

AN EXPLORATION OF JOB SATISFACTION LEVELS, PATHWAYS INTO
EDUCATION, AND RECRUITING BEHAVIORS
OF TEACHERS IN INDIANA

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perspective

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ABSTRACT

Teacher retention and recruitment has been studied from many different perspectives, but there is limited research on the issue from the perspectives of current teachers. The purpose of this quantitative study was to gather data to fill a gap in the research concerning teacher recruiting behaviors by asking teachers if they were likely to encourage different categories of people (friend or relative, community member, current student, other students, recent high school graduate, and their own child) to enter the field of education as a profession. Analysis of the data from 2,083 current Indiana teachers found multiple statistically significant differences in the recruiting behaviors of those teachers with differing demographics, certification pathways, future plans, and job satisfaction levels. In addition, multiple variables (gender, age, years of experience, area of the school, future plans, and job satisfaction level) were found to be significant predictors of recruiting behaviors of teachers.

Many teachers were not recruiting others into the profession even if they were satisfied with their jobs. Teachers noted low and stagnant salaries, increased workload and expectations, current legislation that has negatively impacted the profession, and a lack of respect from legislators and the community as reasons for not recruiting. Teacher recruiting levels were lowest for those groups closest to them—friend or relative and own child. The more experience teachers had, the less likely they were to recruit which could indicate mounting frustration with the changes to the professions. Younger teachers were most likely to recruit possibly due to their fresh perspective of the profession. Teachers certified through programs other than a traditional

4-year degree program were more likely to recruit which could indicate that experience beyond the education field and different motivations could allow for a more positive perspective of the profession. Teachers were more satisfied with support and encouragement from administration and working conditions at the building level but frustrated by issues with the larger education structure including salary, increasing expectations, and lack of respect from those outside the field.

Even through their frustrations, teachers were passionate about their profession and were willing to contribute to the conversation by not only completing the survey but articulating their views by answering optional open-ended questions as well. The data indicated that legislators, teacher preparation programs, and teacher organizations could benefit from exploring teacher recruiting behaviors and the factors that contribute to those behaviors. The study provided data to contribute to the research and illustrated that teacher recruiting behavior is a viable topic for further research.

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CHAPTER 1

INTRODUCTION

Study Rationale and Foundation

Educational administrators struggle with staffing problems that negatively impact student achievement (X. Liu, & Meyer, 2005; Ronfeldt, Loeb, & Wyckoff, 2013). For many years researchers have studied the problems associated with teacher retention and recruitment (Borman & Dowling, 2008; Cobbold, 2015; Goldring, Taie, & Riddles, 2014; Guarino, Santibanez, & Daley, 2006; Haggstrom, Darling-Hammond, & Grissmer, 1988; Harris & Adams, 2007; Ingersoll, 2002; Ingersoll, Merrill, & Stuckey, 2014; Ronfeldt et al., 2013; Synar & Maiden, 2012; Watlington, Shockley, Guglielmino, & Felsher, 2010). Scholars have observed trends regarding who is entering the teaching profession (Darling-Hammond, 2010; Guarino et al., 2006), why they chose teaching (Azman, 2013; Struyven, Jacobs, & Dochy, 2013), who stays (Ingersoll et al., 2014), and who leaves (Goldring et al., 2014). Large amounts of data are available regarding retention and recruitment, so scientists must take into consideration the complex nature of the issues in order to evaluate which components are effective (Cobbold, 2015). Researchers have studied retention and recruitment from a variety of perspectives (Borman & Dowling, 2008; Cobbold, 2015; Goldring et al., 2014; Guarino et al., 2006; Haggstrom et al., 1988; Harris & Adams, 2007; Ingersoll, 2002; Ingersoll et al., 2014; Ronfeldt et al., 2013; Synar & Maiden, 2012; Watlington et al., 2010) including how teachers are

motivated (Katz & Shahar, 2015), their job satisfaction levels (Klassen & Chiu, 2010; Song & Mustafa, 2015) and the effectiveness of teacher preparation programs (Ludlow, 2011).

Researchers have found these factors all impact teacher recruitment and retention, but little research is available regarding how current teachers influence the growth of the profession. In order to address this gap in the research, this study explored if any trends are present in the recruitment behaviors of current teachers.

Statement of the Problem

Teacher recruitment is a widely-studied topic (Azman, 2013; Darling-Hammond, 2010; Guarino et al., 2006; Struyven et al., 2013) but a gap in the research exists regarding the impact of current teachers on the process. In 2015, the teacher shortage within the state of Indiana prompted the Indiana Superintendent of Public Instruction to form the Blue Ribbon Commission on the Recruitment and Retention of Excellent Educators (Indiana Department of Education [IDOE], 2015b). Representatives from IDOE (2015a) released a report claiming that enrollments in teacher education programs had declined 31% between 2011 and 2013 with an overall drop of 50% from 2009 to 2013. Fewer people were going into the teaching profession, but little research was found regarding if current teachers are affecting the growth of the profession by encouraging or discouraging others to enter the field.

Teacher recruiting behavior is any behavior that influences the decision of others, either positively or negatively, to enter the field of education as a profession. Recruiting behavior can be done directly by activities ranging from speaking to individuals interested in entering the profession to supporting the structured organization of groups that promote teaching, such as Future Teachers of America. Recruiting behaviors can also be indirect through the use of materials such as posters or clothing items that promote teachers. Another indirect recruiting

behavior is the manner used by teachers when speaking about education with others. Teacher attitudes toward the profession in these settings can positively or negatively impact the public image of the profession which can indirectly affect recruitment. For the purposes of this research study, the specific recruiting behavior examined was the direct encouragement of others to enter the field of education as a profession.

Federal and state policymakers have attempted to deal with teacher recruitment by providing scholarship opportunities, developing loan forgiveness programs, and creating alternative certification programs (Spradlin & Prendergast, 2006). Multiple avenues are available for teachers to become licensed in the state of Indiana (IDOE, 2016a). Few studies are available regarding the effectiveness of recruiting efforts, what pathways current teachers utilized to become licensed, and how teachers are representing the profession to potential recruits. No research was found that considered the factors of pathways into education, job satisfaction, professional identity, and the marketing behavior of current teachers.

The Georgia Department of Education conducted a survey of public school teachers and asked them if they would recommend that high school graduates pursue education as profession (Owens, 2015). Owens (2015) found that 66.9% of the 53,000 teachers who responded to the survey were unlikely or very unlikely to recommend graduates go into the field of education. Owens) also asked the teachers to rank eight reasons for leaving the teacher profession that were based on the most often cited reasons that could be impacted by policy changes. The top two most often cited reasons were standardized tests and teacher evaluation methods (Owens, 2015). In addition, Owens found that teachers in elementary schools were less likely to recommend teaching than the middle school teachers and both were less likely than high school teachers to

encourage graduates to enter teaching. Owens stated that the lopsidedness of the results was an indication that additional research should be done.

Scientists have found that job satisfaction among teachers is a significant predictor of staying in the teaching field (Tickle, Chang, & Kim, 2011). A group of experts studying the field of nursing found “a strong significant correlation between job satisfaction and marketing behavior” (Kagan et al., 2015, p. 368). Nurses in general were not likely to promote their profession to those inside or outside the field (Kagan et al., 2015). Researchers have studied nursing from the standpoint of nurses marketing the profession because of the problems the profession has had with recruiting and retention, low job satisfaction levels, and poor public image (Kagan et al., 2015). Comparable problems are present in education; therefore, it was reasonable to explore teacher recruitment and retention from a similar perspective.

Purpose of the Study

The purpose of this study was to explore if a relationship exists between teachers’ demographics, the pathway of certification current teachers took into education, their job satisfaction levels, and their recruitment behaviors. The study also examined Indiana teacher intentions for staying in the profession. A survey was used to gather data on K-12 teachers in the state of Indiana.

Research Questions and Design

The study sought to answer one main research question: What are the recruiting behaviors of current Indiana teachers? In order to address this question, the following research subquestions were proposed:

Descriptive Subquestions

1. What are the recruiting behaviors of teachers with varying demographics?

2. What are the recruiting behaviors of teachers who plan to stay in or leave the profession?
3. What are the recruiting behaviors of teachers with varying job satisfaction levels?

Inferential Subquestions

1. Are there differences in the recruiting behaviors of teachers with varying teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels?
2. Can a linear combination of the teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels predict a significant portion of the variance in teacher recruiting behaviors?

One-way factorial ANOVA and multiple regression analysis were used to evaluate the data from the survey. The continuous dependent variable was the recruitment behavior of the teacher. The categorical independent variables were the demographic categories, certification pathways taken into education, and length of time they plan to stay in the field. The continuous dependent variable was overall job satisfaction levels.

Significance of the Study

Teachers have contact with students, parents, coworkers, and the community on a daily basis. Teachers' attitudes toward the profession have an impact on how the career is viewed by others. The research on teacher recruitment and retention could consider if educators are contributing to a poor public image of the career, but there is very little data available about how teachers are representing the profession. This study explored if teachers are helping to grow their own profession, provided data to stimulate a discussion on how teachers are representing their occupation, and investigated how it is impacting recruitment. Ultimately, the significance

of the study was to provide the data to further the discussion on teacher recruitment and encourage more research regarding teachers' impact on the growth of the profession.

Theoretical Framework

The theoretical framework used for this study was self-determination theory (Ryan & Deci, 2000b). Self-determination theory (SDT) was used as a means of understanding how intrinsic motivation influences behavior and sense of well-being (Ryan & Deci, 2000b). Scientists describe SDT as a way of studying motivation and personality as it relates to healthy social development and personal welfare (Ryan & Deci, 2000b). SDT experts categorize the influence intrinsic motivation as competence, autonomy, and relatedness (Pinder, 2008). SDT was used as a lens to study job satisfaction, pathways into education, and the efforts of teachers to recruit others into the profession.

Research Design

The survey was quantitative in design using survey methodology directed to all K-12 teachers in Indiana. All employed K-12 teachers were offered the opportunity to participate through a Qualtrics online survey platform. In order to obtain contact information on potential participants, e-mail addresses were requested through the IDOE for all current K-12 teachers in Indiana.

Assumptions

Two assumptions were made regarding this research project. First, it was assumed that teachers' representation of the profession can influence others regarding entering the field of education. Although little current data are available, previous research has shown that past experiences with teachers has been a contributing factor in the decision to enter the education field (Fielstra, 1955; Jantzen, 1981; P. Liu, 2010; Marso & Pigge, 1986; Richards, 1960;

Roberson, Keith, & Page, 1983; Su, 1993; Willcox & Beigel, 1953). This research assumed that teacher influence is still a factor.

Second, an assumption was made that current recruitment efforts were influencing, to some extent, the decisions of those to enter teaching. This research did not examine the effectiveness or extent of how recruiting efforts are impacting entrance into the profession. Current teachers' recruiting behaviors was the only recruiting factor analyzed in detail.

Limitations

In addition to assumptions, the study contained limitations that were out of my control that may have impacted the results of the study or the interpretation of the results. One limitation could have been a lack of response to the survey. Teachers might not have been inclined to share their opinions for a variety of reasons that could include time constraints, lack of interest, mistrust of the intended use of the data, or personal preferences. In order to mollify this potential limitation, an explanation was provided along with the survey that provided an estimation of time needed to complete the survey, the purpose of the survey, and how the information was going to be used in order to encourage response to the survey. In order to limit the length of the survey, which research has shown can help maximize response rates (Ary, Cheser Jacobs, & Sorensen, 2010), additional topics related to job satisfaction and pathways into the profession were not included.

An additional limitation could have been that teachers with strong views, both negatively and positively, might have been more inclined to complete the survey. Although this was beyond my control, the accuracy of the study could be limited if those with more impartial viewpoints were not as likely to respond.

Another limitation could have been participants who provided misinformation fearing repercussions from the survey results. In order to minimize the chance of this limitation adversely affecting the results, the explanation provided with the survey detailed how the study sought to keep the participants' information anonymous and how the data were going to be used in order to encourage the exchange of honest information.

Delimitations

Delimitations are the parameters determined by the researcher and the boundaries set for the study. The study was delimited to certified teachers working in the K-12 system in Indiana. The e-mail information of the participants was requested from the IDOE and the number of teachers in Indiana allowed for an adequate amount of responses to make up a representative sample size. Given a representative sample size, generalizations could then be made about the larger populace of K-12 educators in Indiana.

An additional delimitation included the survey parameters. The survey data did not account for all aspects of job satisfaction and pathways into the teaching profession. Variables often included in determining job satisfaction regarding specific school situations, opportunities within the school, efficacy, induction, professional developments, and the specifics of working conditions (Ladd, 2011) were included. Pathways into the teaching field consisted of traditional and alternative certifications but did not specify all available options for entrance into the field of education throughout the country.

The use of a one-way ANOVA to analyze the data for Inferential Research Question 2 was an additional delimitation. Different types of statistical tools could have been used to assess the data, including a 2 x 6 ANOVA but the one-way ANOVA was chosen.

Definition of Terms

A definition of terms is offered in order to maintain consistency of information and clarify the manner in which the terms were used for this study.

Alternative certification program is defined by the IDOE (2016b) as any post-baccalaureate program that fulfills the requirements to attain an initial teaching license

Job satisfaction is defined as a fulfillment of need or pleasure associated with work (Emery & Brewster, 1953).

Motivation is defined as being moved to do something (Ryan & Deci, 2000a).

Pathways into education are being used to describe by the IDOE (2016a) as programs available to acquire a teaching license in the state of Indiana.

Preservice is defined as “relating to the period before a person takes a job that requires training, especially in teaching” (“Preservice,” 2017, para. 1).

Professional identity is defined as how teachers’ view own role and how they represented themselves individually and as a group to those outside the field (Tsui, 2007).

Recruitment is defined as the enlistment of others into a profession (Emery & Brewster, 1953).

Retention is defined as remaining engaged in current position or field (Emery & Brewster, 1953).

Teacher recruiting behavior is defined for this study as the act of encouraging others to enter the field of education as a profession.

Summary

Although teacher shortage problem has prompted large amounts of research on recruitment and retention (Borman & Dowling, 2008; Cobbold, 2015; Goldring et al., 2014;

Guarino et al., 2006; Haggstrom et al., 1988; Harris & Adams, 2007; Ingersoll, 2002; Ingersoll et al., 2014; Ronfeldt et al., 2013; Synar & Maiden, 2012; Watlington et al., 2010), there is a gap in the research regarding current teacher recruiting behaviors. The study examined if demographic data, certification pathways, plans to stay in the field, and job satisfaction had any relationship to teachers to discourage or encourage others to enter the field.

The research study is presented in five chapters. The first chapter delivered the introduction, the statement of the problem, the purpose of the study, research questions, definitions for terms used within the study, assumptions, delimitations, limitations, and a summary. A review of literature will be presented in Chapter 2 regarding the impact of the teacher shortage, motivation of teachers, certification pathways into the profession, job satisfaction factors including professional identity, and current recruitment efforts. Chapter 3 will include the methodology and procedures planned for this study. Chapter 4 presents the results of the survey and a detailed analysis of the data collected. The final chapter offers findings, conclusions, implications, and suggestions for future research based on the data collected.

CHAPTER 2

LITERATURE REVIEW

School administrators in the United States face a struggle to find and keep qualified educational professionals. The teacher shortage places a strain on individual school corporations and the entire educational system. Researchers have shown that teacher turnover and movement of teachers has a negative impact on many components including student achievement (X. Liu & Meyer, 2005; Ronfeldt et al., 2013), teacher performance, organizational efficiency (Guin, 2004), and the image of the teaching profession (Ladd, 2011; Parding, Abrahamsson, & Berg-Jansson, 2012). The problem of teacher recruitment and retention is multifaceted (Cobbold, 2015), and researchers have examined it from a variety of viewpoints including who is entering the profession (Ingersoll et al., 2014), how teachers are trained (DeMonte, 2015; A. Levine, 2006), how teachers are motivated (Azman, 2013; Katz & Shahar, 2015), and how job satisfaction levels are impacted (Klassen & Chiu, 2010; Song & Mustafa, 2015) by working conditions (Ladd, 2011; Tickle et al., 2011), salaries (Harris & Adams, 2007; Ingersoll, 2003), teacher input on rules and decision making, and administrative support of new and seasoned teachers (Ingersoll, 2002). There is limited research, however, on the recruiting behaviors of current teachers and if that is influencing the teacher shortage in any way. The research that is available shows that nearly 67% of teachers would not recommend entering the field to high school graduates (Owens, 2015).

This study examined the motivations of teachers to enter education, the pathways available, and the current recruitment behaviors of teachers. In order to offer a context for the study, this review of literature is presented in three sections. First, an introduction is provided to the impact of teacher turnover on students, teachers, organizational effectiveness, and the profession as a whole. The second segment explores the recruitment of teaching professionals in terms of motivation and pathways into education. The final segment discusses current teaching professionals and recruitment by examining demographics, job satisfaction, and recruitment behaviors.

Impact of Teacher Turnover

The struggle to keep teaching positions filled impacts all aspects of the educational system. The foremost researched issue was that teacher turnover was detrimental to student achievement (Dolton & Newson, 2003; Guin, 2004; Ronfeldt et al., 2013; Watlington et al., 2010). In addition to student learning, teachers who stayed were negatively impacted when schools had large turnover rates (Guin, 2004, Ronfeldt et al., 2013). Staffing problems also created difficulties for schools from an organizational perspective with cohesiveness, unified instruction, morale, and performance (Cobbold, 2015; Guin, 2004; Milanowski & Odden, 2007; Ronfeldt et al., 2013). Finally, the struggles related to the movement of teachers within the field or out of the field have impacted the teaching profession in a negative manner (Cobbold, 2015; Ingersoll, 2003).

Student Impact

A main focus of the educational system is to improve student achievement. Although some studies have found situations in which student achievement improved when the teacher changed (Hanushek & Rivkin, 2007), most researchers have determined a lack of stability in the

classroom generally has detrimental effects on student learning (Dolton & Newson, 2003; Guin, 2004; Ronfeldt et al., 2013; Watlington et al., 2010). The severity of the impact of teacher turnover was also found to be influenced by student population demographics and school environments (Dolton & Newson, 2003; Ronfeldt et al., 2013). This section explored the effects of teacher turnover on student achievement.

Viewed through the framework of the theory of supply and demand, some attrition can be healthy because it removes less productive or effective individuals from the profession (Ronfeldt et al., 2013). In one study based on the math scores of middle school students in Texas Hanushek and Rivkin (2007) concluded the movement of teachers did not have a significantly detrimental effect on student achievement. The argument was the teachers who were leaving provided lower-quality instruction than those who stayed or moved within the district (Hanushek & Rivkin, 2007). Much of their research, however, found a negative correlation between teacher turnover and student achievement (Hanushek & Rivkin, 2007; Rivkin, Hanushek, & Kain, 2005). Most researchers agreed with this conclusion (Dolton & Newson, 2003; Guin, 2004; Hanushek & Rivkin, 2004; Rivkin et al., 2005; Watlington et al., 2010) and with Ronfeldt et al. (2013), who found that in the majority of cases, even when teacher quality was accounted for, “teacher turnover had a significant and negative impact on student performance in math and ELA” (p. 30)

One factor shown to have impacted student achievement was teaching experience (Hanushek & Rivkin, 2007; Rockoff, 2004). It was estimated “that after just five years, between 40 and 50% of all beginning teachers have left teaching altogether” (Ingersoll, 2003, p. 13). Researchers linked teaching experience with increased test scores, especially in reading (Rockoff, 2004). The flow of teachers through the profession with less than five years of experience has not had a positive impact on student achievement (Hanushek & Rivkin, 2007;

Ingersoll, 2002). Schools with higher turnover rates were found to have a smaller pool of qualified applicants and often hired teachers with less experience to fill vacancies (Ronfeldt et al., 2013).

The impact of teacher turnover was even more significant in low-performing, high minority population schools (Dolton & Newson, 2003; Hanushek & Rivkin, 2007; Ronfeldt et al., 2013). Grissom (2011) used a cost versus benefit framework to describe the labor market theory of supply and demand. Grissom found that the cost associated with teaching often outweighed the benefit related to teaching. The cost associated with working with disadvantage students described as minorities, those with high-poverty levels, and low-achievement levels, was much higher due to the demands placed on the teacher (Grissom, 2011). Disadvantaged students required teachers to spend time developing and using intensive teaching strategies (Grissom, 2011). Teachers were required to provide more independent attention for students to improve achievement (Grissom, 2011). Longer preparation times were needed to work with disadvantage students and they suffered from less parental support (Grissom, 2011). The cost factors added to teacher turnover and negatively impacted student achievement (Dolton & Newson, 2003; Grissom, 2011; Ronfeldt et al., 2013).

Furthermore, Ronfeldt et al. (2013) discovered, in low-performing schools with high turnover rates, the students of teachers who stayed experienced lower achievement as well. This conclusion was supported by the finding of Khawary and Ali (2015) who examined how student achievement is directly related to the learning process. The researchers looked specifically at how the learning process is influenced by teacher turnover (Khawary & Ali, 2015). They ascertained that students in schools with high turnover faced many additional struggles related to learning (Khawary & Ali, 2015). Students continuously exposed to beginner teachers spent a lot

of time learning the new teacher in order to adapt to their approach (Khawary & Ali, 2015). Instruction was interrupted due to changes in staff and the use of substitutes (Khawary & Ali, 2015). The researchers also observed these issues caused students to become emotionally detached from the teachers and learning process which was detrimental to the effectiveness of the learning process, student achievement and the educational system (Khawary & Ali, 2015).

Teacher Impact

Additional researchers observed that student achievement suffered in schools with high turnover rates due to a lack of consistency and unification of instruction (Guin, 2004). Not only the students of teachers who left were impacted by the lack of stability in the staff, turnover caused additional struggles for the remaining staff (Guin, 2004). The teachers who remained faced additional difficulties because of continuous change in coworkers (Guin, 2004).

Teaching is a highly collaborative field in which strong staff relationships are necessary. Researchers showed that relationships among staff were strained in schools with high turnover rates (Guin, 2004). Teachers struggled to collaborate to plan and implement curriculum when they had new, often inexperienced, co-workers each year or two (Guin, 2004). Continually using time and resources to integrate coworkers detracted from the cohesiveness of the group (Guin, 2004).

Additional stress was placed on the remaining staff of schools with high turnover to overcome the lack of stability (Ronfeldt et al., 2013). The instability in staff also fostered a lack of trust among teachers which inhibited teambuilding and co-worker collaboration (Guin, 2004; Ronfeldt et al., 2013). All of the disruptive factors related to teacher turnover added to negative work environments, especially in schools with disadvantage students, which further detracted

from student achievement and perpetuated the cycle of teacher turnover (Guin, 2004; Ronfeldt et al., 2013).

Researchers have also found a general dissatisfaction with the profession among teachers (Owens, 2015). A Georgia Department of Education survey revealed that only 14.9% of the more than 53,000 teachers who responded were likely or very likely to recommend that graduating seniors enter pursue teaching as a career (Owens, 2015). Because 47% of teachers in Georgia left the profession within the first five years, the researchers asked teachers to rank the top reasons that teachers were leaving the profession (Owens, 2015). The teachers were given eight options to rank that were specifically impacted by state policy (Owens, 2015). The top two reasons given were the number and focus on state-mandated tests and the teacher evaluation process (Owens, 2015).

In addition to the ranking options, teachers were given the opportunity to list other reasons they felt teachers were leaving the profession (Owens, 2015). Over 95% of those surveyed chose to provide additional reasons in which “respondents painted a dismal picture of disillusionment and powerlessness within education in the state of Georgia” (Owens, 2015, p. 6). Of the most noted reasons, 19.4% were related to time, 18.6% were related to student accountability and discipline issues, 17.6% were related to lack of parent support, 12.4% reported feeling disrespected, and 9.7% mentioned feeling stress due to a lack of control (Owens, 2015).

Teacher turnover has been shown to add additional stress on the entire workforce of educators (Guin, 2004; Ronfeldt et al., 2013). The remaining teachers deal with a lack of trust among co-workers which impacts collaboration and morale (Guin, 2004; Ronfeldt et al., 2013).

The negative factors related to turnover have placed the remaining teachers in an increasingly demanding situation which has impacted their mindsets (Owens, 2015).

Organizational Impact

In addition to the direct impact on students and teachers, teacher turnover can be harmful to the entire organization (Ronfeldt et al., 2013). Researchers have found a “negative relationship between teacher turnover and school functioning” (Guin, 2004, p. 1). Increased mistrust was found among the staff, there was less continuity in the curriculum (Guin, 2004), and the financial impacts of teacher turnover were significant (Ronfeldt et al., 2013).

Guin (2004) determined that organizations suffered in several ways due to teacher turnover. The steady changes in staff eroded the stability of instruction in a school because initiatives had to be revived yearly in order to update the new teachers (Guin, 2004). Turnover caused a lack of consistency of instruction and did not allow for a comprehensive focus in curriculum development (Guin, 2004). Schools focused resources on hiring replacements each year and seasoned teachers were overlooked and dismayed with a lack of progress (Guin, 2004). Professional development at schools with high turnover rates lacked structure focused on school level goals and was often repeated for incoming staff (Guin, 2004).

Teacher turnover not only impacts the functioning of the staff but has a significant impact on school budgets. Research to determine the cost of teacher turnover varied depending on the strategies used to analyze the data (Cobbold, 2015). Studies have shown that cost fluctuated greatly depending on the type, size, budget, location and practices of the school corporation (Levy, Joy, Ellis, Jablonski, & Karelitz, 2012). Expenses differed depending on the scope of the research as well. The data fluctuated significantly if the budget was considered at the state, corporation or building level (Levy et al., 2012).

Although it is difficult to measure, researchers “estimates that states spend between \$1 billion and \$2.2 billion a year on teacher turnover” (Haynes, 2014, p. 3). Researchers found that while some financial spending was evident, other costs were embedded into the budget and harder to estimate (Watlington et al., 2010). The cost of turnover in organizations was traditionally estimated by adding the “costs of separation, cost of replacement staffing, net replacement pay, cost of training, and value of lost productivity” (Milanowski & Odden, 2007, p. 5). The difficult aspect to estimate was the value of lost productivity, which was the difference in student achievement between the replaced teacher and replacement teacher (Milanowski & Odden, 2007). Obtaining measurable data and placing a value on the impact of an individual teacher on student learning and wellbeing was extremely problematic (Milanowski & Odden, 2007).

Synar and Maiden (2012) purposed the teacher turnover cost model to estimate financial impact of teacher turnover using the separation costs, hiring costs, training costs, and performance productivity costs as criteria. Separation costs referred to the school’s exit interview and follow-up process (Watlington et al., 2010). Hiring costs included all advertising, recruiting, and interviewing investment (Watlington et al., 2010). Training costs consisted of orientation, pre-service training, and mentoring programs (Watlington et al., 2010). Performance productivity costs involved the theory that it would take a new teacher five month of experience in the position to become fully effective (Watlington et al., 2010).

Cost estimations did not usually take into consideration the time that building-level administrators and staff spent dealing with changing staff because these data were extremely difficult to obtain because they are rarely tracked (Levy et al., 2012). Schools were able to allocate their human resources to deal with teacher transitions and those costs were not reflected

in the district budget (Levy et al., 2012). Researchers found that districts that spend more on new teacher training and support, which increases their cost associated with turnover, had lower rates of turnover (Watlington et al., 2010).

Although researchers found it difficult to determine actual costs, they determined teacher turnover has had a large impact on school budgets at all levels (Levy et al., 2012). Many factors associated with turnover were evident and others were hidden, not tracked, or extremely difficult to value (Levy et al., 2012; Watlington et al., 2010). Financial resources associated with hiring and training new teachers, time cost related to teachers becoming familiar and proficient in the position, and human capital used to deal with the changes all contribute to the expenses of teacher turnover (Watlington et al., 2010).

The financial features of teacher turnover placed additional strains on school budgets which negatively impacted school function (Watlington et al., 2010). The instability of personnel was determined to be detrimental to the effectiveness of schools in terms of teamwork, development, and continuity (Guin, 2004; Ronfeldt et al., 2013). Turnover added to mistrust among teachers, a lack of collaboration, and frustration due to instability (Ronfeldt et al., 2013). These factors combined to create a difficult cycle for schools to break and contribute to the effectiveness of schools (Ronfeldt et al., 2013). The implications of teacher turnover have been found to not only directly influence student achievement and school performance but greatly affect the teaching profession as a whole.

Professional Impact

The National Center for Education Statistics (NCES, 2016b) estimated that approximately 3.1 million public school and 0.4 million private school teachers were employed in the United States at the beginning of the 2016 school year. The U.S. population was

approximately 324 million in early August 2016 (U.S. Census Bureau, 2016); therefore, 1% of the population was employed as teachers. With such a large population, small increases in attrition rates have had large consequences for the profession and the needs for recruitment (Cobbold, 2015).

Many researchers found that teachers leave the profession at an unusually high rate compared to professionals with similar training and qualification requirements (Guarino et al., 2006; X. Liu & Meyer, 2005). Harris and Adams (2007), however, suggested that the turnover rate for teachers was similar to that of nurses, accountants, and social workers. These jobs all require a substantial amount of education and are all service professions (Harris & Adams, 2007).

Researchers have shown that attrition is not the only factor the teaching profession has been facing but also fewer people have been entering the field. National enrollment in teacher preparation programs decreased 31% from 2008 to 2013 (U.S. Department of Education [USDOE], 2015). In the state of Indiana, there was a 50% decline in enrollments into teacher education programs from 2009 to 2013 (IDOE, 2015a).

Attrition levels in education were found to be high (Guarino et al., 2006; X. Liu & Meyer, 2005), enrollment numbers were shown to be decreasing (USDOE, 2015), and one researcher showed that the commitment level of those entering the profession to be limited even before they begin teaching (Su, 1993). When examining data from students enrolled in teacher education programs, Su (1993) found that only 51% of the students answered yes when asked if they were committed to teaching as a lifelong career, 36% answered maybe, and 14% answered no.

These factors have painted a grim picture for the teaching profession. Some researchers suggested that the turnover issue needs to be addressed by changing policy and perspectives on the professional level. Cobbold (2015) researched the policy regarding the teacher shortage in Ghana and concluded that “the most effective approaches appear to be those that have been implemented as part of a global strategy that looks not simply at the immediate problem but at ways of making teaching an attractive profession in the long-term” (p. 79).

Professional Motivation in the Education Profession

The impacts of teacher turnover are far reaching and in an effort to understand teacher turnover it is necessary to consider motivation. The study of motivation is very complex and there are many different approaches (Franken, 2002). This study analyzed professional motivation in education in two parts. The first section explored motivational theory with an emphasis on the self-determination theory developed by Deci and Ryan (1985). This perspective provided the framework for the second section examining the motivational factors associated with entering teaching, staying in or leaving the field, and recruitment behaviors.

Motivation Theory

Motivation has been defined as being moved to do something (Ryan & Deci, 2000a). Psychologists have been theorizing on motivation since the late 1800s (Deci & Ryan, 1985). Motivational theories have attempted to understand the drives behind behavior and also the direction on the stimulus, internally or externally (Deci & Ryan, 1985). Theories have ranged from mechanistic, being driven by physiological needs and environmental stimulus, to organismic, being willful and initiating behavior (Deci & Ryan, 1985). This study will focus on self-determination theory and theories that contributed to it as a framework for understanding motivation.

In the early 1900s Sigmund Freud provided the first theory on motivation based on internal drive (Deci & Ryan, 1985). Freud believed that instinct, which he called libido, provided the stimulation for behavior (Franken, 2002). Freud's theories on motivation were developed from the psychoanalytic psychology perspective which postulated that all behavior could be tracked to two physiological drives: sex and aggression (Deci & Ryan, 1985). Although Freud contended that instinct was the catalyst for the behavior, he believed that the direction of the behavior was influenced by learning and cognition (Deci & Ryan, 1985).

Hull (1943), an empirical psychologist, expanded on Freud's drive theory but claimed that there were four drivers of behavior: hunger, thirst, sex, and pain avoidance. Empirical psychology approached motivation by observing the learning behaviors in animals (Deci & Ryan, 1985). During the same time period, Maslow (1943) presented a framework for the study of motivation through the theory of hierarchy of needs. Prior to Hull and Maslow, most theorists believed that behavior was driven by biological structures or instincts that reacted to environmental stimulus (Franken, 2002). Maslow's theory based motivation on basic physiological needs but provided an additional structure to account for human desire. Hull had empirical data to support his theory, and Maslow was proposing a theory of how needs were operating in related to each other.

Maslow (1943) theorized that the desires that motivated behaviors were ranked and the most basic need had to be satisfied to some extent for the next level of need to become the focus. Maslow's theory was constructed around the function or goal of the behavior, which was to satisfy the need. Maslow stated that most behavior was not caused by a single factor but a combination of multiple motivating factors. Additionally, Maslow concluded that other factors of motivation exist beyond basic needs and that degrees of motivation do vary.

Maslow's (1943) hierarchy lists needs which include the more basic needs of human physiology and safety as well as the more intellectual and emotional needs of human interaction and love, a healthy self-esteem, and self-actualization. Physiological needs referred to the maintenance of a state of equilibrium in the body, including nutrients, water, and procreation (Maslow, 1943). Safety signified not only needs for physical security, but also emotional stability and certainty of the situation (Maslow, 1943). Love was defined as a need for receiving and giving feelings of affection and belongingness (Maslow, 1943). Esteem needs represented a stable high evaluation of self, respect for others, and having respect and recognition from others (Maslow, 1943). Self-actualization denoted needs for self-fulfillment and realization of one's potential (Maslow, 1943). Self-actualization, according to Maslow, was the level of the most creativity.

The drive theorist continued to have a problem explaining some aspects of motivation (Deci & Ryan, 1985). Psychoanalytic drive theory could not support normal developmental patterns or learning that occurred during periods without distress (Deci & Ryan, 1985). Empirical drive theory could not account for investigative and calculating behaviors in animals (Deci & Ryan, 1985). These non-drive based behaviors did not fit into the motivational theories available at the time (Deci & Ryan, 1985).

In 1959, White proposed a solution to both approaches to motivation and open the door to alternative tactics study to motivational theory. White offered a new model of studying motivation that included needs theory but also allowed for the explanation of components that were not drive based. White used the term competence to refer to an organism learning to be effective within the environment or situation. Competence led to a feeling of efficacy which was the sustaining reinforcement behind the behavior (White, 1959). This non-drive based

motivation has also been referred to as an intrinsic motivation (Deci & Ryan, 1985). This allowed for theories of motivation to incorporate drive based needs with intrinsic and external motivational factors (Deci & Ryan, 1985; White, 1959).

Later Maslow (1970) further developed his hierarchy theory by adding cognitive needs to know, explore, and understand along with aesthetic needs for symmetry, order, and beauty. Cognitive and aesthetic needs were placed on the hierarchy between emotional needs and self-actualization (Maslow, 1970). Maslow further concluded that motivation was divided into two types: avoidance and approach. Avoidance motivation was associated with deficiency or lacking of a basic need such as sustenance or safety (Maslow, 1970). All other categories of need fell under the approach motivation which was related to growth (Maslow, 1970).

From these ideas, Deci and Ryan (1985) built the SDT. SDT hypothesized that behavior is based on psychological needs for “self-determination, competence, and interpersonal relatedness” (Deci & Ryan, 1985, p. 9). Earlier mechanistic drive theories viewed humans as slaves to their physiological needs being stimulated by environment factors (Deci & Ryan, 1985). SDT was based in the organismic theories that humans are active participants who willfully determine and initiate their behavior (Deci & Ryan, 1985). SDT claimed that intrinsic needs provide the energy behind action and physiological drives (Deci & Ryan, 1985). Further, SDT viewed the environmental stimuli as providing the opportunity to satisfy a need, not as the cause of the behavior (Deci & Ryan, 1985). In the organismic theory, experience of a subject played a large part in determining behavior (Deci & Ryan, 1985). Deci & Ryan described SDT in that it “analyzes the effects of events relevant to the initiation and regulation of behavior in terms of their meaning for a person’s self-determination and competence” (p. 9). SDT was further explained as “the needs for competence and self-determination motivate the ongoing

process of elaborating the internal, unified structure of self through the continual integration of internal and external stimuli” (Deci & Ryan, 1985, p. 9).

SDT was influenced by cognitive theories as well because self-determination was the concept of choice and will (Deci & Ryan, 1985). Deci and Ryan (1985) differentiated their theory by stating that SDT was “motivational rather than cognitive because it addresses the energization and the direction of behavior and it uses motivational constructs to organize cognitive, affective, and behavioral variables” (p. 7). SDT also was concerned with the energizing force behind behavior as well as the directionality of behavior, intrinsically and extrinsically (Deci & Ryan, 1985).

Deci and Ryan (1985) also referred to Heider’s perceived locus of causality as part of the structure of SDT. Perceived locus of causality was described as the concept of the perception of control of an action by the person initiating the action (Deci & Ryan, 1985). Control could be perceived by the perpetrator as internally caused, therefore intrinsically motivated, or externally caused, therefore extrinsically motivated (Deci & Ryan, 1985). The perception of causation directly impacted the level of self-determination possible in a situation (Deci & Ryan, 1985).

SDT postulated that intrinsic motivation was founded on the need of effective mastery of skill and the concept of self-determination (Deci & Ryan, 1985). Self-determination is the idea of having volition, autonomy, and choice in a matter (Deci & Ryan, 1985). Deci and Ryan (1995) confined the definition of self-determination to actions “with an internal perceived locus of causality” (p. 35) and contend that intentional behaviors that are pressured by external forces are not autonomous and therefore not self-determined. SDT also interpreted self-esteem as being closely tied with the degree of autonomy available in the situation (Deci & Ryan, 1995). More

autonomy supported true self-esteem and controlling or pressured situation only built contingent self-esteem (Deci & Ryan, 1995). Researchers further described the concept of self by stating,

In human personality, the construct of autonomy concerns the processes through which action and experience are initiated and governed by “the self.” The greater one's autonomy, the more one acts in accord with self-endorsed values, needs, and intentions rather than in response to controlling forces external to the self, whether these forces are within the individual (e.g., drives or ego involvements) or from outside (e.g., social pressures). (Ryan, Kuhl, & Deci, 1997, p. 702)

Researchers described that extrinsic motivation can be integrated into the concept self (Deci & Ryan, 1995). Extrinsic motivation ranged in degree of internalization and was categorized by Deci and Ryan (1995) as “external regulation, introjected regulation, identified regulation, and integrated regulation” (pp. 38-39). External regulated behaviors were described as intentional but contingent on an external agent done to avoid punishment or obtaining a reward (Deci & Ryan, 1995). Introjected regulated behaviors were considered actions influenced by duty in order to support self-esteem such as things done out of sense of guilt or feeling of obligation (Deci & Ryan, 1995). Identified regulated behavior was defined as having some meaning associated with the person's value system so although it is still externally driven, the person identifies closely with the activity (Deci & Ryan, 1995). Finally integrated regulated behavior was when the behavior could be integrated into the person's feeling of self so that sense self-determination was possible (Deci & Ryan, 1995).

Ryan and Deci (2000a) went on to further explain the importance of internalization of motivation

As a continuum, the concept of internalization describes how one's motivation for behavior can range from a motivation or unwillingness, to passive compliance, to active personal commitment. With increasing internalization (and its associated sense of personal commitment) come greater persistence, more positive self-perceptions, and better quality of engagement. (pp. 60-61)

Researchers also maintained that externally motivated behaviors were sometimes influenced by the factor of relatedness (Ryan & Deci, 2000a). Externally motivated activities were more likely to be initiated when the behavior fostered connectivity and a feeling of belonging to a person, group, or society that was viewed as valued (Ryan & Deci, 2000a). Therefore, intrinsic and extrinsic motivation was positively influenced when the feeling of relatedness was present (Ryan & Deci, 2000b).

Deci and Koestner (1999) took the concept further and found that reward and contingency based programs undermine internal motivation and had negative impacts on long term goals. Researchers revealed that strategies that did not support intrinsic motivation and self-determination led to disinterest, alienation, and demotivation (Deci & Koestner, 1999). Although there were programs in which rewards were effectively used, researchers concluded that purely extrinsically based and didn't support the psychological needs were detrimental (Deci & Koestner, 1999).

The concepts related to SDT have been applied to business models, education, health care, and psychology (Deci & Ryan, 2008). Adaptations of SDT were made popular by the work of Pink (2009) who used the terms autonomy, mastery, and purpose to represent self-determination, competence, and relatedness. Researchers have used SDT as a basis for looking at motivation in terms of personal, work, and organizational dynamics (Deci & Ryan, 2008)

therefore it is reasonable to use it as a framework for observing why teachers entered the field of education and if they are compelled to encourage or discourage others to following in their footsteps.

Motivation for Teaching

The question of why people choose to become teachers is not new or unique to one country. This section explored the history of research on what motivated teachers to enter the field of education. As early as 1950s, teacher motivation was being studied as an attempt to better understand the teacher shortage (Fielstra, 1955; Ostlie, 1956; Willcox & Beigel, 1953) and it is still a prominent research topic today (S. Liu & Onwuegbuzie, 2014; Tentama & Pranungsari, 2016).

Willcox and Beigel (1953) surveyed 152 students enrolled in teacher college in New York City and determined that their emotional needs were the primary motivating factors. Chosen by 30% of the participants, the largest motivational factor was working with children (Willcox & Beigel, 1953). An additional 22% of participants cited the example of a teacher as an influential factor (Willcox & Beigel, 1953). Interestingly, some participants described positive examples of teaching motivated their decision but 6% of the women and 3% of the men reported negative experiences with teachers prompted them to become educators (Willcox & Beigel, 1953).

Additional research performed in the 1950s examined when the choice to become a teacher was made and what motivated the choice. A survey conducted by Fielstra (1955) of 230 students enrolled in principles of education class at UCLA, 50% of the participants indicated that they made the decision to become a teacher prior to graduating high school. The most influential

factor in their decision to become teachers was the inspiration and encouragement of one or more of their teachers (Fielstra, 1955).

Ostlie (1956) further supported previous findings by asking 1,374 college students from eight southern California schools of education about their motivations for wanting to teach. Ostlie (1956) concluded that the most influential group of people on the decision to becoming a teacher was teachers. Students stated that it was not just the influence of their own teachers but the impact teachers had on others (Ostlie, 1956). Teachers had more influence than all other groups of people combined (Ostlie, 1956).

In 1960, Richards published findings of a similar study with 530 beginning education students at Ohio State University. Richards examined the attitudes of the students in regards to teaching beliefs and the factors that influenced the decision to pursue a career in education. Richards's findings were in agreement with the previous research on influential factors. The majority of participants stated. "The greatest single influence on their choice of teaching came from teachers" (Richards, 1960, p. 380).

During the same time period, Haubrich (1960) conducted a study of students in an education program at the University of Utah. Haubrich felt that motivations were complicated and would change over time. Haubrich concluded that one-third of the students considered teaching as a life goal, one-third chose to enter teaching for security as a fallback career, and one-third entered due to liking to work with children. In addition to those motivational factors, Haubrich found that only 43% sought to make a long-term career as a teacher. Of the students, 42% planned to stay in teaching for 10 years and 31% for fewer than five years (Haubrich, 1960). Of the women surveyed, 52% stated that marriage would be the reason they left the profession (Haubrich, 1960).

A study conducted by Hood (1965) asked 226 University of Minnesota college students why they entered the teaching field. The top three reasons provided by the students for choosing teaching was because they felt it was a profession that was important to the society, allowed them to work with youth, and it provided them with skills that could lead to other careers (Hood, 1965). L. Levine (1969) added to this by concluding that decision to choose teaching as a major was “by default rather and by design” (L. Levine, 1969, p. 249) for many who were unsure of the specific career they wanted to pursue. L. Levine also indicated that many of those who specified a desire to work with children as an influential factor for selecting the profession also admitted to little or no experience working with children prior to choosing the career. The Minnesota study students also listed the top three disadvantages to teaching as a restriction of individual freedom, lower salary than other professions with similar preparation requirements, and that although there was an overall teacher shortage, some areas were saturated (Hood, 1965).

By the mid-1970s, there was no longer a teacher shortage but an oversupply of teachers in most areas (Fox, 1976). Researchers were examining the motivations of those entering the profession in the mid-1970s compared to those entering in the early 1960s when there was a high demand for teachers (Fox, 1976). Fox (1976) conclude that teachers in the 1975 survey were much more driven to enter the field because of a desire to work with children, their prior experiences working with youth, and their unhappiness with bad teachers than the teachers surveyed in 1960 (Fox, 1976).

Another researcher in the late 1970s surveyed a class of education students at the State University of New York, College at Old Westbury, whose focus was to provide opportunities for non-traditional students to pursue their education; the mean age of the 73 students surveyed was in the upper 20s (Wood, 1978). When students chose their primary reasons for entering the

teaching program Wood (1978) discovered that 33% selected personal experiences with children as their primary reason for choosing teaching, 27% responded that they liked children and wanted to work with them, and 16% listed an altruistic reason of influencing a child's education.

The climate of education changed in 1983 when the authors of *A Nation at Risk* (National Commission on Excellence in Education, 1983) warned of the declining state of education in the United States and a pending teacher shortage. Researchers analyzed the baseline data from “High School and Beyond,” a longitudinal study of high school seniors in 1980 (Roberson et al., 1983). Roberson et al. (1983) compared 688 seniors planning to go into teaching to 10,411 seniors planning on pursuing other careers requiring a college education. This study selected 18 variables based on past research and included “background characteristics, individual attributes and performance, and perceived influences and motivations on the aspiration to teach” (Roberson et al., 1983, p. 14). Although the most significant factor influencing the decision to become a teacher was gender, the analysis determined that the influence of teachers on the decision to go into teaching was still significant (Roberson et al., 1983). A longitudinal study conducted by Jantzen (1981) from 1945 through 1979 showed an upward trend in the selection of “the enthusiasm of some former teacher for his work has influenced my choice” (Jantzen, 1981, p. 45).

In 1986 researchers found a stronger percentage of students influenced by teachers when they conducted a study of 266 introductory level education students from Bowling Green University (Marso & Pigge, 1986). Using a variety of surveys, they looked at student characteristics, concerns regarding entering the teaching profession, and reasons for choosing to pursue a career in education (Marso & Pigge, 1986). Marso and Pigge (1986) found that 63% of

the participants stated that former teachers were an influence in choosing to enter the teaching profession.

Further support of teachers influence on those entering the profession was presented in a profile of teacher education students based on the Study of the Education of Educators (SEE), a national research project conducted by the Center for Education Renewal at University of Washington (Su, 1993). Su (1993) used the data from the SEE to examine the demographics, reasons for going into education, and attitudes and commitment to teaching as a long term career. Su observed students' positive experiences with teachers, particularly elementary school teachers, as a dominant element in their decision to enter education.

Researchers have also considered the long-term impact of initial teacher motivation. Australian researchers Wilhelm, Dewhurst-Savellis, and Parker (2000) completed a longitudinal study of 156 teachers over a 15-year span comparing the motivations of those who stayed in teaching to those who left. They found that those still in profession after 15 years were more likely to have rated previous exposure to an influential teachers as a reason for going into teaching and that they had a more positive view of teaching (Wilhelm et al., 2000). Interestingly the researchers further concluded based on the initial surveys regarding attitudes towards teaching "that the decisions regarding teaching and not teaching were often made prior to entering into the profession" (Wilhelm et al., 2000, p. 301).

Contrary to previous studies, researchers from Australia found the influence of prior teachers and family on the influence of the decision to enter education was not significant (Richardson & Watts, 2006). Richardson and Watts developed the Factors Influencing Teaching Choice (FIT-Choice) survey to study the motivational factors behind choosing teaching as a career. The FIT-Choice looked at motivation in terms of intrinsic, altruistic, personal utilitarian

and social utilitarian influences (Richardson & Watts, 2006). Richardson and Watt (2006) determined having positive prior experiences with teaching and learning was an important motivation for choosing teaching but that the encouragement of significant people, including family and prior teachers, was not. Their research of first year education students indicated “they have chosen teaching as a career despite their perceptions about the relative demands and returns in the profession, and despite their experiences of others attempting to dissuade them from teaching as a career” (Richardson & Watts, 2006, pp. 51-52).

Sinclair’s (2008) work on teacher motivations also found a decline from previous research on the influence of others on the decision to enter the profession. Sinclair surveyed 211 education students in Australia looking at intrinsic, extrinsic, and altruistic motivational factors related to their commitment to teaching. The findings showed that although all three types of motivation were present, “student teachers were less likely to be motivated to enter teaching because of the influence of others” (Sinclair, 2008, p. 95) and more likely to be motivated by intrinsic factors of wanting to work with children, intellectual nature of teaching, and personal assessment of their ability or desire to teach. Sinclair also found that as their careers progressed, extrinsic motivations become more important.

P. Liu (2010) conducted a comparative study of entry-level students enrolled in teacher education programs in China and the United States. P. Liu asked the participants to respond in writing to the questions “why they decided to become a teacher, what they wanted to accomplish as a teacher, and how they viewed the role of a teacher” (p. 55). P. Liu found very different motivations between the two groups with no similarities in the top five answers. Results showed 40% of the Chinese participants answered that their reason for becoming a teacher was “teaching is a respected, noble and stable profession” (P. Liu, 2010, p. 62). The next closest reason, with

23%, was their “score in the National College Entrance Examinations” (P. Liu, 2010, p. 62) which meant it was not necessarily a personal choice but an option based on their test results. The majority of the American participants (68%) stated the reason for choosing teaching as a career was to “make a difference” (P. Liu, 2010, p. 63). Of the American students 55% stated that they “always wanted to become a teacher and teaching is their passion” (P. Liu, 2010, p. 63). In addition, 52% of the American participants stated that they chose teaching due to the “influence of a teacher” (P. Liu, 2010, p. 64).

Richardson and Watt’s (2006) FIT-Choice Scale was also used by German and Turkish researchers to determine the motivations of students studying to become teachers (König & Rothand, 2012; Yüce, Sahin, Kocer, & Kana, 2013). These studies looked at motivation in terms of the intrinsic, extrinsic, and altruistic factors (König & Rothand, 2012; Yüce et al., 2013). König and Rothand (2012) found that work with children/adolescents was the dominant motivation. They further concluded that motivations of the preservice teachers were primarily intrinsic but also some extrinsic factors were important, especially as they progressed through the program (König & Rothand, 2012). The researchers further ascertained that prior teaching and learning experiences were not significant factors in choosing education as a career (König & Rothand, 2012). Another noteworthy conclusion of König and Rothand was the impression that good teachers had to be intrinsically motivated while other professions consider salary, job security, and scheduling as an acceptable motivation for choosing a career.

A Turkish research study using the FIT-Choice Scale supported Sinclair’s outcomes that intrinsic, altruistic, and extrinsic factors are all present in preservice teachers but found Turkish preservice teachers extrinsic and altruistic motivation factors to be dominate over intrinsic (Yüce et al., 2013). Yüce et al. (2013) contributed this difference to the fact that Turkey is a gradually

developing country and teaching is considered a safety net for young people, not a first career choice.

Another group of researchers used FIT-Choice Scale data to make international comparisons between Australia, United States, Germany, and Norway (Watt et al., 2012). Watt et al. (2012) found that motivations were similar internationally. Differing from other studies using the FIT-Choice scale, this study found that prior positive experiences with teaching and learning were noted among the highest motivational factors in students studying to become teachers (Watt et al., 2012).

As opposed the majority of studies which were based on data of preservice teachers enrolled in education programs, S. Liu and Onwuegbuzie (2014) questioned 510 teachers working in China regarding what influenced them to enter the profession. Their research showed that the top reasons for entering teacher were “I always wanted to become a teacher and I was attracted to teaching because of the salary” (S. Liu & Onwuegbuzie, 2014, p. 79).

Although it was not always found to be the leading factor, the majority of researchers found the influence of or experience with teachers to be a significant element in the decision to enter the field of education (P. Liu, 2010; Jantzen, 1981; Marso & Pigge, 1986; Richards, 1960; Roberson et al., 1983; Sinclair, 2008; Su, 1993). Based on the research, it is apparent overall that the relational aspect of the influence of others is a strong factor in the motivation of teachers to enter the field (P. Liu, 2010; S. Liu & Onwuegbuzie 2014; Jantzen, 1981; Marso & Pigge, 1986; Sinclair, 2008; Su, 1993). Intrinsic motivations and extrinsic motivations were both found to play a significant role in the decision to become an educator (König & Rothand, 2012; P. Liu, 2010; Richardson & Watts, 2006; Sinclair, 2008; Watt et al., 2012; Yüce et al., 2013).

Pathways into Education

In addition to considering the motivations behind entering the field of education, the pathways available could also impact recruitment in the profession. The teacher shortage in the United States has led to many variations in the pathways available to enter the field. National and state leaders have implemented policies and focused funding efforts on recruiting more people into the profession and decreasing the barriers for becoming certified (Guarino et al., 2006). This section reviewed research regarding traditional and alternative certification programs.

Traditional Certification Programs

Many recruitment efforts are underway in the United States and there are a variety of opportunities for becoming a certified teacher. Traditional teacher preparation programs, those based in colleges and universities continue to provide the majority of certifications (USDOE, 2016). Researchers reported that traditional programs “generally serve undergraduate students who have no prior teaching or work experience” (USDOE, 2016, p. xiii). Although some programs led to a bachelor’s degree, there were traditional programs which provided certification without degree completion (USDOE, 2016). Requirements for teacher certification programs were reported to vary from state to state but most traditional certification programs included admissions standards, completion requirements, and a supervised practical experience (USDOE, 2016).

Researchers reported that the 2014 data showed that 69% of all teacher certification programs in the United States were traditional programs (USDOE, 2016). Of individuals who received certification in 2014, 89% of them completed a traditional program (USDOE, 2016). Traditional education programs range in focus from an academic based approach to a practitioner

approach (Zeichner, Payne, & Brayko, 2015). Much of the research regarding teacher preparation programs revolves around the ongoing debate about the most effective ways to connect program coursework to practical experience (Zeichner et al., 2015).

Alternative Certification Programs

In addition to traditional certification programs, alternative certification programs were also developed as part of the teacher recruiting arsenal (DeMonte, 2015; Guarino et al., 2006; Ludlow, 2011; Spradlin & Prendergast, 2006). By 2007 all states offered alternatives certification options for teachers (Ludlow, 2011). According to researchers, more than 40% of teachers in 2012 were trained in alternative programs (Ingersoll, Merrill, & May, 2012). Alternative programs vary in structure and quality as much as traditional programs (Ludlow, 2011).

Follo and Rivard (2009) examined a university which offered both a traditional program and an alternative or fast track option to education students. The instructors and curriculum were the same for both groups of students but the programs differed on time allocated to coursework and student teaching (Follo & Rivard, 2009). The researchers compared the scores of traditional program participants to the fast track participants on the Michigan Elementary Education Test taken to receive certification (Follo & Rivard, 2009). Alternative program participants outscored the traditional participants in the four categories of math, language, social studies, and science as well as the overall scores (Follo & Rivard, 2009). Researchers attributed the increased scores of the alternative program participants to older age and increased work experience (Follo & Rivard, 2009). The alternative group was also organized as part of a cohort that worked well in small and large groups, shared information freely, and requested feedback regularly which the researchers determined added to the increased scores (Follo & Rivard, 2009).

Ingersoll et al. (2012) examined the retention rates of new teachers trained in alternative or nontraditional programs. Their findings indicated that the educational background of teachers, if their degree was in education or in the field of study they would be teaching, did not make a significant difference in attrition rates (Ingersoll et al., 2012). The amount of training in pedagogy preparation and practical teaching experience provided in the alternative program did make a significant difference in retention rates (Ingersoll et al., 2012). New teachers who received more training and opportunities to practice teaching had higher retention rates than those who did not (Ingersoll et al., 2012). Those who received little to no training in pedagogy or practice teaching were two times more likely to leave teaching after the first year than those who had comprehensive training in pedagogy and practical experience (Ingersoll et al., 2012).

Other researchers concluded that the quality and structure of the alternative program, as in traditional programs, determined the effectiveness of the teachers it produced (Karge & McCabe, 2014). High quality alternative programs produced a 96% retention rate among special education teachers who had been teaching 10 years or more (Karge & McCabe, 2014). The key factors present in the high quality programs were opportunities for practice in a supportive environment that was highly structured and included collaboration (Karge & McCabe, 2014).

Although researchers illuminate variations in the quality and outcomes for different programs, Ludlow's (2011) review of the research on alternative certifications program since the first alternative certification programs were introduced the 1980s came to several conclusions. The researchers' data supported that program structures vary greatly and are reflective of each state's educational strategy (Ludlow, 2011). When looking at the research over time, Ludlow discovered no considerable distinction in student achievement among alternatively certified teachers but was inconclusive regarding if the programs enrolled higher quality teachers.

Evidence did consistently support that alternative certification programs provide more males and a more ethnically diverse group of participants who are more likely to teach in schools with larger minority populations (Ludlow, 2011).

Researchers have examined many aspects of the teacher shortage including recruitment tools, backgrounds and achievement levels of those choosing to enter the field of education, motivations to become a teacher, and pathway options (Darling-Hammond, 2010; DeMonte, 2015; Guarino et al., 2006; Ingersoll et al., 2012; Ludlow, 2011; Spradlin & Prendergast, 2006). Another approach to studying the issue of teacher turnover has been to approach it from the standpoint of the current teaching professionals.

Teaching Professionals

In an effort to understand what is happening within the field of education regarding teacher turnover, researchers have studied many aspects of current teachers. Quantitative and qualitative data have been collected in order to ascertain the identity of teachers, why they are staying, and why they are leaving the field (Goldring et al., 2014; Guarino et al., 2006; Ingersoll et al., 2014). The demographic factors have been explored (Goldring et al., 2014; Guarino et al., 2006; Ingersoll et al., 2014) along with motivational aspects (Borman & Dowling, 2008; Ingersoll, 2002; Ladd, 2011; Tickle et al., 2011) and properties that could be contributing to teacher recruiting behavior (Tsui, 2007).

Demographics of Educators

Since 1987, the NCES has collected large amounts of data on teachers using the School and Staffing Survey and the Teacher Follow-up Survey (Ingersoll et al., 2014). Researchers used the data to study many aspects of education including trends in teacher demographics (Goldring et al., 2014; Guarino et al., 2006; Ingersoll et al., 2014). Seven trends were found in a

longitudinal analysis of the data from 1987 through 2012 (Ingersoll et al., 2014). The changes in the demographics, which were explored in this section, included a workforce that researchers described as “larger, grayer, greener, more female, more diverse by ethnicity, consistent in academic ability, and less stable” (Ingersoll et al., 2014, p. 1).

From the mid-1980s until 2008 there was a consistent increase in the teacher population (Ingersoll et al., 2014). The number of teachers increased at a larger rate than the number of students from 1987-2008 which resulted in a decreased the teacher-teacher ratio from 17.2 in 1989 to 15.3 in 2008 (NCES, 2016a). Researchers found growth in some specific areas of teaching including pre-kindergarten, English as a second language, special education, math, and science (Ingersoll et al., 2014). There was a slight shift in 2008, which could be attributed to the economic downturn and, although the number of students continued to increase from 2008-2012, the number of teachers declined 1% (Ingersoll et al., 2014).

The graying trend described by researchers showed that “the teaching force has gotten older, and teacher retirements have steadily increased” (Ingersoll et al., 2014, p. 9). However, the researchers have also concluded that the trend has ended (Ingersoll et al., 2014). The researchers also determined that 44% of teachers in 2011-2012 were under the age of 40 (NCES, 2016a). The most common age for teachers in 1988 was 41 which rose to 55 in 2008 but dropped to 30 in 2012 (Ingersoll et al., 2014). An interesting aspect of the age data showed a shift from a bell shaped distribution in 1987-1988 to a bi-modal distribution in 2007-2008 and then a shift towards the younger average in 2011-2012 (Ingersoll et al., 2014).

Along with the trends in the age of teachers, the level of experience has changed (Ingersoll et al., 2014). Researchers found a large number of teachers, regardless of age, were beginning teachers (Ingersoll et al., 2014). The percentage of teachers with fewer than 10 years

of experience shifted from 37% in 1987-1988 to 50% in 2007-2008 and was 45% in 2011-2012 (Ingersoll et al., 2014). Not only were teachers found to be newer but the beginning teachers had the highest turnover rates with 41% leaving within the first five years of teaching (Ingersoll et al., 2014). Boyd, Lankford, Loeb, Ronfeldt, and Wyckoff (2011) found that highly qualified teachers were less likely to leave a position once they gained practical experience and found success with student achievement. Synar and Maiden (2012) explored this trend further and found a bi modal trend in teacher attrition due to those who leave within the first five years and then have gained enough experience and specific capital that the longer they stay the more likely they were to stay until retirement age.

Teaching has always been a female-dominated profession but researchers found that the number of females going into the profession has increased along with the percentage of teachers who are female (Guarino et al., 2006; Ingersoll et al., 2014). The number of men entering the teaching field from 1980-2012 increased by 22% but was still less than half the increase of the women (Ingersoll et al., 2014). From 1988 to 2012 women entering the workforce in general increased 29% but the increase of women entering education was 56% (Ingersoll et al., 2014). In 2011-2012, 76% of all teachers were women (Ingersoll et al., 2014; NCES, 2016a). The largest percentage of increase of female teachers was in the secondary level (Ingersoll et al., 2014). Researchers pointed out that data from 2012 revealed women made up 58% of high school teachers, 72% of middle school teachers, and 89% of elementary school teachers (Ingersoll et al., 2014).

Another trend in the demographic data revealed that the teaching force has become more diverse in terms of ethnicity (Ingersoll et al., 2014). Efforts to recruit minorities have proven successful and the number of teachers from minority groups increased 5% from 1987 to 2012

(Ingersoll et al., 2014). Although this did not seem like an enormous variance, when taken into account the overall increase in the number of teachers, the “growth in the number of minority teachers outpaced growth in minority students and was over twice the growth rate of white teachers” (Ingersoll et al., 2014, p. 17). Minority teachers were also found to be more likely to work in disadvantage schools but “data also show that the rates at which minority teachers depart from schools is significantly higher than that of white teachers” (Ingersoll et al., 2014, p. 18).

The academic ability of teachers was demonstrated to be fairly consistent over the past 25 years but there were some trends found based on scores and training (Ingersoll et al., 2014). Teachers tended to score lower on standardized testing than other professions but some researchers attributed it to lower scores of elementary educators who make up the majority of teachers (Guarino et al., 2006; Ingersoll et al., 2014). Based on Barron’s six-category ranking of colleges and universities, researchers examined where teachers attended preservice training and found an increase in the number of men and women entering teaching from the top ranked schools (Ingersoll et al., 2014). Borman and Dowling (2008) noted there was a trend of higher attrition rates with more experienced, highly-trained teachers. Boyd et al. (2011) found teachers with stronger qualifications were more likely to request transfers and attributed it to them having more options due to their qualifications.

The final trend found by researchers is the continued decrease in the stability of the profession (Ingersoll et al., 2014). When compared to other professions, attrition among teachers is similar to police officers, higher than nursing, and much higher than that of lawyers and engineers (Ingersoll et al., 2014). Lack of stability was not only attributed to teachers leaving the profession but by the amount of turnover due to teachers moving to different schools (Ingersoll et al., 2014). Disadvantaged schools with “high-poverty, high-minority, urban, and rural public

schools” (Ingersoll et al., 2014, p. 23) suffered the highest turnover rates. Researchers have also discovered a trend of movement of teachers from disadvantage schools to less disadvantage schools (Guarino et al., 2006; Ingersoll et al., 2014).

Researchers use the Teacher Follow Up Survey data of 2011-2012 to determine that of public school teachers “84 percent remained at the same school (‘stayers’), 8 percent moved to a different school (‘movers’), and 8 percent left the profession (‘leavers’) during the following year” (Goldring et al., 2014, p. 3). Of those teachers who moved schools, 59% moved to a school in the same district, 38% went to another public school district, and 3% went to a private school district (Goldring et al., 2014). In order to better understand the trends in demographics related to the teacher shortage, many researchers have inspected factors that impact motivations of those who decide to remain or leave the field of education.

Factors of Teacher Retention

As the researchers of self-determination theory on motivation have described, there are many factors involved in understanding why people do what they do (Deci & Ryan, 1985). Several components of a job influence the decision to remain in a situation or seek other alternatives. Many researchers of the teacher turnover issue have found that both intrinsic and extrinsic factors contribute to the job satisfaction levels of teachers (Andrews & Brown, 2015; Behrstock-Sherratt & Rizzolo, 2014; Borman & Dowling, 2008; Darling-Hammond, 2003; Erdamar & Demiral, 2016; Ingersoll, 2002; Ladd, 2011; X. Liu, 2007; Tickle et al., 2011). Job satisfaction was directly associated with working environments (Borman & Dowling, 2008; Darling-Hammond, 2003), perceived autonomy (Ladd, 2011; X. Liu, 2007), and administrative support (Behrstock-Sherratt & Rizzolo, 2014). Researchers have also concluded job satisfaction levels of teachers were an important component for teacher retention (Borman & Dowling, 2008;

Ingersoll, 2002; Ladd, 2011; Tickle et al., 2011). A final factor linked to job satisfaction and motivation in teachers was professional identity (Tsui, 2007).

Job Satisfaction

Researchers have established that it necessary for teachers to be satisfied with their jobs in order to do their jobs with eagerness and passion in order to support an effective learning environment for students (Erdamar & Demiral, 2016). Job satisfaction was found to affect a person's psychological health and the potential for success in one's home and work life (Erdamar & Demiral, 2016). An Indonesian study of high school teachers showed that job satisfaction even has a significant and positive impact on teacher performance (Arifin, 2015).

A Turkish study on teachers across the school spectrum showed that job satisfaction is related to life satisfaction, work-family conflict, and family-work conflict (Erdamar & Demirel, 2016). Erdamar and Demirel's (2016) research indicated that as life satisfaction increased, job satisfaction increased and as conflicts with work-home increase, job satisfaction decreases. They revealed that life satisfaction and work-family satisfaction are reliable predictors of job satisfaction (Erdamar & Demirel, 2016).

Ingersoll (2002) determined that job dissatisfaction and the desire to pursue a better job accounted for half of teachers leaving their jobs. Ingersoll linked job dissatisfaction to "low salaries, lack of support from school administration, lack of student motivation, student discipline problems, and lack of teacher influence over decision making" (p. 26). Ingersoll recommended that working conditions could be improved by increasing teacher pay, involving teachers in the rule making process to decrease disciplinary problems, allowing teachers to have input in decisions regarding their work, and providing administrative support, especially for new teachers.

Working Environment

Darling-Hammond (2003) supported Ingersoll's ideas by indicating that the keys to limiting attrition in the teaching force were to focus on improving working conditions by making teachers part of the decision-making process, offering supportive instructional leadership, and providing collegial learning opportunities. Darling-Hammond encouraged administrators to hire better prepared teachers and challenge veteran teachers by providing leadership opportunities and ongoing learning.

Borman and Dowling (2008) conducted a meta-analysis on teacher career paths to understand why attrition occurs. Their research further supported previous work and put forward that working conditions were strong predictors of teacher attrition (Borman & Dowling, 2008). Although theories of supply and demand view some forms of attrition as healthy, Borman and Dowling concluded that turnover was not contributing positively to the educational system due to more highly skilled, experienced, and better trained teachers are leaving with greater frequency than those with less skills. In addition, Borman and Dowling found that the reasons teachers leave the profession change throughout the span of a career. Higher attrition rates occur at the early and late stages of a teaching career (Borman & Dowling, 2008). The research attributes the early attrition to less experience and capital being invested in the field with more opportunity to transfer skills easily to another profession (Borman & Dowling, 2008). Teachers tend to retire early, accounting for high attrition at the end of their careers (Borman & Dowling, 2008).

Ladd (2011) found that working conditions were highly predictive of intended departure rates of teachers, citing demographic characteristics of the students, the school leadership hierarchy, teacher empowerment, and collaboration as the most relevant components of the

teachers' perception of their working conditions. Finally, Borman and Dowling (2008) concluded that working conditions had a larger impact on teacher attrition than previously noted. They found that “greatest teacher attrition rates are found in those schools serving low-achieving, poor, and minority students” (Borman & Dowling, 2008, p. 398).

Perception of Autonomy

X. Liu's (2007) research considered the teachers' perceptions of their own influence as a key variable in job satisfaction. X. Liu studied data on teacher turnover after the first year of teaching from the Schools and Staffing Survey for 1999-2000 and observed that as teachers' perception of their influence at the school had a significant impact on the attrition rates. The data showed that “the predicted probability of first-year teacher attrition can decrease from 19% to 4% as teacher influence at school changes from no influence to a great deal of influence” (X. Liu, 2007, p. 13).

Research also showed that salaries, opportunities for teacher collaboration, and administrative support were consistent variables in teacher retention (Borman & Dowling, 2008). Nazareno (2015) presented data from a pilot study conducted by Denver Public Schools in 2013-2014 that shifted the organization structure to provide teachers more impactful leadership roles. The research stated that policies promoting collaboration and giving teachers the autonomy increased job satisfaction among teachers. Nazareno further explained that autonomy empowers teachers to address student needs and encourages teachers to take more responsibility for student achievement.

Administrative Support

Tickle et al. (2011) analyzed data from the 2003-2004 Schools and Staffing Survey to determine the impact of administrative support on teacher retention and job satisfaction. Their

findings supported previous research that the most significant predictor of intent to remain in teaching was job satisfaction (Tickle et al., 2011). Tickle et al. (2011) listed the primary contributing factors in job satisfaction as contentment with salary, administrative support, and student behavior.

Behrstock-Sherratt and Rizzolo (2014) furthered the discussion on how administrative support impacts retention. They presented a model for school districts which includes teachers in the decision making process in order to improve retention, recruitment and morale (Behrstock-Sherratt & Rizzolo, 2014). Behrstock-Sherratt and Rizzolo noted that if teachers do not trust leadership or feel as if they are not part of the decision making process, they are unlikely to share responsibility in implementing reforms that improve student outcomes. Andrews and Brown (2015) added to this notion with research on special education teachers, who “have a lower teacher retention rates compared to general education” (p. 126). Their study showed that teachers found greater satisfaction when they felt that they had more control (Andrews & Brown, 2015).

Song and Mustafa (2015) considered job satisfaction by examining science teachers through interview with principals and teacher surveys. Their findings further advocated the possibility for administration to affect teacher satisfaction (Song & Mustafa, 2015). Song and Mustafa concluded that job satisfaction was increased when there was support from administration, teacher leaders, and parents. In addition, their research showed that new teachers especially need additional emotional support from administration to deal with the challenges of the job (Song & Mustafa, 2015).

Ladd’s (2011) research supported that level of compensation and job satisfaction are the two main contributing factors for teachers in the decision to remain in a job. Additional findings

showed that both direct and indirect leadership were important factors in teacher satisfaction (Ladd, 2011). Ladd defined direct leadership from administration as supporting teachers, providing a shared vision, creating a trusting environment, and including teachers in decision making and problems solving. Ladd further noted that indirect leadership factors included administration providing opportunities for teachers to have meaningful professional development, leadership roles, and collaboration.

Professional Identity

Researchers have linked job satisfaction levels to the retention of teachers (Borman & Dowling, 2008; Ingersoll, 2002; Ladd, 2011; Tickle et al., 2011) and that job satisfaction was also tied to professional identity (Tsui, 2007). Researchers described the formation of professional identity as complex process involving personal and social constructs as well as organizational configurations and culture (Tsui, 2007). Lakateb (2016) found that teacher professional identities were based in their experiences in education prior to becoming a teacher, influences of their training programs, on the job experience, and the organizational constructs that impacted their work. Lakateb further stated teacher professional identity was a continual process of defining the characteristics that are relevant to teaching on an individual and collective scale.

Professional identity determined how teachers view their own role and how they represented themselves individually and as a group to those outside the field (Tsui, 2007). Tsui (2007) described the multidimensional role professional identity as a process of the “participation in negotiating meanings and sharing the ownership of meanings” (p. 678). Participation or lack of participation in the process was determined by the power structure within the organization (Tsui, 2007). Conflicts that arose through the process “could lead to new forms

of engagement in practice, new relations with members of the community, and new ownership of meanings. Or they could lead to identities of marginality, disengagement, and nonparticipation” (Tsui, 2007, p. 678). This was especially true with new teachers so researchers suggested that induction and mentor programs were important to increase engagement (Tsui, 2007). The process of determining professional identity was closely tied to factors associated with recruitment and retention of teachers (Tsui, 2007).

The research of Parding et al. (2012) further supported the notion that changes in professional identity served both to renew the profession and also marginalizes it depending on the power structure of the group. The researchers indicated that “by examining the role of identity, one can come to understand the dynamics of various forces involved in shaping what views or logics or discourses are winning and which ones are losing” (Parding et al., 2012, p. 303). A struggle was often acknowledged with contradicting identities on various levels of the profession (Parding et al., 2012). Parding et al. viewed at least three levels of identity formation: “in professional associations and communities; in regional and national school systems and municipalities or companies that employ teachers; and in the teaching activities and the students” (p. 304). Changes in the climate of the institution, organization, management, and administration of education at the local, regional, and national levels had a large impact on professional identity of teachers in the classroom (Parding et al., 2012).

Other researchers have detailed the importance of those teaching at the university and those who mentor future teachers to shape their professional identity (Correa, Martinez-Arbelaiz, & Gutierrez, 2014). Correa et al. (2014) further concluded that “the imagined professional identity that the next generation of teachers forges, far from making them more vulnerable, can become a powerful impetus for innovation and educational change” (Correa et al., 2014, p. 447).

Researchers have consistently linked job satisfaction to retention, and the main factors contributing to job satisfaction were found to be related to working environment, perceived autonomy, and administrative support (Andrews & Brown, 2015; Behrstock-Sherratt & Rizzolo, 2014; Borman & Dowling, 2008; Darling-Hammond, 2003; Erdamar & Demiral, 2016; Ingersoll, 2002; Ladd, 2011; X. Liu, 2007; Tickle et al., 2011; Tsui, 2007). After considering the motivation factors behind teacher turnover, the next step was to explore teacher recruitment.

Teacher Recruitment

The teacher turnover issue has led to many different approaches to encouraging people to enter the education profession. This section provides information regarding the policies and programs that have been implemented to recruit teachers. It also examined the research related to recruitment behaviors of teachers.

Recruitment Through Policy and the Profession

The enactment of the No Child Left Behind Act of 2001 (NCLB; 2002) enabled legislators to use funds to develop teacher recruitment programs throughout the United States and many options became available to entice people into education (Ingersoll, 2002). Recruitment efforts were based on the supply and demand framework which supported that an increased need for teachers could be solved by increasing the flow of people into the occupation (Guarino et al., 2006).

Policymakers attempted to deal with teacher recruitment by providing scholarship opportunities, incentives, fellowships, loan forgiveness programs, and alternative certification programs (Spradlin & Prendergast, 2006). Colleges and universities also developed initiatives to increase enrollment in education programs, especially in Science, technology, engineering, and mathematics (STEM; Darling-Hammond, 2010; Hubbard, Embry-Jenlink, & Beverly, 2015).

Because states held the responsibility for providing public education, each state determined the structure of their teacher education system, how funding is distributed, and the program requirements for licensure of educators (Ludlow, 2011). States adopted many programs aimed to recruit people into the education field with a wide range of processes for selection, coursework, practical experiences and certification (DeMonte, 2015). Researchers indicated that these factors greatly influence the quality of the teacher on their first day of instruction, their ability to help students achieve, and their retention in the profession (DeMonte, 2015). Although there were efforts to standardize the process by groups such as the National Board for Professional Teaching Standards, there was little federal involvement in the certification practices (Ludlow, 2011).

North Carolina developed an intensive fellowship program aimed at high school students which paid all tuition cost for a college degree in education in exchange for a commitment to serve a number of years (Darling-Hammond, 2010). The program was highly selective and researchers established that the project increased the retention rate of teachers to 75%. The North Carolina Teaching Fellows program was found to also increase the number of men and minorities entering the profession and those who chose to become math and science teachers (Darling-Hammond, 2010).

In Texas researchers examined a scholarship program funded by the National Science Foundation to recruit students enrolled in STEM programs to consider becoming high school teachers which has experienced some success (Hubbard et al., 2015). The Talented Teachers in Training for Texas (T4) program provided a job shadowing experience with a master teacher which included an initial group meeting of all participants, a 40-hour week of job shadowing, and a half-day debriefing regarding the experience (Hubbard et al., 2015). The program also

sponsored a STEM day event at the university in which high school students explored options and learned about careers in STEM fields. The final portion of the T4 experience teamed up with the NASA's High School Aerospace Scholars (HAS), a training program for high school students, to offer an apprenticeship for STEM university students to work with the HAS teacher (Hubbard et al., 2015). From these experiences, T4 scholars were allowed to commit to years of service as STEM teachers in exchange for scholarships (Hubbard et al., 2015).

Researchers have provided examples of options for successful recruitment (Darling-Hammond, 2010; Hubbard et al., 2015), but there is little information available beyond individual efforts. Research that compares recruitment programs or provides longitudinal data on the effectiveness of various options related to recruitment was not found.

Teachers Recruiting Teachers

In a recent study by the Georgia Department of Education, an overwhelming 66.9% of the 53,000 current teachers who responded to a survey were unlikely or very unlikely to recommend high school graduates pursue education as a profession (Owens, 2015). An unusual balance was also found in the results in that high school teachers were more likely to encourage education as a profession, middle school teachers were less likely, and elementary teachers were the least likely (Owens, 2015). The researcher concluded that further research needed to be conducted to understand these results (Owens, 2015).

Other than the recent survey of Georgia teachers, the review of literature exposed a gap in research in regarding the recruitment behaviors of current teachers. Although little data were found regarding recruitment behavior among teachers, job satisfaction has been linked to recruitment behaviors in the field of nursing (Kagan et al., 2015). Nursing, like teaching, has suffered from shortages, and research has focused on retention and recruiting behaviors within

the field (Kagan et al., 2015). Researchers noted that the fields of teaching and nursing share many attributes and are both professions supporting the wellbeing of others (Parding et al., 2012; West, Griffith, & Iphofen, 2007). Historically, nursing and teaching were the only vocations available to women and both have evolved from a vocation to a skilled, highly trained profession (West et al., 2007).

Nursing struggled with a divide between public perception of the profession and actual practice (West et al., 2007). The false image of nursing as being menial and not an essential caregiver in the hierarchy of medicine was shown to be a struggle that has negatively impacted recruitment of nurses (Morris, 2010). The nursing field used data from these studies to encourage the development marketing programs for nurses to improve their self-perception and embolden them to actively promote their profession (Kagan et al., 2015, Morris, 2010).

One group of researchers inspected the problem in terms of how nurses are promoting the profession (Kagan et al., 2015). Kagan et al. (2015) questioned 169 nurses and midwives regarding their demographics, professional self-image, job satisfactions, and recruitment behaviors. In general, nursing recruitment levels were low but those in the intensive cardiac care unit were higher along with nurses who were managers (Kagan et al., 2015). Researchers further declared “a strong significant correlation between job satisfaction and marketing behavior. Multiple regression analysis shows that 15% of the variance of promoting the nursing profession was explained by job satisfaction and job position” (Kagan et al., 2015, p. 368). Conclusions could be drawn that the same factors that are motivating recruitment behaviors in the nursing field could be impacting the recruitment behaviors of teachers.

Although research on the recruitment behavior of teachers was found to be limited, the research from the field of nursing was used to look for trends in data. The research that was

available from the teaching field reflected a large portion, nearly 70%, of teachers surveyed would not promote the profession to possible recruits (Owens, 2015). Due to the scarcity of data on recruiting behavior of teachers and the results of Georgia's Department of Education survey (Owens, 2015), further research on this topic is needed.

Summary

This literature review examined the motivations of teachers to enter education, the pathways available for certification, and the factors associated with teacher recruiting behaviors. Information was provided to explore the research regarding the effect of teacher turnover on all aspects of the educational system which revealed that it has consistently had a negative impact. Literature was also presented on the motivation of people entering the teaching profession based on the motivational framework of SDT. Recruitment efforts and pathways into the field of education were also presented. Additional research was offered on current educator demographics and motivating factors associated retention including job satisfaction, working environment, perceived autonomy, administrative support, and professional identity. Finally, the limited research available on current teaching professionals and recruitment was furnished which presented the basis and justification for this research proposal. There was very limited information regarding current teacher recruiting behaviors and that which was available calls for additional information and clarification.

CHAPTER 3

METHODOLOGY

Information that outlines the methodology used to shape the research is presented in this chapter. Chapter 3 explains the research design, research questions, null hypothesis, participants, recruitment process, instrumentation, data collection procedures, data analysis, and summary. The purpose of the correlational, quantitative study was to examine if there is a relationship between teacher demographics, certification pathways taken to enter the profession, future intentions, job satisfaction, and teacher recruitment behaviors. The results of this study serve to inform the gap in research on teacher turnover regarding teacher recruitment behaviors.

Research Design

“Quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypothesis” (Ary et al., 2010, p. 22). Correlational research is a type of quantitative research that attempts to determine if variables within an experiment are related (Ary et al., 2010). In this study, data associated with demographics, pathways into the profession, future intentions, job satisfaction, professional identity, and teacher recruiting behaviors were collected using survey methodology. Surveys are used to determine the principles, behaviors, thoughts, and characteristics of a group of people that allow researchers to make inferences about the population (Ary et al., 2010).

The quantitative study was based on a survey of all K-12 teachers in Indiana. One-way factorial ANOVA and multiple regression analysis were used to evaluate the data from the survey. The continuous dependent variable was the recruitment behavior of the teacher. The categorical independent variables were the demographic categories, pathways taken into education, and future intentions. The continuous independent variable was overall job satisfaction levels.

Research Questions

The study sought to answer one main research question: What are the recruiting behaviors of current Indiana teachers? In order to address this question, the following research subquestions were proposed:

Descriptive Subquestions

1. What are the recruiting behaviors of teachers with varying demographics?
2. What are the recruiting behaviors of teachers who plan to stay in or leave the profession?
3. What are the recruiting behaviors of teachers with varying job satisfaction levels?

Inferential Subquestions

1. Are there differences in the recruiting behaviors of teachers with varying teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels?
2. Can a linear combination of the teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels predict a significant portion of the variance in teacher recruiting behaviors?

Null Hypothesis

H₀1. There are no statistically significant differences in the recruiting behaviors of teachers with varying teacher demographics, certification pathways, future plans, and job satisfaction levels

H₀2. There are no statistically predictive relationships among teachers in terms of teacher demographics, certification pathways, future plans, job satisfaction, and teacher recruiting behaviors.

Participants/Recruitment

All K-12 teachers currently working in the state of Indiana were asked to participate. E-mail addresses of current teachers were obtained through e-mail from the Department of Records of the IDOE. E-mails were sent using mail merge in order to avoid being flagged as junk or spam mail. E-mails contained a letter of introduction (Appendix A) with a brief explanation of the research project including the purpose, the significance of the research, an estimation of the time needed to complete the survey, and information pertinent to participants, including data collection methods, a statement regarding risk or non-risk, a secure link to the survey, and contact information for the researcher and faculty sponsor.

The survey began with the informed consent document (Appendix B) containing the purpose of the research, the significance of the research, and an estimation of the time needed to complete the survey. The consent document also included a description of intent of the survey to remain anonymous with a disclaimer that absolute anonymity is not possible when using an online, Internet-based survey, as per the policy guide of the Indiana State University Institutional Review Board. A statement that the survey was voluntary and the participant may withdraw at any time was also included. The participant was also provided my contact information along

with that of the Indiana State University Institutional Review Board for any questions regarding the methods used to conduct the study. The participant was required to click on a consent button to continue to the survey.

The survey (Appendix C) was open for four weeks to allow teachers time to respond. After the second week, a second e-mail (Appendix D) was sent to all e-mail addresses to thank those who had responded and encourage additional responses.

In order to encourage response to the survey, an e-mail (Appendix E) was sent at the start of the survey period to the Indiana teacher professional organizations of Indiana State Teacher's Association, Indiana Professional Educators, and the Association of Teacher Educators Indiana unit. The e-mail explained the purpose and intention of the survey and asked the organizations to promote participation in the survey to their members. The request included a link to the survey and the dates that the survey was available.

Instrumentation

I developed a survey (Appendix C) to be used to collect information. The 28-question survey was used to accumulate facts about teacher demographic information, how teachers were licensed, future intentions, job satisfaction levels, and teachers recruiting behaviors. Demographic information included gender, age group, years of experience, level of school taught, type of area in which the school is located, and licensure program. A five-point Likert scale was used to assess job satisfaction, and teacher recruitment activities. Two optional open-ended questions regarding teacher motivation and additional comments were provided at the end of the survey.

Survey Validity

Validity is “the extent to which a measure actually taps the underlying concept that that it purports to measure” (Ary et al., 2010, p. 652). Although this was a correlational study, a face validity approach was used to ensure that the survey is valid. Face validity refers to amount of confidence the examinee has that the survey is measuring what it is intended to measure (Ary et al., 2010). A pilot study was conducted with a small group of educational leadership students in order to determine if participants understood the questions. The pilot group consisted of doctoral students from Indiana State University. They were given a copy of the survey and asked the following questions:

1. Are the questions clear and easy to answer?
2. Is the length of the survey suitable for the research study?
3. Are the questions relevant to the research topic?
4. Do you have any other questions or comments that will help guide the development of this instrument?

The survey was altered based on the pilot group’s responses.

Content Validity

The survey questions were logically constructed based on an in-depth review of the literature. The survey included items to determine participant demographics, future plans, job satisfaction, professional identity, and indirect and direct recruiting behaviors questions. Feedback from the pilot study was be used to alter the content of the survey accordingly. The pilot group felt the question regarding the type of certification program the teacher participated in offered too many confusing options so it was limited to a traditional 4-year degree program or an alternative licensure program.

Data Collection

The data were collected from teachers who currently worked in the K-12 system in Indiana. The survey was supported by the Qualtrics online survey solution. Teachers were asked about their basic demographic information, pathways into the education field, job satisfaction levels, intentions on staying in the profession, and recruitment behaviors.

The survey process included the following steps:

- A link was provided in the e-mail that when clicked will take the participant to the online survey.
- The survey began by presenting the informed consent information.
- If the participants wished to continue, they clicked the button at the bottom which provided their consent and took them to the survey questions.
- The 28-question survey then began. Participants answered the question by selecting one of the choices and were then moved onto the next question. The survey questions included:
 - six questions on demographics of the participant including their certification pathway,
 - one question on how long they plan to stay in education,
 - six questions on their job satisfaction,
 - five questions on their professional identity including if they would choose education as a career again,
 - three questions on their indirect recruiting behaviors,
 - five questions on their direct recruiting behaviors of different groups of people, and

- two questions that were optional, open-ended questions regarding their motivations for teaching and the opportunity to make additional comments.
- Once all of the questions were completed, the participant was prompted to submit the survey.

The survey took approximately 10–15 minutes to complete. Participants who did not wish to complete the survey could exit the survey by closing the browser. Surveys not submitted were not counted in the data collection. All participants who selected the prompt to submit were included in the data. I received the data by logging onto a password-protected Qualtrics account through Indiana State University.

Data Analysis

Descriptive and inferential statistics were used to analyze the data collected through the survey. Descriptive statistics were used to observe frequency distributions, mean scores, and standard deviations. Descriptive statistics were used to determine trends in the population and answer the research questions:

1. What are the recruiting behaviors of teachers with varying demographics?
2. What are the recruiting behaviors of teachers who plan to stay in or leave the profession?
3. What are the recruiting behaviors of teachers with varying job satisfaction levels?

One-way factorial ANOVA analysis was used to determine the differences listed in the Inferential Question 1. Multiple regression and analysis were used to conclude the predictability of variables listed in the Inferential Question 2:

1. Are there differences in the recruiting behaviors of teachers with varying teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels?
2. Can a linear combination of the teacher demographics, certification pathways, length of time they plan to remain in education, and job satisfaction levels predict a significant portion of the variance in teacher recruiting behaviors?

The research protocols for analysis of the data were as follows:

1. Data were collected and reported regarding the make-up of the sample population including number of participants responding and number of surveys not returned.
2. Analysis of data was conducted using SPSS.
3. The means and standard deviations of gender, age, experience, grade level, location, and certification program type were evaluated for Research Question 1.
4. The means and standard deviations of teachers' plans to stay in or leave the profession were examined for Research Question 2.
5. The means and standard deviations of job satisfaction levels were analyzed for Research Question 3.
6. One-way ANOVAs were used to measure the significant differences in teacher recruiting behaviors based on each of the variables of teacher demographics, certification pathways taken into the field, length of time they plan to teach, and job satisfaction levels for Inferential Question 1.
7. Multiple regression analysis was used to evaluate the independent variables (recruitment behaviors) with respect to the dependent variables (demographics,

certification pathway, time they plan to remain in the field, and job satisfaction levels) for Inferential Question 2.

Once the data were collected, they were analyzed using applied methodologies.

Descriptive and inferential statistics were used to observe any trends in the data related to teacher demographics, certification pathway, time they plan to remain in the field, and job satisfaction levels, and teacher recruitment behavior. The data are presented without bias or subjective interpretation using APA format.

Summary

A qualitative study was conducted to examine any relationships between teacher demographics, pathways into the profession, intentions to remain in the field, job satisfaction levels, and teacher recruitment behavior. A survey was conducted of all current K-12 teachers in Indiana in order to collect data on recruitment behavior. Descriptive and inferential statistics were used to do a correlational analysis of the data collected. This section presented information on the research design, research questions, null hypothesis, data collection, instrumentation, and data analysis.

CHAPTER 4

DATA ANALYSIS

The purpose of this quantitative study was to inform the gap in data regarding teachers' recruiting behavior by determining if they encourage or discourage others to enter the field as a profession. An analysis was prepared to determine if a relationship exists between a teacher's demographic characteristics, level of job satisfaction, pathways taken into education, and recruitment behavior. Each of these main variables contained sub-elements.

Statistical analysis of the data included descriptive analysis and correlations for descriptive Research Questions 1–3. A series of one-way ANOVA analyses were used to address Inferential Research Question 1. Multiple regression models were used to test Inferential Research Question 2.

Descriptive Test Results

The survey participants were teachers who were currently working in the Indiana K-12 public school system. Total number of teachers who responded to the survey was 2,083. Demographic information included gender, age group, years of experience group, level of students taught, school location type, certification pathway, and years planning to remain in education. Other data recorded participant level of pride, promotion practices, job satisfaction levels, and recruitment behavior which was based on whether they were likely to encourage others to enter the profession. Not all respondents answered all of the survey questions.

Figure 1 depicts a visual breakdown of the descriptive test results. Of the participants,

29.0% were men and 71.0% were women. Of the age groups, which were sorted into four groups, 29.9% were age 20–35, 39.0% were 36–50, 29.2% were 51–65, and 1.9% was over 65. Years of experience were divided into five year increments which included 18.0% with 1–5 years of experience, 18.2% with 6–10 years of experience, 17.4% with 11–15 years of experience, 15.0% with 16–20 years experience, 11.0% with 21–25 years experience, and 20.4% with over 25 years of experience. Of the group, 35.1% were elementary teachers, 23.0% were middle school teachers, and 41.9% were high school teachers. The distribution was fairly even among urban (34.1%), suburban (34.4%), and rural (31.6%). Higher than the national average of 69% (USDOE, 2016), 82.0% of the participants received their certification through traditional 4-year degree programs, and 18.0% went through an alternative licensing program.

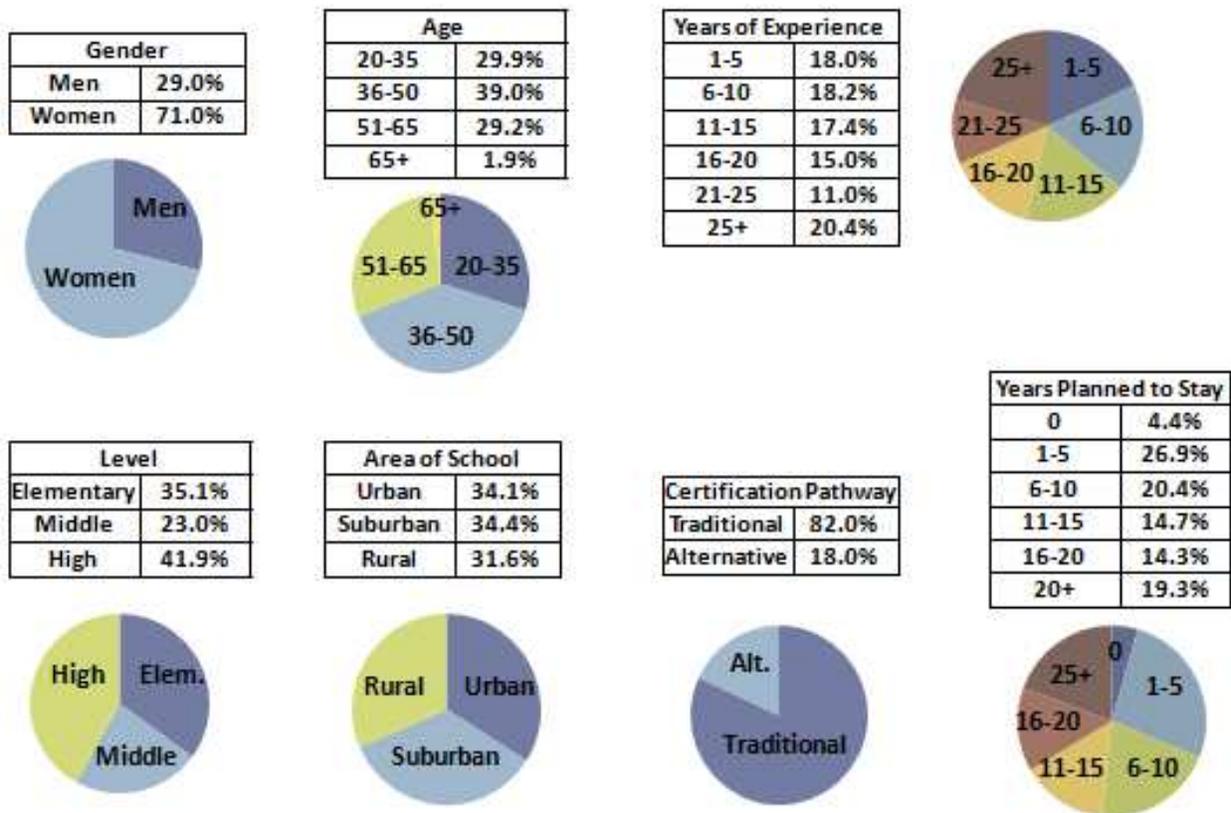


Figure 1. Descriptive test results.

Participants also reported the number of years they planned to remain in education which were grouped into categories to simply reporting. Teachers reporting that they were not planning to remain in education was 4.4%. Of those remaining, 26.9% of teachers planned to continue in education for 1 – 5 years, 20.4% for 6–10 years, 14.7% for 11–15 years, 14.3% for 16–20 years, and 19.3% for more than 20 years.

Recruiting Behaviors of Teachers

The recruiting behaviors of teachers were determined using a Likert scale in which all items were ranked on a scale of 1 to 5, 1 = *extremely unlikely*, 2 = *somewhat likely*, 3 = *neither likely nor unlikely*, 4 = *somewhat likely*, and 5 = *extremely likely*. Recruiting behavior was based on how likely the participants were to encourage groups to enter teaching as a profession. Groups consisted of a friend or relative, community member, current students, other students, recent high school graduates, and own child. The mean and standard deviations were used to show how likely teachers were to recruit others into the profession. As the mean increased from 1 to 5, the more likely teachers are to recruit.

The following section, Tables 1–5, provides the data in answer to descriptive Research Question 1, which asked, “What are the recruiting behaviors of teachers with varying demographics?” Table 1 illustrates the mean, standard deviations, and sample size of responses based on gender for the six categories on the survey regarding likeliness of the participants to encourage them to enter education as a profession. The dependent variable sets—friend or relative, community member, current student, other student, recent graduate, and own child—are referred to as categories and the dependent variable levels are referred to as groups.

Table 1

Summary of Recruiting Behaviors of Teachers Based on Gender

Group	Male Teachers			Female Teachers		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Friend/Relative	2.71	1.39	603	2.73	1.38	1472
Community Member	2.78	1.31	602	2.90	1.29	1469
Current Student	2.89	1.30	602	3.16	1.32	1467
Other Student	2.85	1.28	603	3.12	1.29	1467
Recent Graduate	2.78	1.32	600	2.93	1.34	1462
Own Child	2.48	1.41	597	2.55	1.44	1455

Note. 1 = extremely unlikely to 5 = extremely likely

The mean for each category was higher for female teachers, demonstrating they were more likely overall than male teachers to encourage all categories to enter the field of education as a profession. The largest contrast in the means for male teachers and female teachers, a difference of .27, occurred in both student categories. The range among the categories showed that both male teachers and female teachers were most likely to encourage their own students and then other students. The next most likely categories to be encouraged were recent graduates and community members. Both male teachers and female teachers had very similar means for friends or relatives group which was the next most likely category to be encouraged. Both male teachers and female teachers were least likely to encourage their own children, out of all of the categories, to enter the profession.

Table 2 illustrates the means, standard deviations, and sample size of responses based on age groups for the six categories on the survey regarding likeliness of the participants to encourage them to enter education as a profession.

Table 2

Summary of Recruiting Behaviors of Teachers Based on Age Group

Group	20 – 35			36 – 50			51 – 65			65+		
	<i>M</i>	<i>SD</i>	<i>N</i>									
F/R	2.93	1.34	621	2.68	1.41	810	2.57	1.36	608	2.90	1.46	40
CM	3.05	1.28	621	2.84	1.31	809	2.69	1.27	605	2.95	1.32	40
CS	3.30	1.28	620	3.04	1.35	808	2.91	1.29	605	3.15	1.35	40
OS	3.24	1.26	620	2.98	1.32	809	2.89	1.28	605	3.10	1.30	40
RG	3.03	1.32	617	2.87	1.36	806	2.75	1.31	602	3.10	1.34	40
OC	2.69	1.37	617	2.52	1.47	806	2.35	1.43	594	2.74	1.55	39

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

The data showed in most of the categories the 20–35 age group was the most likely to encourage entering the profession. The 65+ age group was the next most likely to encourage entering the profession and even more likely than the 20–35 age group to encourage recent graduates and their own children. The next most likely group to encourage entering the profession in all categories was the 36–50 age group. The least likely of all groups to encourage all categories of people to enter the profession was the 51–65 age group.

Among the categories, the breakdown of recruiting behavior was very similar across the years of experience groups. Current students were most likely to be encouraged to enter the

profession closely followed by other students. The next category to be encouraged was generally the recent graduates followed by community members. Again, the least likely category to be encouraged to enter the profession by all the teacher groups was their own children. Table 3 illustrates the mean and standard deviations of responses based on years of experience for the six categories on the survey regarding likeliness of the participant to encourage them to enter education as a profession.

Table 3

Summary of Recruiting Behaviors of Teachers Based on Years of Experience

Groups	1-5		6-10		11-15		16-20		21-25		25+	
	<i>M</i>	<i>SD</i>										
F/R	3.18	1.34	2.86	1.38	2.62	1.34	2.56	1.39	2.62	1.37	2.47	1.37
CM	3.30	1.26	2.97	1.32	2.78	1.24	2.72	1.30	2.82	1.28	2.58	1.27
CS	3.50	1.22	3.21	1.30	2.99	1.32	2.94	1.35	3.00	1.29	2.80	1.31
OS	3.44	1.22	3.18	1.29	2.95	1.26	2.93	1.32	2.94	1.27	2.75	1.30
RG	3.28	1.30	2.99	1.34	2.79	1.30	2.78	1.32	2.82	1.35	2.65	1.33
OC	2.95	1.37	2.67	1.40	2.45	1.45	2.35	1.45	2.42	1.44	2.29	1.42

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

In general, the data showed a decrease in the likelihood of teachers to encourage people to enter the profession as years of experience increase. Interestingly, the one exception was that the 21–25 years of experience group had slightly higher means than the 16–20 years of experience group. Other than that exception, the means steadily decreased as the experience level increased. The category breakdown was similar to the previous demographic data showing

a ranking from most likely to least likely to be encouraged to enter the profession—current student, other student, recent graduate, community member, friend or relative and then own child. Community member and recent graduate were switched in the ranking in the 1–5 years of experience group and their means were the same for the 65+ years of experience group. Table 4 illustrates the mean, standard deviations, and sample size of responses based on the level of school the teacher taught for the six categories on the survey regarding likeliness of the participant to encourage them to enter education as a profession.

Table 4

Summary of Recruiting Behaviors of Teachers Based on Level Taught

Group	Elementary School			Middle School			High School		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
F/R	2.67	1.38	729	2.61	1.43	478	2.83	1.36	872
CM	2.84	1.30	728	2.76	1.35	477	2.93	1.26	870
CS	3.22	1.29	726	2.92	1.38	477	3.05	1.29	870
OS	3.17	1.28	727	2.88	1.35	476	3.01	1.26	871
RG	2.87	1.35	725	2.77	1.38	474	2.97	1.30	866
OC	2.52	1.43	719	2.42	1.48	472	2.60	1.42	865

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

Elementary teachers were more likely than high school teachers to encourage current and other students to enter the profession. High school teachers were more likely than elementary school teachers to encourage friends or relatives, community members, recent graduates, and their own children to enter the profession. Middle school teachers were the least likely to

encourage all categories to enter teaching as a profession. The ranking by categories resembled the previous demographic variables from most likely to least likely to be encouraged to enter the profession: current student, other student, recent graduate, community member, friend or relative and then own child. Table 5 illustrates the means, standard deviations, and sample sizes of responses based on the area in which the school was located for the six categories on the survey regarding likeliness of the participant to encourage them to enter education as a profession.

Table 5

Summary of Recruiting Behaviors of Teachers Based on Area of School

Group	Urban			Suburban			Rural		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
F/R	2.69	1.39	708	2.81	1.38	714	2.67	1.38	656
CM	2.85	1.31	707	2.94	1.28	712	2.79	1.31	655
CS	3.12	1.34	706	3.14	1.28	711	2.97	1.33	655
OS	3.04	1.31	706	3.11	1.26	714	2.95	1.32	653
RG	2.88	1.34	699	2.96	1.32	713	2.82	1.35	652
OC	2.45	1.44	698	2.61	1.44	711	2.51	1.42	646

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

In all categories, suburban teachers were more likely than urban or rural teachers to encourage people to enter the profession. Urban teachers were more likely than rural teachers to encourage people to enter the profession except for their own children. Rural teachers were more likely than urban teachers to encourage their children to enter the profession. The category ranking showed no difference from the previous demographic variables from most likely to least

likely to be encouraged to enter the profession which was current student, other student, recent graduate, community member, friend or relative and then own child. Table 6 illustrates the means, standard deviations, and sample sizes of responses based on the pathway the teacher took to receive their teaching certification for the six categories on the survey regarding likeliness of the participant to encourage them to enter education as a profession. The pathways were a traditional 4-year degree program or an alternative licensing program (Transition to Teaching, Teach for America, advanced degree, etc.).

Table 6

Summary of Recruiting Behaviors of Teachers Based on Pathway to Certification

Group	Traditional			Alternative		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
F/R	2.67	1.38	1700	2.96	1.38	374
CM	2.81	1.29	1697	3.09	1.29	373
CS	3.04	1.32	1696	3.27	1.28	372
OS	2.99	1.30	1697	3.22	1.24	372
RG	2.85	1.34	1692	3.06	1.29	368
OC	2.47	1.43	1687	2.76	1.43	365

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

In all categories, teachers who received certification through an alternative licensing program were more likely to encourage people to enter the profession than teachers who went through a tradition four year degree program. Once again there was no difference in the ranking of categories from the previous demographics which was from most likely to least likely to be

encouraged to enter the profession: current student, other student, recent graduate, community member, friend or relatives, and own child.

Descriptive Research Question 2, “What are the recruiting behaviors of teachers who plan to stay in or leave the profession?” was answered using the same scaled data for recruiting behaviors as the previous question and based on the participants response to how long teachers planned to remain in education. Participants were able to choose one answer of 1–25 or 25+ years. Table 7 provides the means and standard deviations for a partial summary of the data which clustered around years divisible by five.

Table 7

Summary of Recruiting Behaviors of Teachers Based on Years Planned to Stay in Education

Group	0		5		10		15		20		25+	
	M	SD										
F/R	1.77	1.11	2.56	1.33	2.70	1.36	2.95	1.38	2.95	1.32	3.38	1.26
CM	1.96	1.15	2.66	1.22	2.89	1.30	3.08	1.30	3.07	1.24	3.45	1.19
CS	2.14	1.24	2.95	1.27	3.10	1.27	3.26	1.35	3.29	1.26	3.67	1.13
OS	2.18	1.25	2.88	1.22	3.04	1.29	3.24	1.31	3.22	1.23	3.64	1.11
RG	2.01	1.20	2.70	1.26	2.89	1.33	3.11	1.35	3.16	1.25	3.49	1.22
OC	1.65	1.07	2.31	1.38	2.51	1.42	2.76	1.45	2.77	1.46	3.17	1.36

Note. 1 = *extremely unlikely* to 5 = *extremely likely*; F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

The data illustrate that the longer teachers plan to remain in education the more likely they are to encourage all people to enter the profession. The range of the mean data were more dramatic than other demographic data. Those planning to leave the profession soon were very

unlikely to encourage entering the profession and those planning to stay for 20 or more years were very likely to encourage entering the profession. The ranking of categories among the groups was similar to previous demographic data showing from most likely to least likely to be encouraged as current student, other student, recent graduate, community member, and own child.

Descriptive Research Question 3, “What are the recruiting behaviors of teachers with varying levels of job satisfaction?” was answered using the same scaled data for recruiting behaviors as the previous questions. Overall job satisfaction was determined using a 5-point Likert scale of 1 to 5, 1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *neither agree nor disagree*, 4 = *somewhat agree*, and 5 = *strongly agree*. Participants were asked to rank “Overall, I am satisfied with my job.” Tables 8–13 illustrate the data of a teacher’s likelihood to encourage others to enter the field of education and his or her overall job satisfaction level. To give a better perspective of the complete breakdown of the overall job satisfaction level of the teachers, the percentage breakdown was 6.5% *strongly disagreed*, 16.6% *somewhat disagreed*, 8.6% *neither agreed or disagreed*, 43.4% *somewhat agreed*, and 24.9% *strongly agreed* with the statement of being overall satisfied with their jobs.

Table 8

Friend or Relative: Job Satisfaction and Recruiting Behavior

Likely to Recruit Friend or Relative	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	4.6%	8.3%	3.0%	8.7%	2.0%
Somewhat unlikely	0.8%	4.4%	3.3%	10.8%	3.5%
Neither likely/unlikely	0.4%	1.4%	1.0%	6.8%	2.5%
Somewhat likely	0.5%	2.2%	1.0%	13.9%	10.6%
Extremely likely	0.1%	0.4%	0.2%	3.1%	6.4%

Note. The cross tabulation depicts the teachers' likelihood of recruiting a friend or relative and their job satisfaction levels.

For teachers who disagreed somewhat and strongly with being satisfied in their job, the likelihood for them to encourage friends or relatives to enter the profession was low. The same was true for teachers who neither agreed nor disagreed with being satisfied in that they were somewhat or extremely unlikely to encourage friends or relatives to enter the profession. The largest percentage of teachers who strongly agreed with being satisfied in their jobs were somewhat or extremely likely to encourage friends or relatives to enter the profession. The interesting data showed that teachers who somewhat agreed with being satisfied with their job showed some differences in their recruiting behavior for friends or relatives. A larger percentage, 19.5%, were somewhat or extremely unlikely to encourage friends or relatives to enter the profession, and only 17.0% were somewhat or extremely likely to encourage friends or relatives to enter the profession.

Table 9

Community Member: Job Satisfaction and Recruiting Behavior

Likely to Recruit Community Member	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	3.8%	5.9%	2.1%	6.5%	1.2%
Somewhat unlikely	1.4%	5.6%	3.3%	10.2%	3.0%
Neither likely/unlikely	0.4%	2.4%	1.8%	9.5%	3.7%
Somewhat likely	0.6%	2.4%	1.0%	14.2%	11.2%
Extremely likely	0.3%	0.4%	0.3%	3.0%	5.7%

Note. The cross tabulation depicts the teachers' likelihood of recruiting a community member and their job satisfaction levels.

The data on the likelihood of encouraging a community member to enter the profession based on overall job satisfaction the data was very similar to that of friends or relatives. The teachers who somewhat agreed with being satisfied still had a slightly larger percentage, 16.7%, that were somewhat or extremely unlikely to encourage a community member to enter the profession than the 16.2% who were somewhat or extremely likely to encourage a community member to enter the profession.

Table 10

Current Student: Job Satisfaction and Recruiting Behavior

Likely to Recruit Current Student	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	3.5%	4.8%	2.0%	5.9%	0.9%
Somewhat unlikely	1.1%	4.4%	2.5%	7.6%	2.4%
Neither likely/unlikely	0.6%	3.0%	2.3%	8.6%	3.1%
Somewhat likely	0.9%	3.7%	1.3%	16.9%	11.2%
Extremely likely	0.4%	0.6%	0.6%	4.4%	7.4%

Note. The cross tabulation depicts the teachers' likelihood of recruiting a current student and their job satisfaction levels.

Similar to the previous data, in the current student category teachers who were not satisfied with their job were least likely to encourage their students to enter the profession. Teachers who somewhat agreed with being satisfied with their job had 13.5% who were somewhat or extremely unlikely to encourage their current students to enter the profession, but 21.3% were somewhat or extremely likely to encourage their current students to enter the profession.

Table 11

Other Student: Job Satisfaction and Recruiting Behavior

Likely to Recruit Other Student	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	3.5%	5.1%	1.8%	5.6%	0.9%
Somewhat unlikely	1.2%	4.8%	2.6%	7.9%	2.5%
Neither likely/unlikely	0.7%	3.0%	2.3%	9.5%	3.6%
Somewhat likely	0.7%	3.3%	1.2%	16.8%	10.9%
Extremely likely	0.4%	0.4%	0.6%	3.6%	7.0%

Note. The cross tabulation depicts the teachers' likelihood of recruiting other students and their job satisfaction levels.

The other student category was very similar to the current student category except the teachers who somewhat agreed to being satisfied in their jobs had a larger percentage, 9.5%, who were neither likely nor unlikely to encourage other students to enter the profession.

Table 12

Recent Graduate: Job Satisfaction and Recruiting Behavior

Likely to Recruit Recent Graduate	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	4.0%	6.4%	2.3%	6.5%	1.5%
Somewhat unlikely	1.2%	4.9%	3.1%	10.1%	3.0%
Neither likely/unlikely	0.5%	2.0%	1.8%	7.9%	2.9%
Somewhat likely	0.5%	2.8%	0.9%	14.9%	11.1%
Extremely likely	0.3%	0.3%	0.5%	3.2%	6.4%

Note. The cross tabulation depicts the teachers' likelihood of recruiting a recent graduate and their job satisfaction levels.

The recent high school graduate category also showed that teachers who strongly disagreed, somewhat disagreed, or neither agreed nor disagreed that they were satisfied with their jobs were somewhat or extremely unlikely to encourage high school graduates to enter the profession. Teacher who strongly agreed that they were satisfied with their jobs were somewhat or extremely likely to encourage high school graduates to enter the profession. The teachers who somewhat agreed that they were satisfied demonstrated a much different range of recruiting behavior with high school graduates than the others; 16.6% were somewhat or extremely unlikely, 7.9% were neither likely nor unlikely, and 19.1% were somewhat or extremely likely to encourage high school graduates to enter the profession.

Table 13

Own Child: Job Satisfaction and Recruiting Behavior

Likely to Recruit Own Child	"Overall, I am satisfied with my job."				
	<i>Strongly Disagree</i>	<i>Somewhat Disagree</i>	<i>Neither Agree or Disagree</i>	<i>Somewhat Agree</i>	<i>Strongly Agree</i>
Extremely unlikely	4.8%	9.9%	4.5%	13.0%	3.8%
Somewhat unlikely	0.6%	3.0%	2.0%	9.6%	3.2%
Neither likely/unlikely	0.4%	1.7%	1.1%	6.7%	3.1%
Somewhat likely	0.2%	1.4%	0.7%	10.6%	8.6%
Extremely likely	0.3%	0.7%	0.2%	3.4%	6.3%

Note. The cross tabulation depicts the teachers' likelihood of recruiting their own child and their job satisfaction levels.

Teachers were much less likely overall to encourage their own child to enter the profession than with any other categories. Teachers who strongly disagreed, somewhat disagreed, or neither agreed nor disagreed that they were satisfied in their jobs were extremely

unlikely to encourage their own children to enter the profession. Of those somewhat satisfied in their jobs, 22.6% were somewhat or extremely unlikely to encourage their own child to enter the profession. Even those who strongly agreed that they were satisfied in their job were less likely to encourage their own child to enter the profession than they were with all other categories of people.

Inferential Test Results

For Inferential Research Question 1, the data were analyzed using one-way ANOVA tests to determine if there were differences in the recruiting behaviors of teachers with varying demographics, pathways taken into education, plans for remaining in the profession, and job satisfaction levels. Inferential Research Question 2 was analyzed using multiple regression models in order to determine if a linear combination of the dependent variables of demographics, pathways taken into education, plans for remaining in the profession, and job satisfaction levels could predict a significant portion of variance in teacher recruiting behaviors. Recruiting behaviors were defined by the likelihood of the teacher to encourage a person to enter education as a profession. The people were split into six categories consisting of friend or relative, community member, current student, other student, recent high school graduate, and own child.

One-Way ANOVA Analyses

One-way ANOVAs was chosen to analyze Inferential Research Question 1 because recruiting behavior was one dependent variable and most of the independent variables had more than two levels. Recruiting behavior was determined using the same 5-point Likert scale used in the descriptive section. Teacher demographics consisted of five sub-categories which included gender, age, years of experience, level of students taught, and area in which the school was located. Pathways taken into education consisted of the choice of a traditional 4-year degree

program or an alternative licensure program. A teacher's plan to remain in education was determined by asking how many more years the teacher planned to remain in education. The final variable of job satisfaction was based on a 5-point Likert scale used to determine overall satisfaction with the job.

Several assumptions need to be met when using a one-way ANOVA, which include independence of observations, the normal distribution of the dependent variable, and homogeneity of variance. The surveys were taken separately so the assumption of independence was met. Levine's test was used to test the homogeneity of variance, and Tukey's post hoc analysis was conducted for significant findings. If the assumption of homogeneity of variance was not met, Games-Howell was used for post-hoc analysis. Games-Howell was used because it allows for the assumption of homogeneity of variance to be violated and accounts for unequal cell size, which occurred on multiple tests. Only one variable was unable to be used, plans to remain in education, because it violated the assumption of normality and contained multiple outliers. The measurement error is further explained in the Plans to Remain in Education section.

Gender

Several one-way ANOVAs were conducted to determine if there was a significant difference between the recruiting behavior of men and women. There were no statistically significant differences with the groups of friend or relative, $F(1, 2073) = .068, p = .794$; community member, $F(1, 2069) = 3.22, p = .073$; and their own children, $F(1, 2050) = 1.23, p = .267$. There were statistically significant differences in the recruiting behavior of men and women in regard to a current student, $F(1, 2067) = 18.35, p < .001$; other student, $F(1, 2068) = 18.74, p < .001$; and high school graduates, $F(1, 2060) = 5.41, p = .020$. Where the significant

differences were found, the mean for women was higher than the men, which meant the women were more likely to recruit those specific groups.

Age Groups

Several one-way ANOVAs were conducted to determine if there was a difference in the recruiting behavior of teachers of varying age groups. The age groups were in 15 year intervals of 20–35, 36–50, 51–65, and 65+. The results indicated that there were significant differences of recruiting behaviors in all categories: friend or relative, $F(3, 2075) = 7.63, p < .001$; community member, $F(3, 2071) = 8.10, p < .001$; current student, $F(3, 2069) = 9.17, p < .001$; other student, $F(3, 2070) = 8.23, p < .001$; high school graduates, $F(3, 2061) = 4.98, p < .001$; and their own children, $F(3, 2052) = 6.00, p < .001$. The post hoc analysis of the data showed that the mean score of the 20–35 year old group was significantly different than the 36–50 year old group and the 51–65 year old group for the friend or relative, community member, current student, and other student categories. The 20–35 year old group also differed significantly from the 51–65 group in the high school graduate and own child categories. The means and standard deviations for those with significant differences are presented in Table 14. The 65+ group did not differ significantly from any of the other groups, and the 36–51 group did not differ significantly from the 56–65 group.

Table 14

Significant Differences Between Age Groups and Recruiting Behavior

Group	Age 25 – 35		Age 36 – 51		Age 56 – 65	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Friend/Relative	2.93	1.34	2.68	1.41	2.57	1.36
Community Member	3.05	1.28	2.84	1.31	2.69	1.27
Current Student	3.3	1.28	3.04	1.35	2.91	1.29
Other Student	3.24	1.26	2.98	1.32	2.89	1.28
Recent Graduate	3.03	1.32			2.75	1.31
Own Child	2.69	1.37			2.35	1.43

Years of Experience

Several one-way ANOVAs were conducted to determine if there was a difference in the recruiting behavior of teachers of varying years of experience. The years of experience were in five year intervals and consisted of six groups (1–5, 6–10, 11–15, 16–20, 21–25, and 25+). All of the categories showed significant differences in recruiting behaviors – friend or relative, $F(5, 2075) = 13.50, p < .001$; community member, $F(5, 2071) = 14.64, p < .001$; current student, $F(5, 2069) = 13.69, p < .001$; other student, $F(5, 2070) = 13.39, p < .001$; high school graduates, $F(5, 2062) = 10.42, p < .001$; and their own child, $F(5, 2052) = 11.04, p < .001$.

In the friend or relative, community member, current student, and recent graduate categories, the 1–5 years of experience group differed from all other groups, and the 6–10 years of experience group differed from 25+ years of experience group. In the other students category, the 1–5 years of experience group differed from all other groups except for the 6–10 years of

experience group. For the same category, other student, the 6–10 years of experience group also differed from the 25+ years of experience group. For the own child category, the 1–5 years of experience group differed from all but the 6–10 years of experience group, and the 6–10 years of experience group differed from the 16–20 and 25+ years of experience groups. Table 15 shows the means and standard deviations for those with significant differences. The 1–5 years of experience group was the most likely to encourage others to enter the teaching profession. These are reflected in Table 15.

Table 15

Significant Differences Between Years of Experience and Recruiting Behavior

Groups	1 – 5		6 – 10		11 – 15		16 – 20		21 – 25		25+	
	<i>M</i>	<i>SD</i>										
F/R	3.18	1.34	2.86	1.38	2.62	1.33	2.56	1.40	2.62	13.7	2.47	1.37
CM	3.30	1.26	2.97	1.32	2.78	1.24	2.72	1.30	2.82	1.28	2.58	1.27
CS	3.50	1.22	3.21	1.30	2.99	1.32	2.94	1.35	3.00	1.29	2.80	1.31
OS	3.44	1.22	3.18	1.29	2.95	1.26	2.93	1.32	2.94	1.27	2.75	1.30
RG	3.28	1.30	2.99	1.34	2.79	1.30	2.78	1.32	2.82	1.35	2.65	1.33
OC	2.95	1.37	2.67	1.40	2.45	1.45	2.35	1.45	2.42	1.44	2.29	1.41

Note. F/R = Friend or Relative, CM = Community Member, CS = Current Student, OS = Other Student, RG = Recent Graduate, and OC = Own Child

School Level

Several one-way ANOVAs were conducted to determine if there was a difference in the recruiting behavior of teachers of varying school levels. The school levels were divided into elementary-, middle-, and high school. The categories in which the school levels had statistically

significant difference in recruiting behaviors were friend or relative, $F(2, 2076) = 4.79, p = .008$, current student, $F(2, 2070) = 7.71, p < .001$, other student, $F(2, 2071) = 7.27, p = .001$, and high school graduates, $F(2, 2062) = 3.49, p = .031$. There were no significant differences in the community member and own child categories. For the friend or relative and recent high school graduate categories, the middle school differed significantly from the high school. For the current student and other student categories, the elementary school recruiting behaviors differed significantly from both the middle school and the high school. Table 16 shows the means and standard deviations of those with significant differences.

Table 16

Significant Difference Between School Levels and Recruiting Behavior

Group	<u>Elementary School</u>		<u>Middle School</u>		<u>High School</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Friend/Relative			2.61	1.43	2.83	1.36
Current Student	3.22	1.29	2.92	1.38	3.05	1.29
Other Student	3.17	1.28	2.88	1.35	3.01	1.26
Recent Graduate			2.77	1.38	2.97	1.30

Area of School

Several one-way ANOVAs were conducted to determine if there was a difference in the recruiting behavior of teachers working in different type of areas. The areas were sorted by urban, suburban, and rural. Only one of the categories, current student, showed statistically significant differences in the recruiting behaviors of teachers based on area where the school was located, $F(2, 2074) = 3.34, p = .036$. The suburban area ($M = 3.14, SD = 1.28$) differed from the

rural area ($M = 2.97$, $SD = 1.33$). There was no significant difference with the urban area in the current student category.

Pathway Taken Into Education

Several one-way ANOVAs were conducted to determine if there was a significant difference in between the recruiting behavior of teachers who went through a traditional 4-year degree program and those who went through an alternative certification program. All of the categories showed significant differences in recruiting behaviors: friend or relative, $F(1, 2072) = 13.33$, $p < .001$; community member, $F(1, 2068) = 13.99$, $p < .001$; current student, $F(1, 2066) = 9.37$, $p = .002$; other student, $F(1, 2067) = 9.58$, $p = .002$; high school graduates, $F(1, 2058) = 7.81$, $p = .005$; and their own child, $F(1, 2050) = 12.27$, $p < .001$. In all of the categories the means were higher for those who received certification through an alternative licensing program; therefore, they were more likely to encourage others to enter the profession than those who attended a 4-year degree program.

Plans for Remaining in Education

Due to inequality in the variances, the existence of multiple outliers and unequal sample sizes, a one-way ANOVA was not applicable for the data associated with teachers' plans to remain in education and recruiting behavior due to measurement error. The wording of the question used to determine teachers' plans to stay in the profession allowed for 26 different selections which was not adequate for providing the relevant data for analysis using ANOVA.

Overall Job Satisfaction

Several one-way ANOVAs were conducted to determine if there was a difference in the recruiting behavior of teachers based on their overall job satisfaction levels. Teachers were asked if they agreed with the statement, "Overall I am satisfied with my job." The choices were

a 5-point Likert scale from *strongly agree* to *strongly disagree*. The results indicated that there were significant differences of recruiting behaviors in all categories: friend or relative, $F(4, 2061) = 155.67, p < .001$; community member, $F(4, 2059) = 140.54, p < .001$; current student, $F(4, 2057) = 169.08, p < .001$; other student, $F(4, 2058) = 127.69, p < .001$; high school graduates, $F(4, 2049) = 140.92, p < .001$; and their own children, $F(4, 2041) = 118.81, p < .001$. The post hoc analysis of the data showed that the mean score for all categories was significantly different than all of the others except for *somewhat disagree* and *neither agree nor disagree* for the friend or relative, community member, current student, other student, and high school graduate groups. In the own child category, the only mean scores that were significantly different were the *strongly agree* and *somewhat agree* categories which were significantly different from all other categories including each other. The means and standard deviations for those with significant differences are shown in Table 17.

Table 17

Means and Standard Deviations of These Areas With Significant Difference Between Job Satisfaction and Recruiting Behavior

Group	<u>Strongly Disagree</u>		<u>Somewhat Disagree</u>		<u>Neither Agree or Disagree</u>		<u>Somewhat Agree</u>		<u>Strongly Agree</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Friend/Relative	1.57	1.05	1.91	1.15	2.07	1.09	2.82	1.28	3.64	1.23
Community Member	1.78	1.17	2.14	1.12	2.32	1.09	2.93	1.20	3.69	1.10
Current Student	2.00	1.32	2.44	1.22	2.53	1.19	3.15	1.22	3.87	1.06
Other Student	1.96	1.28	2.34	1.18	2.54	1.17	3.11	1.19	3.82	1.06
Recent Graduate	1.74	1.16	2.13	1.17	2.32	1.15	2.98	1.22	3.72	1.15
Own Child	1.53	1.11	1.80	1.17	1.84	1.10	2.58	1.35	3.41	1.39

Multiple Regression Analysis

Null Hypothesis 2 was, “There are no statistically predictive relationships among teachers in terms of teacher demographics, certification pathway, time they plan to remain in the field, job satisfaction levels, and teacher recruitment behaviors.” Inferential Research Question 2 stated, “Can a linear combination of teacher demographics, the pathways taken into the field of education, and job satisfaction levels predict a significant portion of variance in teacher recruiting behaviors?” In order to answer this question, a regression model was used to determine the extent to which gender, age, years of experience, level taught, school location area, certification pathway, and overall job satisfaction can predict recruiting behaviors in teachers. Prior to interpretation of the findings, the assumptions about the variables in the regression and the residuals were assessed. All residuals of the model were of a reasonable size (within ± 3 on both axis of the plot of residuals), providing evidence of linearity. Tolerance statistics were calculated for each predictor to evaluate the presents of multicollinearity. The appropriate levels of intercorrelation among predictors were demonstrated by a tolerance range from .31 to .99. The surveys were taken separately so the assumption of independence was met. The plot of residuals indicated a random scattering of residuals providing additional evidence of independence and demonstrating homogeneity of variance. A reasonable normality of residuals was assessed using a histogram of residuals and a normal probability plot.

Recruiting Behavior – Friend or Relative

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of a teacher with a friend or relative. Results of the simultaneous multiple regression indicated that gender, age,

years of experience, level taught, area of school, certification pathway, plans to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to friends or relatives, $R^2 = .27$, $R^2 \text{ adj} = .27$, $F(8,2023) = 94.23$, $p < .001$. Specifically, this model accounted for 27% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plans to remain in education, and overall job satisfaction; when adjusted for sample size and number of predictors, the amount of variance explained was still 27%. The standard error of estimate, which would be zero for a perfect correlation, was relatively small at 1.19 which provided further evidence of the effectiveness of this predictive model. Six of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with friends or relatives.

Age. Age was found to be a significant predictor of recruitment behavior with friends or relatives, $t(2023) = 3.63$, $p < .001$. The partial regression coefficient ($b = .19$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with friends or relatives by .19 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with friends or relatives, $t(2023) = -5.61$, $p < .001$. The partial coefficient ($b = -.13$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with friends or relatives by .13 units with all other variables being held constant.

Level. Level of school taught was also found to be a significant predictor of recruitment behavior with friends or relatives, $t(2023) = 2.25$, $p < .025$. The partial coefficient ($b = .07$) for

recruitment behaviors indicated that a one unit increase in level taught, which was grouped by elementary school, middle school, and high school, was predicted to increase recruitment behaviors with a friend or relative by .07 units with all other variables being held constant.

Area. The area of the school was also found to be a significant predictor of recruitment behavior with friends or relatives, $t(2023) = -2.38$ $p < .018$. The partial coefficient ($b = -.08$) for recruitment behaviors indicated that a one unit decrease in the area of the school, which was grouped by urban, suburban, and rural, was predicted to decrease recruitment behaviors with friends or relatives by .08 units with all other variables being held constant.

Plans to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with friends or relatives, $t(2023) = 6.63$, $p < .001$. The partial regression coefficient ($b = .03$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruitment behaviors with friends or relatives by .03 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with friends or relatives, $t(2023) = 20.69$, $p < .001$. The partial regression coefficient ($b = .49$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with friends or relatives by .49 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for gender and pathway taken into education both failed significance at the $\alpha = .05$ level. Correlations between variables as well as means and standard deviations are reported in Table 18. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 19.

Table 18

Descriptive Statistics and Correlations: Friend or Relative

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.01								
Age	-.09	-.04							
Yrs Exp	-.16	-.03	.74						
Level	.05	-.31	.07	.06					
Area	.00	-.02	.01	.05	.04				
Pathway	.08	-.09	-.04	-.24	.17	-.11			
Plan	.31	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.47	.01	.02	.02	.03	.12	-.01	.30	
<i>M</i>	2.73	1.71	2.03	3.44	2.07	1.97	1.18	13.38	3.64
<i>SD</i>	1.39	.45	.82	1.77	.88	.81	.38	8.39	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 19

Regression Coefficients: Friend or Relative

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.05	.61	.02	.89	.375
Age	.19	.05	.11	3.63	.000
Yrs Exp	-.13	.24	-.17	-5.61	.000
Level	.07	.03	.05	2.25	.025
Area	-.08	.03	-.05	-2.37	.018
Pathway	.11	.07	.03	1.49	.136
Plan	.03	.00	.16	6.63	.000
Job Sat	.49	.02	.43	20.69	.000

Recruiting Behavior – Community Member

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of a teacher with a community member. Results of the simultaneous multiple regression indicated that gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to a community member, $R^2 = .26$, $R^2 \text{ adj} = .25$, $F(8,2021) = 86.45$, $p < .001$. Specifically, this model accounted for 26% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction; when

adjusted for sample size and number of predictors, the amount of variance explained dropped to 25%. The standard error of estimate, which is zero for a perfect correlation, was relatively small at 1.13 which provided further evidence of the effectiveness of this predictive model. Six of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with a community member.

Gender. Gender was found to be a significant predictor of recruiting behavior with community member, $t(2021) = 2.35, p = .019$. The partial regression coefficient ($b = .14$) for gender indicated that a one unit increase in gender was predicted to increase recruiting behavior with a community member by .14 units with all other variables being held constant.

Age. Age was found to be a significant predictor of recruiting behavior with a community member, $t(2021) = 3.03, p = .003$. The partial regression coefficient ($b = .15$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with a community member by .15 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with a community member, $t(2021) = -5.44, p < .001$. The partial coefficient ($b = -.12$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with a community member by .12 units with all other variables being held constant.

Area. Area in which the school was located was also found to be a significant predictor of recruitment behavior with a community member, $t(2021) = -3.05, p = .002$. The partial coefficient ($b = -.10$) for recruitment behaviors indicated that a one unit decrease in level taught,

which was grouped by urban, suburban, and rural, was predicted to decrease recruitment behaviors with a community member by .10 units with all other variables being held constant.

Plan to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with a community member, $t(2021) = 5.88, p < .001$. The partial regression coefficient ($b = .02$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruiting behavior with community members by .02 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with a community member, $t(2021) = 19.89, p < .001$. The partial regression coefficient ($b = .45$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with community members by .45 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for level taught and pathway taken into education both failed significance at the $\alpha = .05$ level. Correlations between variables as well as means and standard deviations are reported in Table 20. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 21.

Table 20

Descriptive Statistics and Correlations: Community Member

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.04								
Age	-.10	-.04							
Yrs Exp	-.17	-.03	.74						
Level	.03	-.31	.07	.06					
Area	-.02	-.02	.01	.05	.04				
Pathway	.08	-.09	-.04	-.24	.17	-.11			
Plan	.30	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.45	.01	.02	.02	.03	.12	-.01	.30	
<i>M</i>	2.87	1.71	2.03	3.44	2.07	1.97	1.18	13.38	3.64
<i>SD</i>	1.30	.45	.82	1.77	.88	.81	.38	8.40	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 21

Regression Coefficients: Community Member

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.14	.06	.05	2.35	.019
Age	.15	.05	.09	3.03	.003
Yrs Exp	-.12	.02	-.17	-5.44	.000
Level	.06	.03	.04	1.79	.074
Area	-.10	.03	-.06	-3.05	.002
Pathway	.12	.07	.04	1.76	.078
Plan	.02	.00	.14	5.88	.000
Job Sat	.45	.02	.41	19.89	.000

Recruiting Behavior: Current Student

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of a teacher with a current student. Results of the simultaneous multiple regression indicated that gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to a current student, $R^2 = .24$, $R^2 \text{ adj} = .23$, $F(8,2019) = 78.12$, $p < .001$. Specifically, this model accounted for 24% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction; when adjusted for sample size and

number of predictors, the amount of variance explained dropped to 23%. The standard error of estimate, which is zero for a perfect correlation, was relatively small at 1.16 which provided further evidence of the effectiveness of this predictive model. Six of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with a current student.

Gender. Gender was found to be a significant predictor of recruiting behavior with a current student, $t(2019) = 3.75, p < .001$. The partial regression coefficient ($b = .22$) indicated gender was predicted to increase recruiting behavior with a current student by .22 units with all other variables being held constant.

Age. Age was found to be a significant predictor of recruiting behavior with a current student, $t(2019) = 2.33, p = .020$. The partial regression coefficient ($b = .12$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with a current student by .12 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with a current student, $t(2019) = -4.87, p < .001$. The partial coefficient ($b = -.11$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with a current student by .11 units with all other variables being held constant.

Area. Area in which the school was located was also found to be a significant predictor of recruitment behavior with a current student, $t(2019) = -3.94, p < .001$. The partial coefficient ($b = -.13$) for recruitment behaviors indicated that a one unit decrease in level taught, which was grouped by urban, suburban, and rural, was predicted to decrease recruitment behaviors with a current student by .13 units with all other variables being held constant.

Plans to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with a current student, $t(2019) = 5.27, p < .001$. The partial regression coefficient ($b = .02$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruiting behavior with a current student by .02 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with a current student, $t(2019) = 18.73, p < .001$. The partial regression coefficient ($b = .43$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with a current student by .43 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for level taught and pathway taken into education both failed significance at the $\alpha = .05$ level. Correlations between variables as well as means and standard deviations are reported in Table 22. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 23.

Table 22

Descriptive Statistics and Correlations: Current Student

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.09								
Age	-.10	-.04							
Yrs Exp	-.17	-.03	.74						
Level	-.06	-.31	.07	.06					
Area	-.04	-.02	.01	.06	.04				
Pathway	.06	-.09	-.04	-.24	.17	-.11			
Plan	.28	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.42	.01	.02	.02	.03	.12	-.01	.30	
<i>M</i>	3.08	1.71	2.03	3.44	2.07	1.97	1.18	13.39	3.64
<i>SD</i>	1.32	.45	.82	1.77	.88	.81	.38	8.39	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 23

Regression Coefficients: Current Student

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.22	.06	.08	3.75	.000
Age	.12	.05	.07	2.33	.020
Yrs Exp	-.11	.02	-.15	-4.87	.000
Level	-.06	.03	-.04	-1.95	.051
Area	-.13	.03	-.08	-3.94	.000
Pathway	.12	.07	.04	1.69	.092
Plan	.02	.00	.13	5.27	.000
Job Sat	.43	.02	.40	18.73	.000

Recruiting Behavior: Other Student

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of a teacher with other students. Results of the simultaneous multiple regression indicated that gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to other students, $R^2 = .25$, $R^2 \text{ adj} = .25$, $F(8,2020) = 84.27$, $p < .001$. Specifically, this model accounted for 25% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction; when adjusted for sample size and number of

predictors, the amount of variance explained stayed at 25%. The standard error of estimate, which is zero for a perfect correlation, was relatively small at 1.13 which provided further evidence of the effectiveness of this predictive model. Six of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with other students.

Gender. Gender was found to be a significant predictor of recruiting behavior with other students, $t(2020) = 3.89, p < .001$. The partial regression coefficient ($b = .23$) indicated gender was predicted to increase recruiting behavior with other students by .23 units with all other variables being held constant.

Age. Age was found to be a significant predictor of recruiting behavior with other students, $t(2020) = 3.27, p = .001$. The partial regression coefficient ($b = .16$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with other students by .16 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with other students, $t(2020) = -5.61, p < .001$. The partial coefficient ($b = -.13$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with other students by .12 units with all other variables being held constant.

Area. Area in which the school was located was also found to be a significant predictor of recruitment behavior with other students, $t(2020) = -3.15, p = .002$. The partial coefficient ($b = -.10$) for recruitment behaviors indicated that a one unit decrease in level taught, which was grouped by urban, suburban, and rural, was predicted to decrease recruitment behaviors with other students by .10 units with all other variables being held constant.

Plans to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with other students, $t(2020) = 5.62, p < .001$.

The partial regression coefficient ($b = .02$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruiting behavior with other students by .02 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with other students, $t(2020) = 19.41, p < .001$. The partial regression coefficient ($b = .44$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with other students by .44 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for level taught and pathway taken into education both failed significance at the $\alpha = .05$ level. Correlations between variables as well as means and standard deviations are reported in Table 24. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 25.

Table 24

Descriptive Statistics and Correlations: Other Student

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.09								
Age	-.10	-.04							
Yrs Exp	-.17	-.03	.74						
Level	-.06	-.31	.07	.06					
Area	-.02	-.02	.01	.05	.04				
Pathway	.06	-.09	-.04	-.24	.17	-.11			
Plan	.29	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.44	.01	.02	.02	.03	.12	-.01	.30	
<i>M</i>	3.04	1.71	2.03	3.45	2.07	1.97	1.18	13.38	3.64
<i>SD</i>	1.30	.45	.82	1.77	.88	.81	.38	8.39	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 25

Regression Coefficients: Other Student

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.23	.06	.08	3.89	.000
Age	.16	.05	.10	3.27	.001
Yrs Exp	-.13	.02	-.17	-5.61	.000
Level	-.06	.03	-.04	-1.93	.054
Area	-.10	.03	-.06	-3.15	.002
Pathway	.12	.07	.03	1.64	.101
Plan	.02	.00	.14	5.62	.000
Job Sat	.44	.02	.41	19.41	.000

Recruiting Behavior: Recent High School Graduate

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of a teacher with a recent high school graduate. Results of the simultaneous multiple regression indicated that gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to a recent high school graduate, $R^2 = .26$, $R^2 \text{ adj} = .25$, $F(8,2013) = 86.40$, $p < .001$. Specifically, this model accounted for 26% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction; when

adjusted for sample size and number of predictors, the amount of variance explained dropped to 25%. The standard error of estimate, which is zero for a perfect correlation, was relatively small at 1.16 which provided further evidence of the effectiveness of this predictive model. Six of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with a recent high school graduate.

Gender. Gender was found to be a significant predictor of recruiting behavior with a recent high school graduate, $t(2013) = 2.92, p = .004$. The partial regression coefficient ($b = .18$) indicated gender was predicted to increase recruiting behavior with a recent high school graduate by .18 units with all other variables being held constant.

Age. Age was found to be a significant predictor of recruiting behavior with a recent high school graduate, $t(2013) = 3.91, p < .001$. The partial regression coefficient ($b = .20$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with a recent high school graduate by .20 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with a recent high school graduate, $t(2013) = -5.19, p < .001$. The partial coefficient ($b = -.12$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with a recent high school graduate by .12 units with all other variables being held constant.

Area. Area in which the school was located was also found to be a significant predictor of recruitment behavior with a recent high school graduate, $t(2013) = -3.01, p = .003$. The partial coefficient ($b = -.10$) for recruitment behaviors indicated that a one unit decrease in level taught,

which was grouped by urban, suburban, and rural, was predicted to decrease recruitment behaviors with a recent high school graduate by .10 units with all other variables being held constant.

Plans to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with a recent high school graduate, $t(2013) = 6.60, p < .001$. The partial regression coefficient ($b = .03$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruiting behavior with a recent high school graduate by .03 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with a recent high school graduate, $t(2013) = 19.78, p < .001$. The partial regression coefficient ($b = .46$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with a recent high school graduate by .46 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for level taught and pathway taken into education both failed significance at the $\alpha = .05$ level. Correlations between variables as well as means and standard deviations are reported in Table 26. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 27.

Table 26

Descriptive and Correlations: Recent High School Graduate

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.09								
Age	-.10	-.04							
Yrs Exp	-.17	-.03	.74						
Level	-.06	-.31	.07	.06					
Area	-.02	-.02	.01	.05	.04				
Pathway	.06	-.09	-.04	-.24	.17	-.11			
Plan	.29	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.44	.01	.02	.02	.03	.12	-.01	.30	
<i>M</i>	3.04	1.71	2.03	3.45	2.07	1.97	1.18	13.38	3.64
<i>SD</i>	1.30	.45	.82	1.77	.88	.81	.38	8.39	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 27

Regression Coefficients: Recent High School Graduate

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.23	.06	.08	3.89	.000
Age	.16	.05	.10	3.27	.001
Yrs Exp	-.13	.02	-.17	-5.61	.000
Level	-.06	.03	-.04	-1.93	.054
Area	-.10	.03	-.06	-3.15	.002
Pathway	.12	.07	.03	1.64	.101
Plan	.02	.00	.14	5.62	.000
Job Sat	.44	.02	.41	19.41	.000

Recruiting Behavior: Own Child

A simultaneous multiple regression was performed to assess the extent to which gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction can predict the recruiting behavior of teachers with their own children. Results of the simultaneous multiple regression indicated that gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction do predict a significant proportion of variance in the recruiting behavior of teachers in regards to their own child, $R^2 = .22$, $R^2 \text{ adj} = .22$, $F(8,2005) = 70.68$, $p < .001$. Specifically, this model accounted for 22% of variance in recruiting behavior was explained by gender, age, years of experience, level taught, area of school, certification pathway, plan to remain in education, and overall job satisfaction; when adjusted for sample size and

number of predictors, the amount of variance explained remained at 22%. The standard error of estimate, which is zero for a perfect correlation, was relatively small at 1.27 which provided further evidence of the effectiveness of this predictive model. Four of the eight predictors demonstrated statistical significance in predicting recruiting behaviors with their own child.

Age. Age was found to be a significant predictor of recruiting behavior with their own child, $t(2005) = 3.80, p < .001$. The partial regression coefficient ($b = .21$) for age indicated that a one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with their own child by .20 units with all other variables being held constant.

Years of experience. Years of experience was also found to be a significant predictor of recruitment behavior with their own child, $t(2005) = -5.09, p < .001$. The partial coefficient ($b = -.13$) for recruitment behaviors indicated that a one unit decrease in years of experience, which was grouped in 5-year interval categories, was predicted to decrease recruitment behaviors with their own child by .13 units with all other variables being held constant.

Plans to stay in education. Number of years planned to stay in education was found to be a significant predictor of recruiting behavior with their own child, $t(2005) = 6.62, p < .001$. The partial regression coefficient ($b = .03$) for number of years planned to stay in education indicated that a one unit increase in years planned to stay in education was predicted to increase recruiting behavior with their own child by .03 units with all other variables being held constant.

Job satisfaction. Overall job satisfaction was found to be a significant predictor of recruiting behavior with their own child, $t(2005) = 17.25, p < .001$. The partial regression coefficient ($b = .44$) for overall job satisfaction indicated that a one unit increase in overall job satisfaction was predicted to increase recruiting behavior with their own child by .44 units with all other variables being held constant.

The statistical tests of the partial regression coefficients for gender, level taught, area of school, and pathway taken into education all failed significance at the alpha = .05 level.

Correlations between variables as well as means and standard deviations are reported in Table 28. Unstandardized and standardized partial regression coefficients for all predictors are presented in Table 29.

Table 28

Descriptive Statistics and Correlations: Own Child

Variable	RB	Gender	Age	Yrs Exp	Level	Area	Pathway	Plan	Job Sat
Gender	.02								
Age	-.08	-.04							
Yrs Exp	-.15	-.03	.74						
Level	.23	-.31	.08	.06					
Area	-.02	-.02	.01	.05	.04				
Pathway	.07	-.09	-.04	-.24	.17	-.11			
Plan	.29	-.01	-.52	-.47	-.04	.04	.01		
Job Sat	.42	.01	.02	.02	.03	.11	-.01	.30	
<i>M</i>	2.53	1.71	2.03	3.44	2.07	1.97	1.18	13.42	3.64
<i>SD</i>	1.44	.45	.82	1.77	.88	.81	.38	8.39	1.20

Note. $p < .05$, RB= Recruiting Behavior, Yrs Exp= Years of Experience, Job Sat= Job Satisfaction.

Table 29

Regression Coefficients: Own Child

Variable	<i>b</i>	<i>S_b</i>	<i>Beta</i>	<i>t</i>	Sig.
Gender	.97	.070	.03	1.47	.142
Age	.21	.06	.12	3.80	.000
Yrs Exp	-.13	.03	-.16	-5.09	.000
Level	.04	.04	-.02	1.07	.283
Area	-.04	.04	-.02	-1.09	.276
Pathway	.14	.08	.04	1.77	.076
Plan	.03	.00	.17	6.62	.000
Job Sat	.44	.03	.37	17.25	.000

Two optional open-ended questions were presented at the end of the survey, “Why do you teach?” and “Is there anything else you would like to share?” The answers to these questions were not directly addressed in the research questions but some of the content was used to draw conclusions in Chapter 5. Several comments referred to frustrations teachers have with the education system, lack of respect from legislators and the community, and little or no increases in salaries for many years. Many comments stated that standardized testing and legislative requirements have taken the joy out of teaching. Numerous comments acknowledged that while they loved working with students, they were not likely to recommend teaching as a profession, especially to their own children, due to the limited salary, increasing expectations, and declining respect giving to the profession.

Summary

This chapter summarized the data collected from a survey of 2,083 teachers who were currently employed in the K-12 public school system in Indiana. The purpose was to inform the gap in research on recruiting behaviors of teachers to see if they were encouraging or discouraging others to enter the profession. Analysis of the data consisted of descriptive statistics in the form of frequencies, means and standard deviations to answer the first three research questions regarding the recruiting behaviors of teachers with varying demographics and how long they planned to remain in the profession. A cross tabulation was presented to evaluate teacher recruiting behaviors based on their overall job satisfaction levels. Inferential statistics were used to answer the final two research questions. A one-way ANOVA was used to analyze if there were differences in the recruiting behaviors of teachers with varying demographics, pathways taken into the field, plans for remaining in education, and overall job satisfaction levels. There were statistically significant findings for all of the variables. Finally, a regression analysis was utilized to ascertain if a linear combination of the teacher demographics, pathway taken into the field, plans to remain in education, and overall job satisfaction levels predicted a significant portion of the variance in teacher recruiting behavior. All of the variables except for pathway taken into education predicted a significant portion of variance in teacher recruiting behaviors. The following chapter further explored these findings and draw conclusions based on the data.

CHAPTER 5

DISCUSSIONS OF FINDINGS, CONCLUSIONS, IMPLICATIONS, AND FUTURE

The survey revealed that many teachers were not recruiting others into the profession even if they were satisfied with their jobs. Teachers noted low and stagnant salaries, increased workload and expectations, current legislation that has negatively impacted the profession, and a lack of respect from legislators and the community as reasons for not recruiting. Teachers were more satisfied with support and encouragement from administration and working conditions at the building level but frustrated by issues with the larger education structure including salary, increasing expectations, and lack of respect from those outside the field. Even through their frustrations, teachers were passionate about their profession frustration and were willing to contribute to the conversation by not only completing the survey but articulating their views by answering optional open-ended questions as well.

This chapter is divided into four sections that provide a discussion of the findings, conclusions, implications of the findings, and recommendations for future research. The first section reviews the findings as they relate to the descriptive and inferential. The second section provides conclusions drawn from the findings and linked to the literature review. The third section provides an analysis of the implications of the findings. The final section offers recommendations of future research regarding the recruiting behaviors of teachers.

The purpose of this quantitative study was to inform the gap in research on the recruiting behavior of teachers by assessing if K-12 teachers in Indiana encourage or discourage people to enter education as a profession. The factors included in the study were teacher demographics consisting of gender, age, years of experience, level taught, area of the school, and the pathway the teacher took to become certified. Additional items incorporated were teachers' plans to stay in the profession and overall job satisfaction.

The survey population consisted of the 52,184 teachers in the Indiana K-12 education system. Of that group, 2,083 people responded to the survey, approximately 4% of the total population. The response rate along with an average of 64% of respondents who shared additional information in optional open-ended responses could indicate that teachers are passionate about the topic and want to contribute to the conversation. The demographic data collected in the survey were then analyzed using the means and standard deviations of the responses. Additional methods employed were cross tabulation, one-way ANOVAs, and multiple regression analysis.

Discussion of Findings

Descriptive Research Question 1

The culmination of the data related to descriptive Research Question 1, "What are the recruiting behaviors of teachers with varying demographics," contained many interesting trends. The demographics data showed that female teachers, which made up 71.0% of the respondents, were more likely to recruit people into education than male teachers. Younger teachers, the 20–35 age group, 29.9% of the respondents, was the most likely to recruit people in the profession followed by the 65+ age group, which made up the smallest group of respondents at 1.9%. The least likely age group to recruit others into the profession was the 51–65 age group, which

accounted for 29.2% of the respondents. The years of experience showed that the more years of experience teachers had, the less likely they were to recruit. This lines up with the age group results which was reasonable since the 51–65 age group would be the most likely to have 20+ years of teaching experience. This also indicated, however, that there are issues in the profession because as teachers grow in experience and age, their view of the profession changes in a negative manner.

Demographics for the level of school taught demonstrated that middle school teachers, 23% of respondents, were the least likely to recruit people into the profession. Elementary school teachers, 35.1% of respondents, were the most likely to recruit students, both current and others. High school teachers, 41.9% of respondents, were more likely to recruit a friend or relative, community member, recent high school graduate, and their own child. It may be possible that elementary teachers are more apt to encourage their students, since they are at a young age, in any of their pursuits which could include education but less likely when they are dealing with adults or their own child.

The area in which the school was located showed that suburban teachers (34.4% of respondents) were more likely than urban (34.1% of respondents) or rural teachers (31.6% of respondents) to recruit people into the profession. Urban teachers were more likely than rural teachers to recruit other students into the profession except for their own children.

For the pathway that teachers took into education, which was divided into traditional 4-year degree programs and alternative programs, most of the respondents (82.0%) received their certification through the traditional program. Interestingly, the alternative program teachers were more likely to recruit people into the profession than the traditional program teachers.

Alternative program teachers averaged .26 higher means for recruiting than the 4-year program teachers on a 5-point scale.

The different categories of people recruited were fairly consistently ranked across all of the demographics. The most likely to be recruited were current students and then other students. Recent high school graduates were the next most likely to be recruited followed by community members. Friends and relatives were the next most likely group to be recruited. In all cases, teachers were least likely to recruit their own children into the profession. It is noteworthy that teachers were more likely to encourage their student groups and those they would have more distant relationships with and least likely to encourage the people they are closest to—friends, relatives, and especially their own children—to enter education as a profession.

Descriptive Research Question 2

The data related to descriptive Research Question 2, “What are the recruiting behaviors of teachers who plan to stay in or leave the profession?” was unevenly dispersed because too many options were offered as a response to the survey question, “How many more years do you plan to remain in education?” The data were grouped somewhat around 5-year intervals so the analysis was done based on those figures. In general, the longer teachers were planning on staying in the profession, the more likely they were to recruit others into the profession. The data were also more drastic than the other demographic variables with 1.52 being the average difference in means on a 5-point scale from those planning to stay zero years to those planning to stay 25+ years. This follows logic in that if they are remaining in the profession, for whatever reason, they would be more apt to promote the profession to others.

Descriptive Research Question 3

The final descriptive research question was, “What are the recruiting behaviors of teachers with varying levels of overall job satisfaction?” The data for this question were based on the cross tabulation of overall job satisfaction and likelihood of the teacher to encourage someone to enter the profession. In general, the data were logical in that those teachers with lower satisfaction levels were less likely to recruit others into the profession. Teachers with extremely high levels of satisfaction tended to encourage others into the profession but not at the same level that dissatisfied teachers refrained from recruiting. The largest group (43.4% of respondents), however, of teachers who somewhat agreed with the statement that, “Overall, I am satisfied with my job,” did not have a consistent tendency to recruit others into the profession. Of that group who were somewhat satisfied with their job, 22% was the average across the categories who were extremely unlikely, somewhat unlikely, or neither likely nor unlikely to recruit people into education. Of those somewhat satisfied with their jobs, a significant 29.3% were extremely unlikely, somewhat unlikely, or neither likely nor unlikely to recruit their own child into the education profession. This is remarkable because it shows that a significant number of people are not encouraging others, especially their own child, to go into education even though they are satisfied with being a teacher. This goes against logical assumptions and identifies that there are some additional issues involved in the profession.

Inferential Research Question 1

Several one-way ANOVAs were used to analyze Inferential Research Question 1, “Are there differences in the recruiting behaviors of teachers with varying teacher demographics, the certification pathways, length of time they planned to remain in education, and job satisfaction levels?” Statistically significant differences were found in nearly all of the variables tested.

The findings for gender showed significant differences with the categories of current student, other student, and recent high school graduate. In all of these cases, women were statistically more likely than men to be recruiters. The friend or relative, community member, and own child categories did not show a statistically significant difference between men and women.

The findings for age showed significant difference with all of the categories of people who could be recruited. The 20–35 age group was much more likely than the 36–50 age group and the 51–65 age group to recruit friends or relatives, community members, current students, and other students. The 20–35 age group only differed significantly from the 51–65 group for the recent high school graduates and own child.

The years of experience findings indicated significant differences in the recruiting behaviors of teachers for all of the categories. The friend or relative, community member, current student, and high school graduate categories demonstrated teachers with 1–5 years of experience were significantly more likely than all groups to recruit. The 6–10 years of experience group was also significantly more likely to recruit than the 25+ years of experience group for those categories. The other student category revealed that the 1–5 years of experience group was significantly more likely to recruit than the other groups except for the 6–10 years of experience group and the 6–10 years of experience group was significantly more likely to recruit other students than the 25+ years of experience group. The final category, own child, was similar to the other student category except that the 6–10 years group also differed significantly from the 16–20 years of experience group.

Findings for the school level identified that high school teachers were significantly more likely than middle school teachers to recruit in the friend or relative and recent high school

graduate categories. Additionally, elementary school teachers were significantly more likely than both middle- and high-school teachers to recruit current students and other students into the profession. No statistically significant differences were found for the community member and own child categories based on teacher school levels.

Findings for the area in which a school was located only yielded one significant difference in recruiting behavior. The testing revealed that suburban teachers were significantly more likely than rural teachers to recruit their current students into the profession. No other statistically significant differences were found in the other categories for area in which a school is located.

Findings for the pathway the teacher took to receive certification showed significant differences for all categories. In all cases, teachers who received certification through alternative programs were significantly more likely to recruit than those teachers who went through a traditional 4-year degree program. The average difference in the means across the categories was .26.

Findings for overall job satisfaction also illustrated significant differences for all categories of people. For friend or relative, community member, current student, other student, and high school graduate groups, teachers at all levels of job satisfaction demonstrated significant differences except for the *somewhat disagree* and *neither agree nor disagree* groups. For their own child category, the only significant difference was for those in the *strongly agree* and *somewhat agree* groups which differed from all other groups including each other.

Inferential Research Question 2

Inferential Research Question 2 stated, “Can a linear combination of the teacher demographics, certification pathways, length of time they plan to remain in education, and job

satisfaction levels predict a significant portion of the variance in teacher recruiting behaviors?” A multiple regression analysis showed that a linear combination of teacher demographics, certification pathways, and job satisfaction levels did predict a significant portion of variance in teacher recruiting behaviors. Partial regression analysis was then used to detect if specific variables showed a significant amount of prediction capabilities. Multiple significant predictors were found for each category of people. Across the categories, the amount of the variance in recruiting behavior explained by the variables ranged from 22% to 27%.

The pathway through which the teacher received certification was not a significant predictor in any of the models. The level taught was only significant in the category of friend or relative; a partial regression coefficient ($b = .07$) for recruitment behaviors indicated that a one unit increase in level taught, which was grouped by elementary, middle and high school, was predicted to increase recruitment behaviors with a friend or relative by .07 units with all other variables being held constant. All other predictor variables (gender, age, years of experience, area of the school, future plans, and job satisfaction level) were found to be significant predictors of recruiting behaviors for one or multiple categories.

Gender was found to be a significant predictor of recruiting behavior with all categories except friend or relative and own child. The partial regression coefficient for gender ranged from $b = .14$ to $b = .23$ indicating that a one unit increase in gender was predicted to increase recruiting behavior in all categories except for friend or relative and own child with a .14 to .23 units with all other variables being held constant.

Age was found to be a significant predictor of recruiting behavior with all categories (friend or relative, community member, current student, other student, recent graduate, and own child). The partial regression coefficient for age ranged from $b = .12$ to $b = .21$ indicating that a

one unit increase in age, which was grouped into category units, was predicted to increase recruiting behavior with all categories by .12 to .21 units with all other variables being held constant.

Years of experience was found to be a significant predictor of recruiting behavior with all categories (friend or relative, community member, current student, other student, recent graduate, and own child). The partial regression coefficient for years of experience ranged from $b = -.11$ to $b = -.13$ indicating that a one unit decrease in years of experience, which was grouped in 5-year intervals, was predicted to decrease recruiting behavior with all categories by .11 to .13 units with all other variables being held constant.

Area of school was found to be a significant predictor of recruiting behavior with all categories except for own child. The partial regression coefficient for area of school ranged from $b = -.08$ to $b = -.13$ indicating that a one unit decrease in area of school was predicted to decrease recruiting behavior in all categories except for own child with a .08 to .13 units with all other variables being held constant.

Plan to remain in education was found to be a significant predictor of recruiting behavior with all categories (friend or relative, community member, current student, other student, recent graduate, and own child). The partial regression coefficient for plan to remain in education ranged from $b = .02$ to $b = .03$ indicating that a one unit increase in plan to remain in education was predicted to increase recruiting behavior with all categories by .02 to .03 units with all other variables being held constant.

Job satisfaction level was found to be a significant predictor of recruiting behavior with all categories (friend or relative, community member, current student, other student, recent graduate, and own child). The partial regression coefficient for job satisfaction level ranged

from $b = .43$ to $b = .49$ indicating that a one unit increase in job satisfaction level, which was based on a 5-point Likert scale, was predicted to increase recruiting behavior with all categories by .43 to .49 units with all other variables being held constant. Job satisfaction level was the largest partial regression coefficient for the predictor variables.

Findings for friend or relative showed age, years of experience, level taught, area of the school, plan for staying in education, and overall job satisfaction level to be significant predictors of teacher recruiting behaviors. Findings for community members, current students, other students, and recent high school graduates illustrated gender, age, years of experience, area of the school, plans to remain in education, and overall job satisfaction to be significant predictors. Findings for the own child category showed age, years of experience, plan to remain in education, and overall job satisfaction to be significant predictors of teacher recruiting behavior.

Conclusions

The findings of this study showed significant differences among all the demographics (gender, age, years of experience, level taught, and area of the school) as well as plans for job satisfaction variables. Significant factors of predictability were found with gender, age, years of experience, area of the school, plans to remain in education, and job satisfaction levels. This leads to additional questions about the meaning of the relationships of these factors to teacher recruiting behaviors.

Although the majority of teachers are women (Guarino et al., 2006; Ingersoll et al., 2014), this study showed that female teachers were significantly more likely to recruit current students, other students, and recent high school graduates. Many teachers were significantly influenced to go into the field by one of their teachers, thus, it stands to reason that female teachers should be positively impacting the teacher shortage problem. However, the lack of

difference in the recruiting behaviors of men and women when it comes to friend or relative, community member, and their own child revealed that both genders were less likely to recruit those outside of the student groups which would have a negative impact on the shortage problem.

When it came to age groups, the 20–35 age group was most likely to exhibit recruiting behaviors with all categories, and the 51–65 age group was the least likely. Interestingly there was a definite increase in likelihood to recruit in the 65+ age group which was nearly as high as that of the 20–35 age group. The 65+ group was a very small portion of those surveyed, only 40 teachers, but they were nearly as encouraging as new teachers. It could be concluded that those who remain in the profession beyond a standard retirement age stayed because they enjoyed it, and therefore, would be more likely to encourage others to enter the profession.

The survey did ask for additional comments which revealed a frustration with the changes that have occurred in education due to legislation over the past 10–20 years. Those changes would have likely most impacted the 51–65 age group. Comments of frustration focused on changes made by legislation which impacted the lack of funding, lack of salary increases, a shift of focus towards testing, an increase in unrealistic expectations, and a lack of respect as experts in the field. One possible explanation is that younger teachers are coming into the profession starting off with the new requirements and are less likely to be burnt out by the changing landscape of the education system. Certification program leaders have also adapted their programs to include more experienced-based learning in order to provide more realistic expectations for teachers, and this could explain the more positive perspective of younger and newer teachers.

The frustrations with the changes in education would also account for the finding that as years of experience increase recruiting behavior decreases. Teachers reported mounting

frustration with a lack of salary increases, lack of respect, and a system that is changing in a negative manner. Research shows that increased teaching experience increases student achievement (Hanushek & Rivkin, 2007; Rockoff, 2004); yet, this study demonstrated the longer teachers remain in the profession the more frustrated they become. This supports the findings from the Georgia Department of Education survey which found that “the likelihood of recommending teaching decreases amongst those that have been in the classroom longer, hitting a low for those who have been in the profession for 21-25 years” (Owens, 2015, p. 2). The finding that the longer the length of time teachers planned to stay in education, the more likely they were to recruit is a logical. Teachers planning to leave the field would be less inclined to recommend entering the field to others.

The findings related to level taught did not mirror those of the Georgia survey which found elementary teachers less likely than middle school and both less likely than high school teachers to encourage recent high school graduates into education (Owens, 2015). This research found middle school teachers the least likely to recruit all other into education. Elementary school teachers were more likely than high school teachers to recruit their students and other students, but high school teachers were more likely to recruit all others. The data were consistent in both surveys that high school teachers would be more likely to encourage recent high school graduates to pursue education. One possible explanation for the lack of recruiting among elementary school teachers could be that the testing accountability is more prevalent at the elementary level. Not only are more grade levels involved in testing but the majority of teachers are accountable for testing results, whereas only select teachers at the high school level are directly accountable for testing results. Additional research is needed to better understand these findings determine the motivation behind the recruiting behaviors.

Suburban teachers were most likely to recruit others into the profession. This could be explained by the tendency for suburban schools to have better resources and better working conditions than schools with fewer resources. Urban teachers were more likely to recruit than rural teachers in all categories except their own child. This may be attributed to the propensity for the school to be a primary employer in many rural locations and the difficult working conditions in some urban school systems.

Although the certification pathway of a teacher was not a significant predictor of recruiting behavior, a significant difference in the recruiting behavior of teachers certified through a traditional 4-year degree program and those who were certified through an alternative certification program. Teachers certified through alternative programs were more likely to recruit others into education. These teachers normally transition from other professions into education and those with a traditional pathway are likely to only have experience as educators. Additional experience outside of the profession could provide a different perspective of the field which encourages recruiting behavior. This difference could also be accounted for by differing motivational reasons for transitioning to education as a profession from another field. Those with a traditional program often chose the field because of a strong focus on wanting to work with youth and could find the other aspects of the educational system, paperwork, testing, and data management, inhibiting, and those who have worked in other fields are not as impacted by those duties.

Some of the most interesting results were from the job satisfaction and recruiting behavior analyses. Although 68.3% of all respondents somewhat agreed or strongly agreed that they were happy with their job, only 35.3% were somewhat or extremely likely to recommend education as a profession to all groups. Among the categories, positive recruiting behavior

percentages ranged from 39.9% for current students to 28.9% for their own child. The disconnect from being satisfied in their job but not recommending it to others points to some real issues in the field of education and could speak to the system as a whole.

In order to better understand the issue, additional data from the survey included questions regarding whether teachers felt administration was supporting and encouraging, administration supported teacher efforts by enforcing student rules, and if their school was a good place to work and learn. The results for these questions showed that the majority of teachers somewhat or strongly agreed with the statements: administration was supportive and encouraging (68.9%), administration supported teacher efforts by enforcing student rules (61.4%), and if their school was a good place to work and learn (75.0%). Teachers were found to be fairly satisfied with their jobs at the school level with administration and the work environment. Factors controlled beyond the building level contributed to dissatisfaction among teachers and could be an indication of a disconnection between the upper levels of the education structure and those on the front line of education.

The survey question regarding if teachers had an impact on decisions made at the school demonstrated mixed results. Teachers who strongly or somewhat disagreed with the statement made up 35.1%, those who neither agreed nor disagreed were 17.1%, and teachers who somewhat or strongly agreed made up 47.9% of the respondents. This sentiment was also echoed in the comment section that many felt that discipline matters were not taken care of appropriately by administration and had to be dealt with in the classroom which disrupted the learning process.

The other survey question regarding job satisfaction dealt with teachers' satisfaction with their salaries. The majority, 56.8%, strongly or somewhat disagreed, 6.2% neither agreed nor

disagreed, 30.8% somewhat agreed, and only 6.4% strongly agreed that they were satisfied with their salaries. This was also evident in the comments that although expectations and workload had increased exponentially, salaries were stagnant, and there was little hope of improvement in the salary realm due to current Indiana legislation. Many felt that encouraging someone to enter the field would not allow that person to support a family on the limited salary and high insurance costs.

The other factor mentioned often in the comment section was a lack of respect for teachers from legislators and the community. This factor was not asked directly in the survey, but teachers were asked if they were likely to find themselves defending the education profession in discussions. A substantial 83.5% of respondents somewhat or strongly agreed that they often found themselves defending their profession in discussions. Constantly defending themselves would add to the reluctance to encourage others to enter a field that is seen by others in a negative light even if they were overall satisfied with their profession.

Some of the comments also shed light on the reasoning behind the tendency to recruit more with current students, other students, recent high school graduates, and community members, and not as much with friends or relatives and their own child. Teachers were naturally inclined to encourage all of those in the student categories and even community members, because it is a more general comment of the profession as a whole. When it came to friends, relatives, and especially one's own child, the negative factors related to the profession become more personal and, therefore, prominent. Many people commented that even though they loved their profession, they did not want their own children to enter the field due to the financial limits, lack of respect, constantly changing expectations, and movement away from student needs to a

test focused system. Many teachers commented that the changes in the profession had taken the joy out of teaching.

The survey had a 4% response rate and 79% of the respondents answered the first optional open-ended questions at the end of the survey which asked, “Why do you teach?” The second optional open-ended question, “Is there anything else you would like to share?” was answered by 49% of the respondents. This demonstrated that not only were teachers willing to take a survey but they cared enough to take the time to articulate their views on recruiting others into the profession.

Teacher retention and recruitment is a complex issue with many contributing factors (Cobbold, 2015), and this study was conducted to provide data on teacher recruiting behaviors due to a gap in the research. The research that was available, a Georgia Department of Education study, revealed that 67% of teachers would not recommend the profession to recent high school graduates (Owens, 2015). This study revealed that an average of 44% of teachers were extremely or somewhat unlikely to recommend education as a profession across all of the categories. An additional 16% were neither likely nor unlikely and 40% were somewhat or extremely likely to recommend education as a profession. The data were not as drastic as the Georgia data but still confounding considering that 68% of the teachers in the study somewhat or strongly agreed that they were satisfied with their job. Researchers have demonstrated that job satisfaction can have a positive correlation to teacher retention (Ingersoll, 2002). Studies in the nursing field have linked job satisfaction with more active recruiting behavior (Kagan et al., 2015). The interesting aspect of this study showed that job satisfaction does not always equate to positive recruiting behaviors.

Those who are not satisfied in their job are not likely to recruit others into the profession, but those who are satisfied do not necessarily recruit others either. The drawbacks of the profession, including stagnant salaries, increased expectations, systemic changes put in place by non-educators, and a lack of respect made recruiting others into the field difficult for teachers, especially for those closest to them. Teachers also cared enough to share their views and are passionate about their profession even through their frustrations.

Implications

The purpose of this research study was to provide data to help begin to address the gap in research regarding teacher recruiting behaviors. This data did not support the null hypotheses for either research question. There were statistically significant differences in the recruiting behaviors of teachers with varying demographics, certification pathways, future plans, and job satisfaction levels. There were also statistically predictive relationships among teachers in terms of teacher demographics, certification pathways, future plans, job satisfaction, and teacher recruiting behaviors. These findings demonstrate that research into teacher recruiting behaviors is a viable component of the discussion on teacher recruiting and retention. The research should stimulate further discussion on teacher recruiting behaviors. The findings should also encourage more research and consideration for the current teachers' role in the recruitment and retention issue.

The conclusions also illuminate several issues that are imperative in the teacher shortage discussion. The amount of significant findings for differences in recruiting behaviors for all demographic variables, certification pathways, and job satisfaction levels show that there are defined trends that need to be further explored to fully understand the nature of the difference. The significant findings of multiple predictor variables that include gender, age, years of

experience, area of the school, future plans, and job satisfaction levels further illustrations that there are groups of teachers who demonstrate specific recruiting behaviors. This study was limited to the general comment section to ascertain the motivation behind the recruiting behavior, but the volume of significant findings illustrates this is a valid avenue of research to further pursue.

Although a substantial number of teachers satisfied with their jobs are not recruiting others into the profession, there are several organizations that should take notice. The concerns presented include lack of sufficient salaries, feelings of lack of support on disciplinary issues, a focus on testing instead of student needs, having to defend the profession regularly, and an overall lack of respect does not describe a profession in healthy state. The education system is driven by teachers. If the current teachers enjoyed what they were doing but would not encourage others to enter the profession, the entire system could be in a dangerous state.

Legislators should consider how the education system is impacting those who are the primary deliverers of learning and how they are presenting the profession to others. The focus on testing and the limiting nature of legislation as it relates to teacher pay is making teaching less professional and limits the ability to attract the highest quality candidates. This research provides a picture of the teacher shortage issue through the eyes of the teachers who are saying that systemic changes are altering their recruiting behaviors even though they love their jobs. As legislators make decisions, they need to take into account the teachers' perspective to gauge the health of the educational system.

Teacher preparation programs should take notice that younger teachers, those with less experience, and teachers certified through alternative programs are more likely to recruit others into the field. They should consider what factors contribute to the differing perspectives of

younger teachers, less experienced teachers, and who are certified through alternative pathways. Traditional teacher preparation programs, which prepare the majority of teachers, are impacted by the perspectives that their alumni have on the profession and should be considering why they are less likely to recruit others into the field. This is likely to be contributing to the decline in enrollment in education preparation programs.

Professional teacher organizations should be using the data from this study to develop recruiting plans and influence legislative decisions. This research provides data from the teachers' perspective on matters and should be vital to the strategic plans of professional organizations. The response rate of 4% demonstrated that teachers were willing to contribute to the discussion and want their voices heard. Teachers are also, based on the data, frustrated and looking for an avenue not only to vent their concerns but to find ways to provide input to improve the situation. This data are fundamental to the health of the profession.

The overall implication of these findings is that the recruiting behaviors of teachers show defined trends and need to be further analyzed. Previous research has determined that teachers do impact if others enter the field (P. Liu, 2010; Jantzen, 1981; Marso & Pigge, 1986; Richards, 1960; Roberson et al., 1983; Sinclair, 2008; Su, 1993) and the evidence from this study revealed that even teachers who are satisfied with their jobs may not be likely to encourage others to enter the profession. Teachers also reported regularly defending the profession and feeling a lack of respect from the public. If those who are in the profession are not encouraging others to enter the field, then the teacher shortage issue is not likely to improve but instead continue to grow.

Future Research

This data has provided a picture of the recruiting behaviors of teachers in Indiana but has only scratched the surface. Extended data that was collected through the survey could be further

analyzed to answer other research questions of a quantitative or qualitative nature. There were questions regarding professional identity and indirect recruiting behaviors that were beyond the scope of the research questions related to this study. Not only did teachers take the time to complete the survey but felt strongly enough to articulate their thoughts on the issue. Of the respondents, 1,650 provided narrative responses on why they taught, and 1,025 provided additional narrative information when they were asked what else they would like to share. With a 4% response to the survey, the additional data could be invaluable for future research efforts.

Other future research needs to determine the part teacher recruiting behaviors may play in the teacher shortage issue as a whole. Research in the field of nursing has shown that recruiting from within a profession and internal marketing can be effective ways to improve public image and increase feelings of respect for the profession (Kagan et al., 2015, Morris, 2010). Further research in the recruiting behaviors could assist in the development of a plan to improve public perception and promote the profession from within to impact the teacher shortage problem.

Additionally, although this study provided insight into the recruiting behavior of teachers, it was limited to gathering information of the behaviors and not delving specifically into the reasoning behind the behaviors beyond the general comments. Further studies should include more in-depth analysis of motivations behind recruiting behaviors in order to determine methods to better understand the issue of teacher recruiting. More research could also be done to understand why teachers recruit differently for different groups of people. Again, due to the gap in the research, this study was designed to gather initial data and is more of a starting point for further research because the abundance of significant findings has provided the foundation to ask additional questions regarding the driving factors behind the behaviors.

Summary

In recent years, enrollment in teacher preparation programs decreased 31% nationally (USDOE, 2015) and 50% in Indiana (IDOE, 2015a). The teacher shortage issues places stress on all aspects of the education system from student achievement (X. Liu & Meyer, 2005; Ronfeldt et al., 2013) to the public's image of the teaching profession (Ladd, 2011; Parding et al., 2012). Research also demonstrated that teachers play a vital role in influencing people to pursue education as a career (P. Liu, 2010; S. Liu & Onwuegbuzie 2014; Jantzen, 1981; Marso & Pigge, 1986; Sinclair, 2008; Su, 1993). The data collected in this research suggested that the recruiting behaviors of current teachers could be impacting the teacher shortage issue. The argument could also be made that legislators, teacher preparation programs, and teacher organizations could benefit from exploring teacher recruiting behaviors and the factors that contribute to those behaviors.

The data showed significant findings in relationships between recruiting behaviors and demographic factors, plans for remaining in education, and job satisfaction levels. Most of the factors were also found to be significant predictors of teachers' recruiting behaviors. Teachers who were satisfied with their jobs were not encouraging others to enter the field which could be an indication of larger problems with the structure of the education system. There was more satisfaction indicated at the building level with administration and working conditions but a frustration with salary limitations and having to regularly defend the profession. Teachers were generally less likely to recruit those closest to them—friends, relatives, and especially their own child into the profession—than they were to encourage those with more distant relationships—their own students, other students, recent graduates, and community members. Many teachers reported that although they loved working with students, they were not likely and often insistent

that others not enter the profession due to the current state of the education system which included salary limitations, increased expectations, and a lack of respect from legislators and the community. The findings justify the relevance of researching teacher recruiting behaviors and supporting further research into the subject to better understand the motives behind these behaviors and how they are impacting the recruitment of others into the profession.

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APPENDIX A: E-MAIL TO TEACHER

Dear Participant:

I am a doctoral candidate at Indiana State University and I am conducting a study on teacher job satisfaction levels, professional identity, and willingness to encourage others to enter the profession which is referred to as recruiting behavior. The purpose of the study is to explore if there are relationships among job satisfaction, professional identity, and recruiting behaviors. It will also attempt to determine if job satisfaction and professional identity can be used to predict recruitment behaviors. I am asking all K-12 teachers in Indiana to participate in the survey.

The study consists of a survey that will take approximately 10 to 15 minutes to complete. The link for the survey is provided at the end of the email. You will be asked about basic demographic about you and your school. It also includes the type of program you took to receive your license and how long you plan to remain in education. There is a short series of questions rating your job satisfaction level, professional identity, and if they would recommend teaching as a profession to others. These questions will allow them to rate their answer on a scale of 1 to 5. There are two optional questions at the end that will allow you to elaborate on their teaching motivations and make additional comments.

It is my hope that this study will add data the perspective of Indiana teachers to the matter of teacher recruitment and retention.

Your participation is voluntary, anonymous, and there is no penalty for not participating. You are free to withdraw from the study at any point by simply closing the survey without submitting it. Once you submit the survey, you may no longer withdraw from the study. Since the Internet is being used to conduct the survey, complete confidentiality is not guaranteed but I expect that any risks, discomforts, or inconveniences will be minor and not likely to happen.

If you have questions or concerns about the survey or the study, you may contact me at (812) 621-7220 or at tjohnson24@sycamores.indstate.edu. If you have questions about your rights as a participant, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or by email at irb@indstate.edu.

The survey will be available from April 24, 2017 to May 19, 2017 at https://indstate.qualtrics.com/SE/?SID=SV_8vt8LxwFxVUKHOF.

Please note – depending on how the survey loads to your screen, you may need to use the scroll bar at the bottom of the screen to see the questions to the left or the Consent/Submit button to the right.

Sincerely,
Tricia Johnson
Principal Investigator

APPENDIX B: CONSENT TO PARTICIPATE IN RESEARCH

AN EXPLORATION OF JOB SATISFACTION LEVELS, PROFESSIONAL IDENTITY, AND RECRUITING BEHAVIORS OF TEACHERS IN INDIANA

You are being invited to participate in a research study about how Indiana teachers feel about their profession and if they are encouraging or discouraging others to enter the field. All Indiana teachers in public schools are being asked to participate. This study is being conducted by Tricia Johnson as part of a doctoral dissertation with Dr. Ryan Donlan serving as the faculty sponsor from the Department of Educational Leadership at Indiana State University.

The information you provide will be used to provide data on how current Indiana teachers feel about the profession and how they represent it to others. The questionnaire will take 10 to 15 minutes to complete. You will be asked to provide basic demographic data regarding your teaching position and licensing, how long you plan to stay in teaching, and several questions which you can choose an answer from a 1-5 scale regarding your level of job satisfaction, your professional identity, and how you represent the teaching profession to others. There will also be two optional open-ended questions regarding your teaching motivations and anything else you would like to share. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits.

Your participation in this study is voluntary. By completing and submitting the survey, you are voluntarily agreeing to participate. This survey is anonymous. There are no costs to you nor will you be compensated for participating in the study.

Since the Internet is being used to collect and transfer data, there is a potential risk of a breach of confidentiality. A possibility exists that you may feel uncomfortable answering some of the questions. We expect that any risks, discomforts, or inconveniences will be minor and we believe that they are not likely to happen. You may choose not to answer any question that makes you uncomfortable and you may discontinue your participation in the study at any time by simply closing out of the survey and not submitting your answers. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

There is no penalty involved for non-participation. Please know that as no personally identifiable information will be collected, once the survey is completed and submitted, the subject at that point cannot withdraw from the research. The benefits of this study will be the

information gained regarding the perspective of current teachers' job satisfaction levels, professional identity, and recruiting behaviors.

If you have any questions about the study, please contact me at (812) 621-7220 or at tjohnson24@sycamores.indstate.edu or Dissertation Chairperson, Dr. Ryan Donlan, at ryan.donlan@indstate.edu or (812) 237-2918. If you have any questions about your rights as a research subject or if you feel you've been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN, 47809, by phone at (812) 237-8217, or by e-mail at irb@indstate.edu.

Sincerely,
Tricia Johnson
Doctoral Candidate
Bayh College of Education
Indiana State University
(812) 621-7220
tjohnson24@sycamores.indstate.edu

APPENDIX C: SURVEY OF CURRENT K-12 TEACHERS IN INDIANA

1. What is your gender? Male Female
 2. What is your age? 20-35 years 36-50 years 51-65 years 65+ years
 3. How many years of experience do you have?
 1-5 years 6-10 years 11-15 years
 16-20 years 21-25 years 25+ years
 4. Which best describes the level students you teach:
 Elementary Middle High School
 5. Which best describes the area in which your school serves:
 Urban Suburban Rural
 6. Which type of program did you take to get your teaching certification:
 Traditional 4-yr degree program
 Alternative licensure program
 7. How many more years do you plan to remain in education? (A dropdown menu of numbers from 1-25 and 25+ will be provided as options.)
- 8 – 13. To what extent to you agree or disagree with each of the following statements about your current school?
- | | Strongly
Disagree | Disagree | Neither
Agree nor
Disagree | Agree | Strongly
Agree |
|---|----------------------|----------|----------------------------------|-------|-------------------|
| 8. I am satisfied with my salary. | | | | | |
| 9. My administration is supportive and encouraging. | | | | | |
| 10. My administration supports my efforts by enforcing student rules. | | | | | |
| 11. I have an appropriate impact on decisions made at the school. | | | | | |

12. My school is a good place to work and learn.

13. Overall, I am satisfied with my job.

How would you rate the following

Very Low

Low

Neither Low
nor High

High

Very High

14. the level of pride that you personally have as a teacher.

15. the level of pride you have for your school corporation.

16. the level of pride you have for the teaching profession.

17. the level of pride you have for the state/national education system.

18-20. How often do you find yourself doing the following activities?

Very Rarely

Rarely

Neither
Rarely nor
Often

Often

Very Often

18. displaying or wearing materials that promote teaching?

19. promoting teaching in discussions?

20. defending the education profession in discussions?

20-26. How likely would you be to encourage the following groups to enter teaching as a profession?

Very
Unlikely

Unlikely

Neither
Likely
nor
Unlikely

Likely

Very
Likely

20. friend or relative

21. community member

22. your current students

23. other students

24. recent high school graduate

25. your own child

26. If you were starting your career again, how likely would you be to go into education?

Optional open-ended questions.

27. Why do you teach?

28. Is there anything else you would like to share?

APPENDIX D: REMINDER E-MAIL TO TEACHER

Dear Teacher:

Thank you so much if you have already taken the “Teacher Survey – What is your recruiting behavior?” that was sent out the week of April 24th. I appreciate your input!

If you have not had a chance to take the survey yet, please take just a few minutes to add your responses to the data. The survey will be available until May 19th and the survey address is https://indstate.qualtrics.com/SE/?SID=SV_8vt8LxwFxVUKH0F. Please note that depending on how the survey loads to your screen, you may need to use the scroll bar at the bottom of the screen to see the questions to the left or the Consent/Submit button to the right.

I have included the information from the original email below in case you did not receive it or have questions.

Again, thank you for your time and your contribution.

Sincerely,
Tricia Johnson
Principal Investigator

I am a doctoral candidate at Indiana State University and I am conducting a study on teacher job satisfaction levels, professional identity, and willingness to encourage others to enter the profession which is referred to as recruiting behavior. The purpose of the study is to explore if there are relationships among job satisfaction, professional identity, and recruiting behaviors. It will also attempt to determine if job satisfaction and professional identity can be used to predict recruitment behaviors. I am asking all K-12 teachers in Indiana to participate in the survey.

The study consists of a survey that will take approximately 10-15 minutes to complete. The link for the survey is provided at the end of the email. You will be asked about basic demographic about you and your school. It also includes the type of program you took to receive your license and how long you plan to remain in education. There is a short series of questions rating your job satisfaction level, professional identity, and if they would recommend teaching as a profession to others. These questions will allow them to rate their answer on a scale of 1 to 5. There are two optional questions at the end that will allow you to elaborate on their teaching motivations and make additional comments.

It is my hope that this study will add data the perspective of Indiana teachers to the matter of teacher recruitment and retention.

Your participation is voluntary, anonymous, and there is no penalty for not participating. You are free to withdraw from the study at any point by simply closing the survey without submitting it. Once you submit the survey, you may no longer withdraw from the study. Since the Internet is being used to conduct the survey, complete confidentiality is not guaranteed but I expect that any risks, discomforts, or inconveniences will be minor and not likely to happen.

If you have questions or concerns about the survey or the study, you may contact me at (812) 621-7220 or at tjohnson24@sycamores.indstate.edu. If you have questions about your rights as a participant, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or by email at irb@indstate.edu.

The survey will be available until May 19, 2017 at https://indstate.qualtrics.com/SE/?SID=SV_8vt8LxwFxVUKH0F.

Please note – depending on how the survey loads to your screen, you may need to use the scroll bar at the bottom of the screen to see the questions to the left or the Consent/Submit button to the right.

*Sincerely,
Tricia Johnson
Principal Investigator*

APPENDIX E: RECRUITMENT REQUEST TO PROFESSIONAL ASSOCIATIONS

Dear (Professional Association Name):

I am a doctoral candidate at Indiana State University and I am conducting a study on teacher job satisfaction levels, professional identity, and willingness to encourage others to enter the profession which is referred to as recruiting behavior. The purpose of the study is to explore if there are relationships among job satisfaction, professional identity, and recruiting behaviors. It will also attempt to determine if job satisfaction and professional identity can be used to predict recruitment behaviors.

The study consists of a survey that will take approximately 10 to 15 minutes to complete. The link for the survey is provided at the end of the email. Teachers will be asked about basic demographic about themselves and their school. It also includes the type of program teachers took to receive their license and how long they plan to remain in education. There is a short series of questions rating teacher job satisfaction level, professional identity, and if they would recommend teaching as a profession to others. These questions will allow them to rate their answer on a scale of 1 to 5. There are two optional questions at the end that will allow teachers to elaborate on their teaching motivations and make additional comments.

It is my hope that this study will add data the perspective of Indiana teachers to the matter of teacher recruitment and retention.

I am requesting that you notify your membership of the study via your communication system and encourage them to participate in the study in order to provide a larger amount of data from Indiana teachers to add to research on the topic of teacher retention and recruitment. Please understand that I am not asking for any undue pressure to be placed on your members to participate but your assistance with notification and encouragement is appreciated.

If you have questions or concerns about the survey or the study, you may contact me at (812) 621-7220 or at tjohnson24@sycamores.indstate.edu. If you have questions rights of participants, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or by email at irb@indstate.edu.

The survey will be available from *date* to *date* at
https://indstate.qualtrics.com/SE/?SID=SV_8vt8LxwFxVUKH0F.

Sincerely,
Tricia Johnson
Principal Investigator