-2002.

This researcher then used the PEIMS 040 Staff Data File to obtain demographic information related to gender and ethnicity. The social security numbers were matched using the existing data and the 040 Staff Data File. This information was captured in the SPSS statistical analysis software package.

In order to obtain information related to the socioeconomic level of the campus, the grade span, and the grade type, the researcher accessed the Texas Education Agency website and searched the Academic Excellence Indicator System (AEIS) reports. The campus number obtained from the 090 Data File was used to retrieve this data.

Campuses identified as “low socioeconomic” are those with a rate of 50% or more of their students being identified as such. “Grade span” refers to the grades served by the campus. “Grade type” refers to type of grades the campus serves. Grade type includes elementary, middle school, high school, and both (those that serve a combination of elementary, middle and secondary grades).

For each of the 537 TOPP completers in the population, a campus number, district number, and role ID were determined and reported for their first year of

employment, or intern year, as well as their third year of employment. For the purpose of this study, the third year data were utilized to describe retention information related to grade type. In other words, the campus on which participants were employed on year three of employment was used to describe the grade type in which the completer was currently assigned. Conversely, first year data were used to describe retention information related to the socioeconomic level of the campus. The researcher wanted to determine if the socioeconomic level of the campus during the first year of experience impacted retention.

The last step in compiling the data for the population involved the removal of social security numbers. Social security numbers were replaced with identification numbers 1 through 537 to protect the identity of the participants.

The end data set included the following information:

- First name
- Last name
- District number (year 1 and year 3) – Unique state assigned district identification number.
- Campus number (year 1 and year 3) – Unique state assigned campus identification number.
- Gender – Male or female.
- Ethnicity – African American (3), Asian/Pacific Islander (2), Hispanic (4), Native American (1), White (5)

- Role ID (year 1 and year 3) – The capacity in which a person serves. All participants with role ID 025, 029, and 054 have teaching responsibilities.
- Campus name (year 1 and year 3)
- Grade span (year 1 and year 3) – Grades served by the campus.
- Grade type (year 1 and year 3) – The type of grades the campus serves. Grade types include elementary, middle school, secondary school, and both (those that serve a combination of elementary, middle and secondary schools).
- Socioeconomic level – Low socioeconomic level is 50% or greater economically disadvantaged students as determined by qualification for free and reduced school lunch program. Yes (1) or no (2).
- Retained – Yes (1) or no (0).
- Identification number – Unique number 1 through 537 assigned to each subject in the population.

A researcher-developed survey interview was used to collect additional data related to the attitudes of TOPP completers in regards to their retention in the field. The survey interview followed the suggested sequence for instrument development by Gall, Borg, and Gall (1996) and Patton (1990). The researcher followed the suggested steps for preparing and conducting research interviews as identified in *Educational Research: An Introduction* (Gall et al., 1996). The development of the interview process was based on these factors:

1. Defining the purpose of the interview;
2. Selecting a sample;

3. Designing the interview format;
4. Developing questions;
5. Conducting the interview;
6. Analyzing the interview data.

The purpose of the interviews was to supplement and inform the data that the researcher had been collected through the quantitative method. The researcher sought to gain more qualitative information from conducting interviews with individuals.

The purposeful sample of respondents is discussed in detail in the Population section of this chapter. All respondents participated voluntarily and were located by cross-referencing the Education Service Center, Region 20, Teacher Orientation and Preparation Program databanks and the Public Education Information and Management System databanks and the Academic Excellence Indicator System databanks. The researcher interviewed one respondent at a time.

A semi-structured interview technique was used. The researcher developed a list of core questions to initiate the conversations with the respondents (Appendix B). An interview guide, such as predetermined questions, helps the researcher with the necessary continuity between interviews.

The interviews were conducted using the researcher as a human instrument. The interview format was conversation with a purpose. As the researcher conducted the research, he used the following qualitative techniques: (a) participant observation, (b) structured interviewing, (c) unstructured interviewing, and (d) non-verbal communication. As suggested by Lincoln and Guba (1985) in *Naturalistic Inquiry*, the

researcher used cues and probes to keep the respondent talking to further develop the essential themes. All interview data were recorded with an audio tape recorder.

Permission to record was obtained through the Informed Consent Document (Appendix A).

The analysis of the interview data are discussed briefly in the Data Analysis section of this chapter and in more depth and detail in Chapter IV.

### **Procedures**

The procedure used consisted first of contacting the Executive Director of Education Service Center, Region 20, to secure his permission to perform the study in the region. A letter was drafted, submitted, and approved by the Internal Review Board at Texas A&M and submitted and signed by the Executive Director (Appendix C). The letter assured subject confidentiality, as well as a detailed explanation of the researcher's intent. Additionally, an open records request was submitted to the Executive Director (Appendix D). Permission to proceed with the study was granted by the Executive Director on March 10, 2004. Following the request, the researcher was provided with the data needed for the study. All data were secured by November 1, 2004.

The data provided by Education Service Center, Region 20 included the names and social security numbers of all TOPP candidates identified as having completed the program from 1999 through 2004. Education Service Center, Region 20 staff also provided the PEIMS 040 and 090 records for all districts and charter schools in Region 20 for the following school years: 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004.



Next, the researcher, through a telephone call, contacted the participants in the sub-sample. Individual survey interviews with each of the TOPP completers identified in the sub-sample were arranged and conducted. Interview participants received a letter assuring subject confidentiality, as well as a detailed explanation of the intent of the research. Consent to participate in the study was assumed by the willingness to participate in the survey interview as well as the participant's signature on the Informed Consent Document (Appendix A).

### **Data Analysis**

Results from this study were analyzed using numerical and graphical techniques. Data analysis and interpretation followed the principles identified by George and Mallery (2002). The data were analyzed using a personal computer and the software package SPSS Version 11.0, specifically the sub-routine logistic regression. A number of analyses were conducted. The analyses included Logistic Regression: Case Processing Summary, Dependent Variable Encoding, Categorical Variables Codings; Block 0 Beginning Block: Classification Table (a,b), Variables in the Equation, Variables not in the Equation; and Block 1 Method=Enter: Omnibus Tests of Model Coefficients, Model Summary, Classification Table (a), and Variables in the Equation.

The survey interview data were analyzed through the use of appropriate techniques as identified by Gall et al. (1996), Mertler and Vannatta (2002), and Patton (1990). The audio recordings and researcher notes were examined and reviewed by the process of unitizing. After being reviewed, major topics were identified and delimited into single pieces of stand-alone data. These data were captured in researcher notes. All

notes and audiotapes were labeled so they could be tracked back to the original interview and correct respondent (Appendix E).

The researcher then sorted the notes by emerging themes. The themes were then used to draw inferences related to research question number two. Details of the data analysis for the two research questions in this research study are presented in the following chapter.

## **CHAPTER IV**

### **RESULTS OF THE STUDY**

The purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas, as reported by Education Service Center, Region 20, Texas. It sought to identify demographic variables associated with retention rates. Specifically, the demographic variables the researcher examined included ethnicity, gender, current grade type (elementary – PK-5, middle school – 6-8, and high school – 9-12), and current socioeconomic level (as determined by percent of children who qualify for free and reduced lunch programs) of campus. Additionally, the researcher sought to provide qualitative data and information that could assist in explaining the retention rates of TOPP participants. Those data were retrieved through one-on-one survey interviews.

The findings of the study are reported in this chapter. In Chapter IV, the researcher provides analysis of the data resulting from the statistical procedure logistic regression as well as an analysis of the data obtained through survey interviews. The researcher begins the chapter with a review of the demographic data of the population through an analysis of the data and crosstabulation of the data. Next, research question number one is addressed with the corresponding data. The procedures for analyzing the data and a summary of the findings are included. In the next section of Chapter IV, the researcher reviews the demographic data of the sub-sample used in the survey interview portion of the study. Finally, research question number two is addressed through an analysis of the individual survey interview responses.

The results presented in this chapter address two research questions:

1. Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?
2. What variables influence the retention of teachers who are certified through the TOPP as reported by teachers who have completed the TOPP in Region 20, Texas?

### **Demographic Data**

A total of 537 Teacher Orientation and Preparation Program participants who completed the program between the years of 1999 and 2004 were identified as the population for this study. This included five TOPP cohorts: 1999-2000, 2000-2001, 2001-2002, 2002-2003, and 2003-2004. The 537 participants represent the total number of TOPP candidates who met all requirements, completed the TOPP certification program, and obtained Texas certification enabling them the ability to teach in Texas public schools.

The independent variables were analyzed using data related to the socioeconomic status of the campus on which the teacher was teaching in year one and the grade type the teacher was teaching in year one. The gender and ethnicity were the same for years one and three. For the purpose of this portion of the analysis, the researcher conducted a thorough analysis of all data sets in year one and year three.

Of the 537 participants in the population, 526 were included in the analysis. This was due to the fact that in year one, 11 of the 537 participants could not be classified as

teaching in one of the grade types identified by the researcher – elementary, middle, and secondary. The 11 participants who could not be classified appeared as grade type “both” or those campuses that are made up of a combination of elementary, middle, and secondary. As a result, the 11 participants were not included in the analysis.

In year three, there were four additional participants who appeared as grade type “both.” These four teachers moved to a campus type “both” some time in their three years of tenure. The researcher included the four in several of the data analyses. However, for the purpose of this study, they were not considered “retained” due to the fact that they did not fall within the operational definition used to define “grade type.”

Table 4.1 represents the frequencies and the percentages related to grade type of the 537 participants in year one.

Table 4.1. Frequencies and Percentages of Grade Types of Population (Year 1)

Grade Type	Number	Percent
Elementary	258	48.0
Middle	137	25.5
Secondary	131	24.4
Both	11	2.1
Total	537	100.0

The majority of the population, 258, fell in the elementary grade type, which accounted for 48% of the population. There were 137, or 25.5% in the middle school grade type, followed by 131, or 24.4% in the secondary school grade type. There were 11, or 2.1% in the both grade type.

Table 4.2 depicts the frequencies and the percentages related to grade type of the 420 of the 537 participants who were retained and still teaching in year three.

Table 4.2. Frequencies and Percentages of Grade Types of Population (Year 3)

Grade Type	Number	Percent
Elementary	209	49.8
Middle	108	25.7
Secondary	99	23.5
Both	4	1.0
Total	420	100.0

In year three, the majority of the population, 209, fell in the elementary grade type, which accounted for 49.8% of the population. There were 108, or 25.7% in the middle school grade type, followed by 99, or 23.5% in the secondary school grade type. There were 4, or 1% in the both grade type.

The researcher also coded the data by the socioeconomic level of the campus. If the campus contained 50% or more students who qualified for the free and reduced

lunch program, the campus was considered a high poverty, low socioeconomic campus. If the campus contained less than the 50% student population that qualified for the free and reduced lunch program, the campus was not considered a low poverty campus.

Table 4.3 illustrates the frequency and percentage of the 526 participants who taught on campuses that fell into the high and low socioeconomic categories in year one.

Table 4.3. Frequencies and Percentages of Socioeconomic Level of Campus (Year 1)

Socioeconomic Level	Number	Percent
High Socioeconomic Low Poverty	134	25.5
Low Socioeconomic High Poverty	392	74.5
Total	526	100.0

The results reflect nearly 50% higher participation rate in low socioeconomic, high poverty campuses as opposed to high socioeconomic, low poverty. The data show that 392, or 74.5%, of the participants secured teaching positions in low socioeconomic, high poverty schools. Conversely, 134, or 25.5% of the participants secured teaching positions in high socioeconomic, low poverty schools.

Table 4.4 reflects the frequency and percentage of the 526 participants who taught on campuses that fall into the high and low socioeconomic categories in year three.

Table 4.4. Frequencies and Percentages of Socioeconomic Level of Campus (Year 3)

Socioeconomic Level	Number	Percent
High Socioeconomic Low Poverty	99	23.6
Low Socioeconomic High Poverty	321	76.4
Total	420	100.0

Table 4.5 portrays the frequency and percentage regarding the gender of the 526 participants included in the analysis. A great majority, 71.9%, or 378 of the participants in the study, were females. The total number of males was 148, or 28.1% of the population.

Table 4.5. Frequencies and Percentages of Demographic Information Regarding Gender

Gender	Number	Percent
Female	378	71.9
Male	148	28.1
Total	526	100.0

The data were analyzed in regard to the ethnicity of the respondents. Table 4.6 refers to the frequencies and percentages of ethnicity data. The categories include Native American, Asian/Pacific Islander, African American, Hispanic, and White.



Table 4.6. Frequencies and Percentages of Demographic Information Regarding Ethnicity

Ethnicity	Number	Percent
Native American	1	.1
Asian/Pacific Islander	6	1.1
African American	43	8.3
Hispanic	197	37.5
White	279	53.0
Total	526	100.0

The participants who were classified as Native American ethnicity category were 1, or .1%. Asian/Pacific Islander ethnicity accounted for 1.1% or 6 of the participants while African American ethnicity accounted for 8.3% or 43 of the total 526. White and Hispanic ethnicities accounted for over 90% of the population. Hispanic ethnicity totaled 197 or 37.5%, while White ethnicity accounted for 279, or 53% of the total.

The dependent variable for this study reflects data associated with whether or not the participant was retained in the role of teacher in year three. Table 4.7 reflects the frequencies and percentages of retention data. Of the total 526 participants in the population, 416, or 79.1%, were retained in the field of education in the role of a teacher for three years. Conversely, 110, or 20.9%, were not retained in the field of education in the role of a teacher for three years.

Table 4.7. Frequencies and Percentages of Retention Data

Retained	Number	Percent
Yes	416	79.1
No	110	20.9
Total	526	100.0

### Demographic Data: Crosstabulations

The crosstabulations provide a number of unique perspectives in analyzing the data. The crosstabulations were completed through the use of the software package SPSS Version 11.0, specifically the sub-routine crosstabulation. The study consisted of three groups of participants from intern years 2000, 2001, and 2002. The first set of crosstabulation tables provides an analysis of a number of variables in relation to the participants' intern years. There were 124 participants from intern year 2000, 202 participants from intern year 2001, and 200 participants from intern year 2002.

The first crosstabulation provides information related to the gender of the population and the intern year. These data are detailed in Table 4.8. The data clearly indicate that more females participated in the TOPP during the years identified for this study than did males. In intern year 2000, 62.9% or 78 of the total 124 teachers, were females while 37.1% or 46 were males. In intern year 2001, 74.8% or 151 of the total 202 teachers were females while 25.2% or 51 were males. In intern year 2002, 74.5% or 149 of the total 200 teachers were females, while 25.5% or 51 were males. For the total

population, 71.9% or 378 of the participants were females, while 28.1% or 148 were males.

Table 4.8. Frequencies and Percentages of Participants by Intern Year and Gender

Intern Year	Female		Male		Total
	N	%	N	%	
2000	78	62.9	46	37.1	124
2001	151	74.8	51	25.2	202
2002	149	74.5	51	25.5	200
Total	378	71.9	148	28.1	526

The next crosstabulation provides an examination of the ethnicity of the participants in each intern year. These data are depicted in Table 4.9.

Table 4.9. Frequencies and Percentages of Participants by Intern Year and Ethnicity

Intern Year	Native. American		Asian, Pacific Islander		African American		Hispanic		White		Total
2000	0	0.0	4	3.2	16	12.9	41	33.1	63	50.8	124
2001	0	0.0	2	1.0	15	7.4	79	39.1	106	52.5	202
2002	1	.5	0	0.0	12	6.0	77	38.5	110	55.0	200
Total	1	.1	6	1.1	43	8.3	197	37.5	279	53.0	526

For intern year 2000, individuals of Native American ethnicity accounted for 0% of the population, while Asian/Pacific Islander ethnicity accounted for 3.2% or 4 of the total 124 participants. African American ethnicity reflected 12.9% or 16 of the participants, Hispanic ethnicity reflected 33.1% or 41 of the participants, and White ethnicity accounted for 50.8% or 63 of the participants in intern year 2000.

For intern year 2001, individuals of Native American ethnicity accounted for 0% of the population while Asian/Pacific Islander ethnicity accounted for 1% or 2 of the total 202 participants. African American ethnicity reflected 7.4% or 15 of the participants, Hispanic ethnicity reflected 39.1% or 79 of the participants, and White ethnicity accounted for 52.5% or 106 of the participants in intern year 2001.

For intern year 2002, individuals of Native American ethnicity accounted for .5% or 1 of the population while Asian/Pacific Islander ethnicity accounted for 0% of the total 200 participants. African American ethnicity reflected 6% or 12 of the participants, Hispanic ethnicity reflected 38.5% or 77 of the participants, and White ethnicity accounted for 55% or 110 of the participants in intern year 2002.

Table 4.10 provides a crosstabulation related to the socioeconomic status of the campus in year one and the intern year of the participant.

These data indicate that the majority of the TOPP interns were hired on campuses that serve students from low socioeconomic, high poverty areas. In intern year 2000, 65.3% or 81 of the 124 participants secured teaching positions at low socioeconomic, high poverty campuses, while 34.7% or 43 participants' secured positions at high socioeconomic, low poverty campuses. In intern year 2001, 76.2% or 154 of the 202

participants secured teaching positions at low socioeconomic, high poverty campuses, while 23.8% or 48 participants secured positions at high socioeconomic, low poverty campuses. In intern year 2002, 78.5% or 157 of the 200 participants secured teaching positions at low socioeconomic, high poverty campuses, while 21.5% or 43 participants' secured positions at high socioeconomic, low poverty campuses.

Table 4.10. Frequencies and Percentages of Participants by Intern Year and Socioeconomic Status of Campus (Year 1)

Intern Year	Low Poverty		High Poverty		Total
	N	%	N	%	
2000	43	34.7	81	65.3	124
2001	48	23.8	154	76.2	202
2002	43	21.5	157	78.5	200
Total	134	25.5	392	74.5	526

Table 4.11 provides a crosstabulation related to the grade type in which each participant secured a teaching position in year one and the intern year. Grade types included elementary (prekindergarten-grade 5), middle school (grade 6-grade 8), and high school (grade 9-grade 12).

Table 4.11. Frequencies and Percentages of Participants by Intern Year and Grade Types (Year 1)

Intern Year	Elementary		Grade Type Middle School		High School		Total
	N	%	N	%	N	%	
2000	48	38.7	34	27.4	42	33.9	124
2001	102	50.5	49	24.3	51	25.2	202
2002	108	54.0	54	27.0	38	19.0	200
Total	258	49.0	137	26.0	131	25.0	526

In intern year 2000, 38.7% or 48 of the 124 participants held teaching positions at elementary grade type campuses, 27.4% or 34 participants held teaching positions at middle school grade type campuses, and 33.9% or 42 participants held teaching positions at secondary school grade type campuses. In intern year 2001, 50.5% or 102 of the 202 participants held teaching positions at elementary grade type campuses, 24.3% or 49 participants held teaching positions at middle school grade type campuses, and 25.2% or 51 participants held teaching positions at secondary school grade type campuses. In intern year 2002, 54% or 108 of the 200 participants held teaching positions at elementary grade type campuses, 27% or 54 participants held teaching positions at middle school grade type campuses, and 19% or 38 participants held teaching positions at secondary school grade type campuses.

The next set of data represents crosstabulation with gender and a number of other variables. The first table, Table 4.12, depicts the gender and the socioeconomic status of the campus for year one.

Table 4.12. Frequencies and Percentages of Participants by Gender and Socioeconomic Status of Campus (Year 1)

Gender	High Socioeconomic, Low Poverty		Low Socioeconomic, High Poverty		Total
	N	%	N	%	
Female	99	26.2	279	73.8	378
Male	35	23.6	113	76.4	148
Total	134	25.5	392	74.5	526

Female participants who secured positions on low socioeconomic, high poverty campuses accounted for 73.8% or 279 of the total 378 female participants, while females who secured positions on high socioeconomic, low poverty campuses represent 26.2% or 99 of the participants. Male participants who secured positions on low socioeconomic, high poverty campuses accounted for 76.4% or 113 of the total 148 male participants, while males who secured positions on high socioeconomic, low poverty campuses represent 23.6% or 35 of the participants.

Table 4.13 represents the gender and campus type for year one. Grade types included elementary (prekindergarten-grade 5), middle school (grade 6-grade 8), and high school (grade 9-grade 12).

Table 4.13. Frequencies and Percentages of Participants by Gender and Grade Type (Year 1)

Gender	Elementary		Grade Type Middle School		High School		Total
	N	%	N	%	N	%	
Female	217	57.4	83	22.0	78	20.6	378
Male	41	27.7	54	36.5	53	35.8	148
Total	258	49.0	137	26.0	131	25.0	526

Female participants who secured positions on elementary grade type campuses accounted for 57.4% or 217 of the total 378 female participants in year one. Female participants who secured positions on middle school grade type campuses accounted for 22% or 83 of the participants and females who secured position on high school grade type campuses represented 20.6% or 78 of the total 378 female participants in year one. Male participants who secured positions on elementary grade type campuses accounted for 27.7% or 41 of the total 148 male participants in year one. Male participants who secured positions on middle school grade type campuses accounted for 36.5% or 54 of the participants and males who secured position on high school grade type campuses represented 35.8% or 53 of the total 148 male participants in year one.

Table 4.14 represents the gender and campus type for year three. Four participants who fit into the “both” category were included. These four participants were classified as elementary, middle school, or high school in year one and later moved to a



campus that served a mixture of grades, and therefore, no longer fit into one of the established categories of elementary, middle school, or high school.

Table 4.14. Frequencies and Percentages of Participants by Gender and Grade Type (Year 3)

Gender	Grade Type								Total
	Elementary N	%	Middle School N	%	High School N	%	Both N	%	
Female	176	59.4	68	23.0	50	16.9	2	.7	296
Male	33	26.6	40	32.3	49	39.5	2	1.6	124
Total	209	49.7	108	25.7	99	23.6	4	1.0	420

Female participants who secured positions on elementary grade type campuses accounted for 59.4% or 176 of the total 296 female participants in year three. Female participants who secured positions on middle school grade type campuses accounted for 23% or 68 of the participants and females who secured positions on high school grade type campuses represented 16.9% or 50 of the total 296 female participants in year three. There were .7% or 2 female participants who moved to a “both” grade type in year three. Male participants who secured positions on elementary grade type campuses accounted for 26.6% or 33 of the total 124 male participants in year three. Male participants who secured positions on middle school grade type campuses accounted for 32.3% or 40 of the participants, and males who secured position on high school grade type campuses represented 39.5% or 49 of the total 124 male participants in year three. There were 1.6% or 2 male participants who moved to a “both” grade type in year three.

The next set of data provides crosstabulations that examine the population with the common variable of ethnicity. Table 4.15 depicts the ethnicity and the socioeconomic status of the campus in year one.

Table 4.15. Frequencies and Percentages of Participants by Ethnicity and Socioeconomic Level of Campus (Year 1)

Ethnicity	High Socioeconomic, Low Poverty		Low Socioeconomic, High Poverty		Total
	N	%	N	%	
Native American	1	100.0	0	0.0	1
Asian, Pacific Islander	2	33.3	4	66.7	6
African American	10	23.3	33	76.7	43
Hispanic	21	10.7	176	89.3	197
White	100	35.8	179	64.2	279
Total	134	25.5	392	74.5	526

In year one, 100% or 1 of 1 of the Native American ethnicity secured a teaching position on a high socioeconomic, low poverty campus. Asian/Pacific Islander ethnicity had 33.3% or 2 participants on a high socioeconomic, low poverty campus, and 66.7% or 4 of the total 6 Asian/Pacific Islander ethnicity participants on a low socioeconomic, high poverty campus. African American ethnicity had 23.3% or 10 participants on a high socioeconomic, low poverty campus, and 76.7% or 33 of the total 43 African American

ethnicity participants on a low socioeconomic, high poverty campus. Hispanic ethnicity had 10.7% or 21 participants on a high socioeconomic, low poverty campus and 89.3% or 176 of the total 197 Hispanic ethnicity participants on a low socioeconomic, high poverty campus. White ethnicity had 35.8% or 100 participants on a high socioeconomic, low poverty campus and 64.2% or 179 of the total 279 White ethnicity participants on a low socioeconomic, high poverty campus.

Table 4.16 provides a representation of the ethnicity and campus type for year one. Grade types included elementary (prekindergarten-grade 5), middle school (grade 6-grade 8), and high school (grade 9-grade 12).

Table 4.16. Frequencies and Percentages of Participants by Ethnicity and Grade Type (Year 1)

Ethnicity	Elementary		Grade Type Middle School		High School		Total
	N	%	N	%	N	%	
Native American	1	100.0	0	0.0	0	0.0	1
Asian, Pacific Islander	1	17.7	2	33.3	3	50.0	6
African American	17	39.5	10	23.3	16	37.2	43
Hispanic	104	52.8	50	25.4	43	21.8	197
White	135	48.4	75	26.9	69	24.7	279
Total	258	49.0	137	26.0	131	25	526

In year one, 100% or 1 of 1 of the Native American ethnicity secured a teaching position at elementary grade type. Asian/Pacific Islander ethnicity had 17.7% or 1 participant at the elementary grade type, 33.3% or 2 at the middle school grade type, and 50% or 3 of the total 6 Asian/Pacific Islander ethnicity participants were represented at the high school grade type. African American ethnicity had 39.5% or 17 participants at the elementary grade type, 23.3% or 10 at the middle school grade type, and 37.2% or 16 of the total 43 African American ethnicity participants were represented at the high school grade type. Hispanic ethnicity had 52.8% or 104 participants at the elementary grade type, 25.4% or 50 at the middle school grade type, and 21.8% or 43 of the total 197 Hispanic ethnicity participants were represented at the high school grade type. White ethnicity had 48.4% or 135 participants at the elementary grade type, 26.9% or 75 at the middle school grade type, and 24.7% or 69 of the total 279 White ethnicity participants were represented at the high school grade type.

Table 4.17 provides a rendering of the ethnicity and campus type for year three. Grade types included elementary (prekindergarten-grade 5), middle school (grade 6-grade 8), and high school (grade 9-grade 12). Table 4.17 includes four participants who fit into the “both” category. These four participants were classified as elementary, middle school, or high school in year one and later moved to a campus that served a mixture of grades and, therefore, no longer fit into one of the established categories of elementary, middle school, or high school.

Table 4.17. Frequencies and Percentages of Participants by Ethnicity and Grade Type (Year 3)

Ethnicity	Grade Type								Total
	Elementary N	%	Middle School N	%	High School N	%	Both N	%	
Native American	0	0.0	0	0.0	0	0.0	0	0.0	0
Asian, Pacific Islander	1	33.0	2	67.0	0	0.0	0	0.0	3
African American	13	37.1	10	28.6	12	34.3	0	0.0	35
Hispanic	86	51.2	40	23.8	40	23.8	2	1.2	168
White	109	50.9	56	26.2	47	22.0	2	.9	214
Total	209	49.8	108	25.7	99	23.6	4	.9	420

In year three, 0% the Native American ethnicity secured a teaching position at any of the established grade types. Asian/Pacific Islander ethnicity had 33% or 1 participant at the elementary grade type, 67% or 2 at the middle school grade type, and 0 of the total 3 Asian/Pacific Islander ethnicity participants were represented at the high school grade type. African American ethnicity had 37.1% or 13 participants at the elementary grade type, 28.6% or 10 at the middle school grade type, and 34.3% or 12 of the total 35 African American ethnicity participants were represented at the high school grade type. Hispanic ethnicity had 51.2% or 86 participants at the elementary grade type, 23.8% or 40 at the middle school grade type, 23.8% or 40 at the high school grade type, and 1.2% or 2 of the total 168 Hispanic ethnicity participants were represented at the

“both” grade type. White ethnicity had 50.9% or 109 participants at the elementary grade type, 26.2% or 56 at the middle school grade type, 22% or 47 at the high school grade type, and .9% or 2 of the total 214 White ethnicity participants were represented at the “both” grade type.

The next set of crosstabulations examines the dependent variable of teacher retention. For the purpose of this study, retention was defined as an intern who is teacher of record in the fall of year 1 and is still employed as teacher of record in the fall of year 3.

Table 4.18 represents data related to teacher retention and gender. Male participants were retained at a higher rate than were female participants. The data show that 83.8% or 124 of the 148 male participants were retained, while 16.2% or 24 males were not retained. The data show that 77.2% or 292 of the 378 female participants were retained, while 22.8% or 86 females were not retained.

Table 4.18. Frequencies and Percentages of Participants by Teacher Retention and Gender

Gender	Retained				Total
	N	No %	N	Yes %	
Female	86	22.8	292	77.2	378
Male	24	16.2	124	83.8	148
Total	110	20.9	416	79.1	526

Table 4.19 depicts data related to teacher retention and ethnicity. Hispanic participants were retained at a higher rate than were other participants. The researcher found that 0% Native American ethnicity participants were retained. Asian/Pacific Islander ethnicity had 66.7% or 4 participants out of a total of 6 retained and 33.3% or 2 participants not retained. African American ethnicity had 81.4% or 35 participants out of a total of 43 retained and 18.6% or 8 participants not retained. Hispanic ethnicity had 84.3% or 166 participants out of a total of 197 retained and 15.7% or 31 participants not retained. White ethnicity had 75.6% or 211 participants out of a total of 279 retained and 24.4% or 68 participants not retained.

Table 4.19. Frequencies and Percentages of Participants by Teacher Retention and Ethnicity

Ethnicity	Retained				Total
	No N	No %	Yes N	Yes %	
Native American	1	100.0	0	0.0	1
Asian, Pacific Islander	2	33.3	4	66.7	6
African American	8	18.6	35	81.4	43
Hispanic	31	15.7	166	84.3	197
White	68	24.4	211	75.6	279
Total	110	20.9	416	79.1	526

### *Research Question One*

The first research question reads, “Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?”

In order to answer the first question, the researcher examined the data provided through the collection of data related to the independent variables and the dependent variable. The independent variables included the socioeconomic status and grade type of the campuses on which participants were teaching, the gender of the participants, and the ethnicity of the participants. The dependent variable was retention. Specifically, the dependent variable determined whether or not the participants were retained as teachers in Region 20, Texas.

The statistical procedure logistic regression was utilized. Logistic regression is an extension of the statistical procedure multiple regression, utilized in situations where the dependent variable is not a continuous or quantitative variable (George & Mallery, 2000). The value being derived through logistic regression is a probability ranging from 0 to 1 that specifies the likelihood of a particular outcome (Mertler & Vannatta, 2002). Logistic regression produces a regression equation that predicts the probability of whether an individual will fall into one category or the other. In the case of this study, the researcher aimed to predict whether or not the independent variables could be used to predict the retention of TOPP interns.

Table 4.20 depicts a model that the researcher used to evaluate the goodness-of-fit test. This test compares the actual values for cases on the dependent variable with the



predicted values of the dependent variable. This test determines the joint predictive ability of all the covariates in the model. A significance value of  $< .001$  is needed for the researcher to state that the model is significant (Mertler & Vannatta, 2002). In this case, the significance level was found to be .191. As a result, the researcher concluded that the model is not suited for retention prediction when using the dependent variables that were utilized in this study.

Table 4.20. Omnibus Tests of Model Coefficients

		Chi-Square	df	Sig.
Step 1	Step	6.114	4	.191
	Block	6.114	4	.191
	Model	6.114	4	.191

Table 4.21 provides information related to the overall model fit. The -2 Log likelihood indicates that the model does not fit the data. A perfect fit has a value for this measure equal to 0 (George & Mallery, 2000). The Cox & Snell R Square and the Nagelkerke R Square indicate the proportion of variability in the dependent variable that may be accounted for by all predictor variables included in the equation (Mertler & Vannatta, 2002). The model summary clearly indicates that the model is not a good fit.

Table 4.21. Model Summary

Step	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
1	533.347 <sup>a</sup>	.012	.018

<sup>a</sup>Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 4.22 provides information specifically related to the dependent variable, teacher retention. The classification table compares the predicted values for the dependent variable, based on the logistic regression model, with the actual observed values from the data (Mertler & Vannatta, 2002). This indicates that the statistical calculations associated with this data suggest that these dependent variables are not suited for determining retention. The model predicts that all 526 participants will be retained. In other words, there is no difference in the characteristics of those who were retained versus those who were not retained.

Table 4.22. Classification Table<sup>a</sup>

Observed			Predicted Retained 3 years in ESC-20		Percentage Correct
			No	Yes	
Step 1	Retained 3 years In ESC-20	No	0	110	.0
		Yes	0	416	100.0
	Overall Percentage				79.1

<sup>a</sup>The cut value is .500.

Table 4.23, the last table analyzed, is the table of Variables in the Equation. This is the table of coefficients for variables included in the model. The values labeled *B* are Beta values which are the standard regression coefficients, or the weights for each variable used in the equation. The Wald statistic, along with the associated significance value, is used to test the significance of each predictor, or independent variable. The Exp(B) is an odds ratio that provides a method for interpreting the regression coefficients (Mertler & Vannatta, 2002). An odds ratio of 1 equates to no association. The greater this number, the greater the odds of association between variables.

The selected demographic variables analyzed in this study cannot be used to predict the retention of teachers in Region 20, Texas, who are certified through the TOPP in Education Service Center, Region 20, Texas. The significance values are all greater than .05. The significance value for gender is .068. The significance value for ethnicity is .367. The significance value for socioeconomic status is .797. The significance value for grade type is .165. This data are presented in Table 4.23.

Table 4.23. Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp (B)
Step <sup>a</sup> 1	GENDER_N(1)	-.482	.264	3.334	1	.068	.617
	Ethnicity	-.145	.161	.813	1	.367	.865
	LowSES1(1)	-.067	.260	.066	1	.797	.935
	GRTYPE13	-.196	.141	1.929	1	.165	.822
	Constant	2.700	.807	11.188	1	.001	14.873

<sup>a</sup>Variable(s) entered on step 1: GENDER\_N, Ethnicity, LowSES1, GRYTPE13.

### Demographic Data: Sub-Sample

The sub-sample for this study consisted of ten teachers who completed the TOPP program and were classified as retained in the field of education. Purposeful selection was utilized in order to obtain a sub-sample that was representative of the population. The sub-sample consisted of: (a) 60.0% or 6 females and 40.0% or 4 males; (b) 30.0% or 3 Hispanic ethnicity participants and 70.0% or 7 White ethnicity participants; (c) 40.0% or 4 of the participants worked in an elementary (prekindergarten-grade 5) setting, 40.0% or 4 worked in a middle school (grade 6-grade 8) setting, and 20.0% or 2 worked in a high school (grade 9-grade 12) setting; and (d) 90.0% or 9 participants worked in a high poverty, low socioeconomic school setting and 10.0% or 1 worked in a low poverty, high socioeconomic school setting. This information is detailed in Table 4.24.

Table 4.24. Frequencies and Percentages of Participants in Sub-sample by Gender, Ethnicity, Grade Type, and Socioeconomic Status of Campus

Identification Number	Gender	Ethnicity	Grade Type	Low SES/ High Poverty
138	F	W	E	N
209	M	W	H	Y
173	F	W	M	Y
205	F	H	H	Y
210	M	H	M	Y
239	M	H	M	Y
240	M	W	M	Y

Table 4.24 (continued)

Identification Number	Gender	Ethnicity	Grade Type	Low SES/ High Poverty
258	F	W	E	Y
261	F	W	E	Y
276	F	W	E	Y
Total	F=6 (60%) M=4 (40%)	W=7 (70%) H=3 (30%)	E=4 (40%) M=4 (40%) H=2 (20%)	N=1 (10%) Y=9 (90%)

Gender: F=Female M=Male.

Ethnicity: W=White H=Hispanic.

Grade Type: E=elementary (PK-5) M=middle (6-8) S=secondary (9-12).

Low SES/High Poverty: N=No (less than 50% qualify for free and reduced lunch program)

Y=Yes (50% or more qualify for free and reduced lunch program).

### *Research Question Two*

“What variables influence the retention of teachers who are certified through the TOPP as reported by selected teachers who have completed the TOPP in Region 20, Texas?” was research question number two. Information related to this question was obtained through ten face-to-face, one-on-one survey interviews. The responses to the interview questions varied greatly. However, some common themes did emerge. The researcher identified and explained the common themes through summary as well as direct quotes from the interview participants.

Each interview was conducted using a series of seven survey interview questions (Appendix B). The questions were used to guide the conversation related to variables

that influenced the retention of the ten participants interviewed. Several themes emerged as a result of the purposeful conversation with participants. All responses associated with individuals will be denoted through the use of a participant number rather than name, so as to protect the identity of the interview participant.

The need for teachers and the ability to retain highly qualified teachers in the field of education has been an area of debate receiving a lot of attention since the 1980's. The use of alternative certification programs has been one solution to this, sometimes, controversial topic. While alternative certification programs vary greatly in structure and quality, the TOPP program is arguably one of the better, higher quality programs possessing many of the standards Berry (2001) determined that high quality alternative certification programs should possess. Berry suggested that high quality alternative certification programs contain several key elements. First, they must provide a strong academic and pedagogical component. Secondly, they must include an intensive field experience in an internship or student teaching. Next, a high quality alternative certification program requires all teachers to meet all of the state's standards for subject matter and teaching knowledge. Lastly, all teachers must meet the state's teacher quality standards.

The intent of this study was twofold: first, to determine whether or not there were specific demographic variables associated with retention rates, and secondly, to identify variables that impacted the retention of TOPP completers who were retained. What factors, other than demographic variables, play a role in retaining teachers who complete an alternative certification program? What can we do and/or provide to teachers who

complete an alternative certification program so as to retain them in the field? What are we doing that works and has proven to impact their retention?

When I visited with the ten participants who participated in the survey interview portion of the study, I always started the interview with the same prompt:

Describe any variables that played a role in your being retained in the field of education as a teacher. This might include, but is not limited to, new teacher induction programs, mentors, financial incentives, location of school, teaching assignments, administrative support, and professional growth opportunities.

Seven of the ten participants replied with a statement related to their personal commitment to the field of education or the kids.

Participant number 138 stated, “It is something I’ve always wanted to do. I like it.” Participant number 209 replied by saying, “I’ve always wanted to be in education. Personal and professional growth.” The teacher continued later in the interview that he had grown up in the area and was a product of the district and wanted to give back to the community. Participant number 173 indicated that she wanted to “go where my heart really was.” She continued by saying, “My heart wasn’t there. I wanted to do something I enjoy – where my creativity comes out.” Participant number 205 stated, “I like working with kids. Kids need consistency – especially at-risk kids.” Participant number 239, a teacher in a Life Skills unit, also supported this notion of the internal drive related to working with kids. He stated, “I have a couple of cousins with downs. My love for them is profound. Seeing them grow and develop – to see that reward and that happiness in their eyes. Working with these kids is very rewarding.” Participant number 210 stated, “These kids are our future. The enjoyment of helping kids.” Participant number 240 relayed a message related to the love of teaching as well as a personal connection when

he stated, “The love of teaching. I enjoy teaching. My son was in special education – a speech delay. I decided special education would be a good field.”

Additional responses related to variables that played a role in the participant’s retention in the field of education were varied. Six major themes emerged as a result of this question. The first theme, personal commitment to the field of education or the kids, is described in the previous paragraph. The other themes include a mentor, team support, administrative support, new teacher induction, and teaching calendar/schedule.

The TOPP requires each participating school to provide a mentor for each intern during their first year of teaching. This requirement also has some parameters that involve teacher observations with feedback opportunities. Eight of the ten interviewed participants indicated that a mentor played an important role in their being retained. In some cases, it was the formal, assigned mentor who was required through TOPP. In other cases, it was an informal mentor who the participant found on his or her own. Participant number 239 stated, “The mentor program required by TOPP was a lot of help. Showing me the ropes, the ARD paperwork, and help with problems.” Participant number 276 felt that the mentor was a critical component related to her retention and success the first year. She stated,

I had a good mentor. Some people didn’t have a good mentor – they were on different grade levels. Mine was across the hall, on the same grade level; we planned together, observed one another. We are still friends to this day. She no longer teaches.

Participant number 240 gave a very thoughtful response related to his mentor. He stated, “My predecessor was my mentor. He helped me a lot. Helped me to understand others perspective related to special education. We did some planning together. We



discussed planning options. He helped me a lot – brainstorming, ARD paperwork, the laws.”

Two of the ten participants interviewed felt that the mentor had no impact on their retention in the field of education. Participant number 138 stated, “The mentor was not a factor.” Participant number 210 stated, “It was not mentoring. It wasn’t much help.”

The notion of overall team support was evident in a number of the responses provided by the ten participants. Six of the participants mentioned team or grade-level support as a variable that played a role in their being retained in the field. Participant number 138 stated that the third grade team helped and that they were a “tight” team. Participant number 173 reported that while her mentor was very available, additional support came from the librarian, the instructional specialists, and the whole campus. She went on to say, “That is why I plan to stay here.” Participant number 205 worked in a classroom with two other teachers, supporting students who were in credit recovery for various content areas. She alluded to the fact that the three of them have supported one another and that another benefit of this model was the fact that she always had experienced teachers readily available to her for advice and guidance. Participant number 276 stated that her grade-level team was instrumental in her retention. She explained that they “plan together and vacation together.” She went on to state, “We are very close. If you work well together, it makes work fun. You can vent, brainstorm. It makes it easier to problem solve and intervene with students.” Participant number 258 stated that her team was helpful because some of them had also gone through TOPP.

Many of the participants commented on the support of the campus administration. Participant number 138 lives a considerable distance from the school and school district in which she is teaching. In fact, she travels through three school districts to get to her school. She stated, “The principal and vice principal are the main reason I stay here.” Participant number 276 commented, “The principal was very supportive. She arranged for observations and provided for coverage.” Participant number 258 stated that both her principal and vice principal had gone through TOPP. As a result, “they were both very supportive and helpful.”

A number of the participants commented that their school or school district had a new teacher induction program at the start of the school year. These programs ranged from a weeklong institute to a three-day workshop to nothing at all. Comments related to the effectiveness of the induction program were mixed. Participant number 138 stated that the one-week institute was “extremely helpful” and provided a number of resources for her. Participant number 209 stated that the three-day workshop provided an overview of the handbook, policies/procedures, and showed him “the ropes.” Participant number 205 reported that the three-day new teacher induction program at her district was, “overwhelming and a lot of information.”

While the teaching calendar and schedule was the primary response for only one of the ten participants, three others did mention this as being a factor in their being retained in the field of education. Participant number 205 stated that the scheduling, specifically, the hours and days off, did play a role in her retention. Participant number 239 reported, “the time off compensates for the pay. Vacation time helps. I was thrown

into the teaching field with no student teaching. So the time off was helpful.” Participant number 276 reported that being on the same calendar as her kids was a factor for her. Participant number 261 stated that one of the factors that impacted her retention was the summers off. She went on to state, “We work hard when we work. Christmas and spring break too. The time with my kids.”

When I asked participants to talk to me about the least significant variable in their being retained in the field of education, responses varied. One common answer related to the pay. Three participants commented that the pay did not impact their decision to stay in the field of education. Participant number 173 stated that while the salary was lower in her district than a neighboring district, “all of the positive things outweighed that – there were too many other positives.” Participant number 240 also supported this notion when he stated, “Probably the money. I do have two kids – 13 and 15, and a wife, but money has never been a big issue.” Perhaps participant number 239 said it best when he stated, “Pay – money isn’t everything.”

Two of the ten participants stated that the location of their school did not play a role in their being retained in the field. In other words, as long as they were comfortable in their school, they were willing to drive a distance to get there. Participant number 205 stated, “Location does not play a role. I drive some distance.” I later determined that she lived approximately 20 miles from the school.

When asked which variable played the most significant role in their being retained, responses varied. Six of the ten participants commented that something related to their personal commitment to the field of education or the kids has played the most

significant role. One participant commented that the administrative support was most instrumental. One participant concluded that their mentor was most instrumental in their retention. Another participant stated that the calendar or schedule was the main reason they have been retained. The last of the ten participants associates her retention with a concept that is broader in nature – relationships. Participant number 258 stated,

A lot of commonalities with others in the profession. I enjoy being around other teachers. I love working with the kids. Having a good administration is huge. We enjoy each other's company. We work well as a team. We are friends outside of work too – we go to movies and happy hour.

I want to springboard on this notion of relationships. While a number of factors impacted the retention of the ten participants interviewed, relationships may be the broader concept that links many of the factors discussed in the interviews. The relationships that I discovered included team and grade-level relationships, relationships with administration, and relationships with other TOPP interns as well as TOPP staff. But, perhaps most critical in retaining teachers is the relationship they have fostered within their grade-level team or department. This is evident in a number of the responses provided by the participants.

Participant number 138 stated that the third grade team is “tight.” Participant number 209 worked on a high school campus as a coach and special education teacher. A number of the other coaches were also special education teachers. He stated, “We spend a lot of time together.” Participant number 173 explained that the support of the administration was the most critical variable in her being retained. She went on to explain that, “Their door is always open. They are there for you. It is an open, positive environment. I've translated this to the classroom.” Participant number 240 credits his

retention, partly, to the relationships he has built with the parents in the community. As a special education teacher, he has a lot of opportunities to communicate with parents. He commented, “The parental support was not here when I got here. I’ve been able to build rapport. I talked with the kid’s parents a lot. I’ve seen a change in parental attitudes. The parent growth is another reason I am still here.” Participant number 276 associates her retention with the relationships she has built with her team. She stated, “We plan together and vacation together. We are very close. If you work well together, it makes work fun.” She went on to state, “The work environment keeps me here. Once you find a good spot and you’re comfortable, you don’t want to change it and start over.”

Many of the comments and insights provided by the participants in the ten survey interviews I completed align with the current literature and research related to teacher retention. Their retention is impacted more by support mechanisms than it is by pay and other incentives. Regardless of the type of certification program a teacher completes, this type of support is instrumental in retaining teachers. It is through such support mechanisms that relationships are fostered.

A review of ten studies related to mentoring and teacher retention conducted by Ingersoll and Kralik (2004) provide empirical support that providing teacher support, particularly mentoring, has a positive impact on teachers and retention. Relationships can serve to help new teachers learn the ropes and have a positive experience from the start (Villani, 2002). Villani’s research identified several studies that determined the positive impact that these initial relationships can have on new teachers’ orientation to

the school system and socialization to the school culture. As described in Chapter II, mentor relationships can have a positive impact on teacher retention.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

This chapter contains a summary of the study as well as conclusions. Chapter V is divided into three major sections. The first section presents a summary of the study, the procedures, and the author's findings based upon the research questions that were posed. The second section presents the conclusions and implications that were derived from the data as well as the review of the literature. The third section includes the recommendations for further study.

#### **Summary**

The primary purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas, as reported by Education Service Center, Region 20, Texas. Demographic variables from the Teacher Orientation and Preparation Program (TOPP) completers were analyzed to determine their association with retention rates. Additionally, survey interviews were conducted to provide additional information related to retention rates of TOPP completers.

Through the examination of the data obtained through the statistical analysis, as well as survey interviews, the following research questions were addressed:

1. Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?

2. What variables influence the retention of teachers who are certified through the TOPP as reported by selected teachers who have completed the TOPP in Region 20, Texas?

This study was conducted during the spring of 2004, fall of 2005, and spring of 2005. The population of the study was teachers who completed the Teacher Orientation and Preparation Program in Education Service Center, Region 20 from 1999-2004. The population consisted of five TOPP cohorts. The cohorts included TOPP classes from 1999-2000, 2000-2001, 2001-2002, 2002-2003, and 2003-2004.

Following a review of the literature, contact was made with the Executive Director of Education Service Center, Region 20, and he was informed of the interest in conducting a study on the alternative certification program, TOPP, in Region 20. After discussing the study, the Executive Director granted permission to conduct the study. A letter outlining the data request for the study (Appendix C) was developed and an open records request (Appendix D) was completed and both were presented to the Executive Director. Permission to move forward with the study was obtained after securing the signature of the Executive Director.

Data relating to the demographic variables and retention rates of the population being examined were obtained. The population for the study consisted of 537 participants, who completed the TOPP from 1999-2004. The data were analyzed using a personal computer and the software package SPSS Version 11.0, specifically the subroutine logistic regression.



A sub-sample of ten from this population of 537 was identified. The ten were chosen based on demographic characteristics. The sub-sample that was chosen was representative of the total population. The researcher contacted each participant from the sub-sample by phone and arranged for one-on-one survey interviews. All interviews were conducted before and after school as well as during teacher planning periods on the campus on which the participant worked. The interview data were analyzed and themes and commonalities were identified.

As described in Chapter II, the need for teachers in the United States continues to be an issue of great concern. Lucksinger (2000) has found that estimates indicate that in the next ten years, nearly two million new teachers will be needed to meet the increasing enrollments in America's schools. Lucksinger further points out that our current system will produce half that amount or one million new teachers. And of those one million new teachers over the next ten years, 20 to 40% will leave within their first two years in the profession. Other data suggest that between 40 and 50% will leave within the first five years (Ingersoll & Smith, 2003). Lucksinger (2000) also points out that the majority of this need will be in low-wealth urban and rural school districts.

Compounding the issue of teacher retention is the associated cost to school districts and taxpayers. Researchers from a study in Texas reported that the state's annual turnover rate of 15% costs the state approximately \$329 million a year (Texas Center for Educational Research, 2000). The study also showed that the state had a 40% turnover rate for teachers in their first three years. The cost to the state equates to approximately \$8,000 per recruit who leaves in the first few years of teaching. A report

compiled by Strayhorn (2004) estimates that the cost of teacher turnover for 2003-2004 to be \$13,161 per teacher. The number of teachers who did not return to teaching in 2003-2004 in the state of Texas was 36,322 (Strayhorn, 2004). This equates to a total teacher turnover cost of \$478 million for the 2003-2004 academic year.

It is for the reasons noted above that it is essential that states such as Texas recruit and retain teachers. One avenue to do such is through alternative certification programs such as TOPP. As a result, an attempt was made to determine if specific demographic variables were associated with TOPP completers who were retained in the field. Such information could be helpful in recruiting TOPP interns as well as informing retention efforts. The observed demographic variables could not be found to be associated with retention. In addition, the researcher hoped to identify other variables that impacted the retention of the TOPP completers. While this data cannot be generalized to the population, the data were insightful and oftentimes aligned with current research findings. This will be detailed in the Conclusions portion of this chapter.

## **Conclusions**

### *Research Question One*

“Do selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP as reported by personnel in Education Service Center, Region 20, Texas?”

## Conclusions

The statistical procedure, logistic regression was utilized to address question one. The model was first tested using an Omnibus Test of Model Coefficients. A significance value of  $< .001$  was needed for the researcher to state that the model was significant (Mertler & Vannatta, 2002). In this case, the significance level was found to be .191. As a result, the researcher concluded that the model was not a good fit. The next procedure the researcher used was the -2 Log likelihood. This, too, indicated that the model does not fit the data. A perfect fit has a value for this measure equal to 0 (George & Mallery, 2002) while the model for this research produced a value of 533.347. The Cox & Snell R Square and the Nagelkerke R Square both indicate that the model is not a good fit.

The classification table provides a comparison of the predicted values for the dependent variable, based on the logistic regression model, with the actual observed values from the data (Mertler & Vannatta, 2002). The model shows that there is no difference in the 110 participants who were not retained when compared to the 416 participants who were retained. The model predicts that, based on the demographic characteristics analyzed by this researcher, all 526 participants would be retained. This indicates that the statistical calculations associated with this data suggest that the dependent variables are not suited for determining retention.

The model indicates that the selected demographic variables analyzed in this study cannot be used to predict the retention of teachers in Region 20, Texas, who are certified through the TOPP in Education Service Center, Region 20, Texas. The significance values were all greater than .05. The significance value for gender was .068.

The significance value for ethnicity was .367. The significance value for socioeconomic status was .797. The significance value for grade type was .165.

### **Implications**

Based on this study, the researcher concluded that the demographic variables analyzed cannot be used to predict teacher retention. As a result, the recruitment efforts of the TOPP staff and Education Service Center, Region 20, should not be limited to or adjusted to potential candidates who possess these demographic characteristics. The likelihood of a TOPP intern being retained in the field relies more heavily on variables other than those identified in this study.

The research literature associated with retention indicates that the variables that impact teacher retention align less with gender, ethnicity, socioeconomic status of the campus, and grade type than they do with other variables. Other variables that align with retention rates might include mentor relationships, ongoing support, and internal rewards associated with relationships and making a difference (Feiman-Nemser, 2003; Hope, 1999; Williams, 2000).

According to Olson (2000a), first-year teachers who do not participate in mentor programs are nearly twice as likely to leave the teaching profession after their first three years when compared to those who do participate in such programs. According to Darling-Hammond (2003), a number of researchers have found that mentoring programs raise retention rates for new teachers by improving their attitudes, feelings of efficacy, and instructional skills.

It is recommended that TOPP and other alternative certification programs continue to determine effective avenues to address retention of teachers who complete their programs that are aligned with those identified in the research to have positive effects. The research clearly indicates that implementation of support programs, such as mentor programs and purposeful and systemic support, can positively impact retention rates.

While approximately 74.5% of the TOPP interns worked at low socioeconomic, high poverty campuses their first year, 76.4% remained on such campuses their third year. This would suggest that this factor did not play a role in their retention. As a result, TOPP staff need not consider the socioeconomic status of the campus when seeking employment opportunities for participants because it likely will not be a factor in their retention.

### *Research Question Two*

“What variables influence the retention of teachers who are certified through the TOPP as reported by selected teachers who have completed the TOPP in Region 20, Texas?”

### **Conclusions**

The study determined that the variables that impacted the retention rate of the participants who participated in the survey interview are closely aligned with those that the researcher found in the literature. A common theme that emerged was that of the impact of relationships on an individual’s decision to stay in the field of education and, more specifically, to stay at a particular campus. A number of the participants indicated

that an individual or group of individuals and the relationship associated with that individual or group of individuals was a critical factor associated with their still being employed as a teacher. Hope (1999) reported that collegiality is an important element that can enhance retention. Hope goes on to state that when new teachers and peers are given opportunities to connect, the relationships that develop are mutually beneficial to the teachers involved.

Retention is impacted when teachers are “able to fulfill strong personal needs for autonomy and creativity in their classrooms, and their rewards are meaningful relationships and the knowledge that they are making a difference in the lives of their students” (Williams, 2000, p. 74). This concept of relationships and personal commitment to the field of education or the kids surfaced time and again in the survey interviews.

In addition to relationships and making a difference in the lives of children, other common indicators that the interview participants associated with their retention included mentor support, team support, administrative support, new teacher induction programs, and the advantages related to the teaching calendar/schedule. Each of these variables can be found in the literature related to teacher retention (Linton & Kester, 2002; Renard, 2003; Rowley, 1999; Sargent, 2003; Williams, 2000).

### **Implications**

Regardless of the path to certification, whether it be through a traditional university program or an alternative certification program, the need to support beginning teachers is relevant. While the teachers who participated in the survey interview for this

study were all alternative certification participants, their needs, while unique in some ways, mirrored the needs of many beginning educators. Their responses indicated the need for support from colleagues and administration and the need for someone to show them the ropes and for someone to listen to them vent. Other needs included the provision for a person to act as a sounding board and a person with whom to brainstorm and share ideas.

Staffs in teacher preparation programs as well as school districts need to understand and value the unique needs of new teachers. In response to this unique set of needs, teacher preparation programs and school districts need research-based support mechanisms to support beginning educators. These support mechanisms need be systemic and provide for support of all beginning educators for a minimum of one year, with three years being optimal (Olson, 2000a). Such programs should be immediate, based on the developmental needs of the new teachers, systemic in nature so that they fit into the big picture, and align with the school system (Steffy, Wolfe, Pasch, & Enz, 2000). Effective programs of this nature are designed within the context of the school's culture and are part of the larger staff development program (Brock & Grady, 2001).

### **Recommendations**

The major purpose of this study was to determine the impact of an alternative certification program on the retention of teachers in Region 20, Texas. A secondary purpose of this study was to determine if selected demographic variables predict the retention of teachers in Region 20, Texas, who are certified through the TOPP. An additional purpose of this study was to determine what variables influence the retention

of selected teachers who are certified through the TOPP. Based upon review of the literature, the findings of this study, and the conclusions drawn from this research, the following recommendations are provided:

*Recommendations Based on This Study*

1. Since the collected data indicated that the select demographic variables do not influence the retention of teachers in the TOPP program, the program coordinators should not focus their recruitment or retention efforts on groups of individuals possessing these demographic characteristics.
2. Since the current literature and the collected data indicated that variables such as personal commitment to the field of education or the kids, providing for a mentor, team support, administrative support, and new teacher induction programs impact the retention of teachers, the program coordinators should focus efforts, attention, and resources on the development of programs that support these variables.
3. Since the current literature and the collected data from the sub-sample indicated that the variables that impact the retention of teachers are similar for traditional university certification programs and TOPP, program coordinators as well as district and university staff should focus efforts, attention, and resources on the development of programs that support all beginning educators, regardless of certification path.
4. Since the collected data indicated that this program served the unique needs of 526 TOPP completers between the years of 1999 and 2004, it is



recommended that the program coordinators continue to provide this path to certification to help in addressing the teacher shortage in the Region 20 area.

5. Since the collected data indicated that this program had an overall retention rate of 79.1%, it is recommended that the program coordinators continue to seek out and build upon strategies and ideas to increase the retention rate of educators who complete certification through this program.
6. Since the current literature and the state of Texas have identified the attrition of teachers as one of the reasons for the current teacher shortage, the appropriate state officials should re-examine current practices to consider funding research-based practices, such as the ones indicated in this study, to increase teacher retention, thereby reducing high costs associated with recruitment efforts.

#### *Recommendations for Further Research*

The following are recommendations for further research related to this area:

1. Longitudinal research that tracks alternative certification program participants in regards to performance.
2. Research that reflects the perceptions of superintendents, central office staff, and campus administrators regarding the effectiveness of alternative certification programs.
3. Research that reflects the retention rate of alternative certification program participants statewide as well as nationwide.

4. Further study on demographic in addition to other variables that may predict the retention of teachers who participate in an alternative certification program.

## REFERENCES

- Berry, B. (2000). Quality alternatives in teacher preparation: Dodging the “silver bullet” and doing what is right for students. *The State Education Standard*, 1(1), 21-25.
- Berry, B. (2001). No shortcuts to preparing good teachers. *Educational Leadership*, 58(8), 32-35.
- Berube, M.S. (Ed.). (1985). *The American heritage dictionary* (2<sup>nd</sup> ed.). Boston: Houghton Mifflin.
- Blair, J. (2003, January). Skirting tradition. *Education Week*, 22(17), 35-38.
- Brock, B.L. & Grady, M.L. (2001). *From first-year to first-rate: Principals guiding beginning teachers*. Thousand Oaks, CA: Corwin Press.
- Colley, A.C. (2002). What can principals do about new teacher attrition? *Principal*, 81(4), 22-24.
- Compayre, G. (1907). *Horace Mann and the public school in the United States*. New York: Crowell.
- Cortez, A. (2001). Teacher shortages – Implications for reform and achievement for all students. *IDRA Newsletter*, 28(7), 5-7, 13-16.
- Cremin, L.A. (1957). *The republic and the school: Horace Mann on the education of free man*. New York: Columbia University, Teachers College Press.
- Darling-Hammond, L. (1990). Teaching and knowledge: Policy issues posed by alternate certification for teachers. *Peabody Journal of Education*, 67(3), 123-154.
- Darling-Hammond, L. (2000). *Solving the dilemmas of teacher supply, demand, and quality*. New York: National Commission on Teaching America’s Future.

- Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership*, 60(8), 6-13.
- DeYoung, C. & Wynn, R. (1972). *American education* (7<sup>th</sup> ed.). New York: McGraw-Hill.
- Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational Leadership*, 60(8), 25-29.
- Feistritzer, C.E. (1993). National overview of alternative teacher certification. *Education and Urban Society*, 26(1), 18-28.
- Feistritzer, C. E. & Chester, D. (2000). *Alternative certification: A state-by-state analysis*. Washington DC: National Center for Education Information.
- Fielder, E.F. & Haselkorn, D. (1999). *Learning the ropes: Teacher induction programs and practices in the United States*. Belmont, MA: Recruiting New Teachers. (ERIC Document Reproduction Service No. ED434879)
- Finn, C.E. & Madigan, K. (2001). Removing the barriers for teacher candidates. *Educational Leadership*, 58(8), 29-31, 36.
- Fuller, E. (2002, June). *Estimates of the shortage of Texas public school teachers in 2001 and 2002*. Austin, TX: State Board for Educator Certification.
- Gall, M., Borg, M., & Gall, J. (1996). *Educational research: An introduction* (6<sup>th</sup> ed.). New York: Longman.
- George, D. & Mallery, P. (2002). *SPSS for windows step by step: A simple guide and reference, 11.0 update* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Allyn & Bacon.

- Hope, W.C. (1999). Principals' orientation and induction activities as factors in teacher retention. *The Clearing House*, 73(1), 54-56.
- Howard, T.C. (2003). Who receives the short end of the shortage? Implications of the U.S. teacher shortage on urban schools. *Journal of Curriculum and Supervision*, 18(2), 142-160.
- Huling, L. (1998, November). *Texas Board for Educator Certification: Panel on novice teacher induction support system: Final report*. Austin, TX: Texas State Board for Educator Certification.
- Hunt, J.B. & Carroll, T.G. (2003). *No dream denied: A pledge to America's children*. Washington, DC: National Commission on Teaching and America's Future.
- Ingersoll, R.M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Education Research Journal*, 38(3), 499-534.
- Ingersoll, R.M. (2003a). The teacher shortage: A case of wrong diagnosis and wrong prescription. *NASSP Bulletin*, 86, 16-31.
- Ingersoll, R.M. (2003b). The teacher shortage: Myth or reality? *Educational Horizons*, 146-152.
- Ingersoll, R.M. & Kralik, J.M. (2004). *The impact of mentoring on teacher retention: What the research says*. Washington, DC: Education Commission of the States Research Review.
- Ingersoll, R.M. & Smith, T.M. (2003). The wrong solution to the teacher shortage. *Educational Leadership*, 60(8), 30-33.

- Jacobson, S.L. (1995). Monetary incentives and the reform of teacher compensation: A persistent organizational dilemma. *International Journal of Educational Reform*, 4(1), 29-35.
- Jorissen, K.T. (2003). Successful career transitions: Lessons from urban alternate route teachers who stayed. *High School Journal*, 86(3), 41-52.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Linton, T. & Kester, D. (2002, Winter). Keeping your new teachers: Do's and don'ts for principals. *TEPSA Journal*, 26-31.
- Lucksinger, L. (2000). Can we get them and keep them? *Delta Kappa Gamma Bulletin*, 67(1), 11-15.
- Mertler, C.A. & Vannatta, R.A. (2002). *Advanced and multivariate statistical methods: Practical application and interpretation*. Los Angeles: Pyrczak.
- Morice, L.C. & Murray, J.E. (2003). Compensation and teacher retention: A success story. *Educational Leadership*, 60(8), 40-43.
- National Center for Education Information. (2003). *Overview*. Retrieved February 6, 2003, from [www.ncei.com/2003/overview.htm](http://www.ncei.com/2003/overview.htm)
- National Center for Educational Statistics. (2002). *Digest of Educational Statistics*, 2002. Retrieved January, 10, 2004, from <http://nces.ed.gov/pubs2003/digest02>
- Ng, J. C. (2003). Teacher shortages in urban schools: The role of traditional and alternative certification routes in filling the voids. *Education and Urban Society*, 35(4), 380-398.

- Olson, L. (2000a). Finding and keeping competent teachers. *Education Week*, 19(18), 12-18.
- Olson, L. (2000b). Sweetening the pot. *Education Week*, 19(18), 28-34.
- Olson, L. (2000c). Taking a different road to teaching. *Education Week*, 19(18), 35.
- Patterson, C. (2002). *Eight facts about teacher pay and teacher retention in Texas public schools*. Austin, TX: Texas Public Policy Foundation.
- Patton, M. (1990). *Qualitative evaluation and research methods* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Renard, L. (2003). Setting new teachers up for failure...or success. *Educational Leadership*, 60(8), 62-64.
- Roach, V. & Cohen, B.A. (2002). *Moving past the politics: How alternative certification can promote comprehensive teacher development reforms*. Alexandria, VA: National Association of State School Boards.
- Rowley, J. (1999). The good mentor. *Educational Leadership*, 56(8), 20-22.
- Sargent, B. (2003). Finding good teachers – and keeping them. *Educational Leadership*, 60(8), 44-47.
- Scherer, M. (1999). *A better beginning: Supporting and mentoring new teachers*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Spring, J. (2001). *The American school: 1642-2000* (5<sup>th</sup> ed.). New York: McGraw-Hill.
- State Board for Educator Certification (SBEC). (2001). *Texas beginning educator support system* (Executive Summary Findings from the Pilot Year, 1999-2000). Austin, TX: Charles A. Dana Center.

- State Board for Educator Certification (SBEC). (2002a). *One year attrition rates for Texas public school teachers and administrators by race/ethnicity and sex (1995-1996 through 2001-2002)*. Austin, TX: Fuller.
- State Board for Educator Certification (SBEC). (2002b). *Texas beginning educator support system*. Austin, TX: Fuller.
- State Board for Educator Certification (SBEC). (2004a). *Approved programs*. Retrieved January 10, 2004, from <http://www.sbec.state.tx.us/SBECOnline/approvedprograms.asp?s=3&sid=>
- State Board for Educator Certification (SBEC). (2004b). *Elementary comprehensive Examination for Certification of Educators in Texas (ExCET) and the grade-level appropriate Texas Examination of Educator Standards (TExES)*. Retrieved March 7, 2004, from [http://www.excet.nesinc.com/TE\\_aboutTExES.htm](http://www.excet.nesinc.com/TE_aboutTExES.htm)
- Steffy, B.E., Wolfe, M.P., Pasch, S.H., & Enz, B.J. (Eds.). (2000). *Life cycle of the career teacher*. Indianapolis: Kappa Delta Pi & Corwin Press.
- Strayhorn, C.K. (2004). *The cost of underpaying Texas teachers* (Special Report: Texas Comptroller). Austin, TX: Author.
- Texas A&M Institute for School-University Partnerships. (1999). *Texas teacher recruitment and retention study*. Austin, TX: Texas Education Agency.
- Texas Center for Educational Research. (2000). *The cost of teacher turnover*. Austin, TX: Author.
- Texas Education Agency. (1991, April). *Alternative teacher certification in Texas* (Publication No. GE1-611-02). Austin, TX: Author.



- Texas Education Agency. (2002, September 30). *Policy guidance for No Child Left Behind: Public Law 107-110*. Austin, TX: Author.
- Texas Education Agency. (2003a, May 7). *NCLB Bulletin 1*(1), 1-10.
- Texas Education Agency. (2003b, October 21). *NCLB Bulletin 1*(2), 1-3.
- Texas Education Agency. (2003c). *NCLB parent notification requirements related to highly qualified teachers*. Retrieved February 6, 2004, from <http://www.tea.state.tx.us/taa/>
- Texas Education Code. (1997). *TEC 8.002 (Chap. 8)*. Retrieved November 4, 2003, from <http://www.capitol.state.tx.us/statutes/edtoc.html>
- Texas Education Code. (2004). *TEC 21.049a (Chap. 21)*. Retrieved March 10, 2005, from <http://www.capitol.state.tx.us/cgi-bin/cqcgi>
- Texas Region 20 Education Service Center. (2002). *Teacher Orientation and Preparation Program (TOPP)*. Retrieved February 6, 2002, from <http://www.esc20.k12.tx.us/topp/>
- Texas Region 20 Education Service Center. (2003). *Teacher Orientation and Preparation Program (TOPP) handbook*. Retrieved January 10, 2004, from <http://www.esc20.net/topp/PDFs/0304handbook.pdf>
- Villani, S. (2002). *Mentoring programs for new teachers*. Thousand Oaks, CA: Corwin Press.
- Williams, J. (2000). Why great teachers stay. *Educational Leadership*, 60(8), 71-74.
- Wright, S. (2001). The alternative route to certification. *Techniques: Connecting Education & Careers*, 76(5), 24-27.

**APPENDIX A**  
**INFORMED CONSENT DOCUMENT**

## Informed Consent Document

### **The Impact of an Alternative Certification Program on Teacher Retention in Selected Texas Public School Districts as Reported by Personnel in Education Service Center, Region 20 Texas**

I will participate as an interview respondent in a doctoral research project, supervised by Dr. Clifford Whetten. This study will explore retention rate of teachers who complete an alternative certification program in selected public school districts in Education Service Center, Region 20, Texas. All teachers interviewed will have successfully completed the Teacher Orientation and Preparation Program (TOPP) alternative certification program through Education Service Center, Region 20. Additionally, all teachers interviewed will have been retained in the field of education for three or more years. Data on all TOPP participants for the years of 1999 – 2004 will be analyzed. To complete this study, ten teachers will be individually interviewed during the spring of 2005.

I give my consent for the data from my interview to be used to complete the course requirements. I understand the interview will take about one hour to complete. All information about me will remain confidential and my responses will be coded. I understand my participation in this study is voluntary, and I can withdraw from the study at any time without negative consequences. I understand there is no compensation for my participation.

I voluntarily agree to be audio taped during the survey interview. I understand that the tapes will be used only for the review and analysis of survey interview information. These tapes will be identified through a coding system. The tapes will be kept for three years and stored and secured at the researchers residence.

I understand that this research study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, I can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of Support Services, Office of Vice President for Research at (979) 458-4067 (mwibuckley@tamu.edu).

I understand the explanation provided to me and all of my questions have been answered to my satisfaction. I have read this consent form and I voluntarily agree to participate in this study. I have been given a copy of this consent form.

---

Signature of Respondent

Date

---

Jeffery Lee Goldhorn, M.Ed.  
(210) 363-8024 jeff.goldhorn@yahoo.com  
Dr. Clifford Whetten  
(210) 208-9308 cwhetten@tamu.edu

Date

**APPENDIX B**  
**SURVEY INTERVIEW QUESTIONS**

### Survey Interview Questions

1. Describe any variables that played a role in your being retained in the field of education as a teacher. This might include, but is not limited to, new teacher induction programs, mentors, financial incentives, location of school, teaching assignments, administrative support, and professional growth opportunities.
2. Of the variables described, which were provided through the school or school district?
3. Of the variables described, which were provided through other means such as your own initiative?
4. What do you believe to be the most significant variable in your being retained in the field of education? Why?
5. What do you believe to be the least significant variable in your being retained in the field of education? Why?
6. What, if any, variables do you wish your school or school district would have provided, but did not?
7. Do you believe there to be a difference in retention rates between alternatively certified and traditionally certified teachers? Why?

**APPENDIX C**  
**ESC-20 LETTER**

February 16, 2004

Dear Dr. Terry Smith:

I am a doctoral student at Texas A&M University working under the supervision of Dr. Clifford Whetten in Educational Administration. I am conducting a study exploring retention rate of teachers who complete an alternative certification program in selected public school districts in Education Service Center, Region 20. This study will hopefully provide insight into the existence of specific demographic variables that tend to positively and negatively impact retention rates of alternatively certified teachers. Additionally, the study will offer information related to the attitudes and perceptions of alternatively certified teachers in regards to their retention in the field of education.

This research study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of Support Services, Office of Vice President for Research at (979) 458-4067 (mwbuckley@tamu.edu).

The population for this study will be teachers who completed the Teacher Orientation and Preparation Program in Education Service Center, Region 20 from 1992 – 2002. The Public Education Information and Management System (PEIMS) will be used to collect demographic data on all teachers identified in the population. This data will be cross-referenced with other databanks available through Education Service Center, Region 20 to acquire additional information related to current grade placement and current socioeconomic level of campuses. A sub-sample will be identified from the population. The researcher will conduct a survey interview with the sub-sample. The sub-sample will include teachers from each grade placement category (elementary, middle school, and high school). All identifying data related to TOPP participants will be coded so as to ensure subject confidentiality.

I would like to obtain permission to access the Education Service Center, Region 20 TOPP and PEIMS databanks noted above. I will be happy to share my research findings with you and your TOPP staff upon the conclusion of my research. Your willingness to support this research is vital to the success of this study.

Please check one of the blanks below, sign and date, and return to Jeff Goldhorn in the attached self-addressed envelope. I have enclosed a copy of the letter for your records. Please contact me at (210) 363-8024 or Dr. Clifford Whetten at (210) 208-9308 should you need additional information.

Sincerely,

Jeffery Lee Goldhorn

\_\_\_\_ Yes, I agree to allow access to the Education Service Center, Region 20 TOPP and PEIMS databanks noted.

\_\_\_\_ No, I do not agree to allow access to the Education Service Center, Region 20 TOPP and PEIMS databanks noted.

---

Signature

---

Date

**APPENDIX D**  
**OPEN RECORDS REQUEST**



Jeff Goldhorn  
212 Aero Avenue  
Schertz, TX 78154  
(210) 363-8024

March 24, 2004

Dear Officer of Public Records:

This request is made under the Texas Open Records Act, Article 6252-17a, which guarantees the public's access to information in the custody of governmental agencies. In accordance with Sec. 4 of the law, which requires that the "Officer of Public Records shall promptly produce such information for inspection or duplication, or both, in the offices of the governmental body," I respectfully request access to the following information:

- A list of Teacher Orientation and Preparation Program (TOPP) completers from 1992 – 2002 (names only)
- Public Education Information and Management System (PEIMS) – demographic data of TOPP completers referenced above

Thank you for your time and attention to this matter.

Sincerely,

Jeffery L. Goldhorn

**APPENDIX E**  
**AUDIT TRAIL**

## Audit Trail

Key:

I = Interview number  
F = Female  
M = Male  
H = Hispanic ethnicity  
W = White ethnicity  
E = Elementary  
MS = Middle School  
HS = High School  
1 = low SES  
2 = high SES  
T = tape number

Participants:

138 = I1-F-W-E-2-T1  
209 = I2-M-W-HS-1-T1  
173 = I3-F-W-MS-1-T1  
205 = I4-F-H-HS-1-T1  
210 = I5-M-H-MS-1-T2  
239 = I6-M-H-MS-1-T2  
240 = I7-M-W-MS-1-T3  
258 = I8-F-W-E-1-T3  
261 = I9-F-W-E-1-T3  
276 = I10-F-W-E-1-T3

## **VITA**

JEFFERY L. GOLDHORN

194 Elk Hollow

Bulverde, Texas 78163

### **EDUCATION**

- |      |  |
|------|--|
| 2005 | Doctor of Philosophy, Educational Administration<br>Texas A&M University, College Station, Texas                 |
| 1998 | Master of Education, Educational Administration<br>Trinity University, San Antonio, Texas                        |
| 1994 | Bachelor of Arts, Elementary Education/Middle School Education<br>University of Northern Iowa, Cedar Falls, Iowa |

### **CERTIFICATIONS (State of Texas)**

Texas Educator Certificate: Mid-Management Administrator  
(Grades PK-12)

Texas Educator Certificate: Supervisor Grades (PK-12)

Texas Educator Certificate: Elementary Self-Contained (Grades 1-8)

Texas Educator Certificate: Elementary Life-Earth Science  
(Grades 1-8)

### **EXPERIENCE**

- |              |   |
|--------------|---|
| 2002-Present | Curriculum Coordinator<br>Education Service Center, Region 20<br>San Antonio, Texas |
| 1998-2002    | Vice Principal<br>Northside Independent School District<br>San Antonio, Texas       |
| 1995-1998    | Grade 5 Teacher<br>Northside Independent School District<br>San Antonio, Texas      |

This dissertation was typed and edited by Marilyn M. Oliva at Action Ink, Inc.