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PREDICATIBLITY OF TEACHER RETENTION IN MONTANA'S RURAL ELEMENTARY SCHOOLS

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By

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Predictability of Teacher Retention in Montana's Rural Elementary

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The purpose of this research was to examine what factors predict teacher retention in Montana's rural elementary schools. Montana has a higher percentage of small rural school districts than any other state in the nation (Johnson, Showalter, Klein, & Lester, 2014), and the Montana Legislature has been at a disadvantage by having insufficient information with respect to retaining teachers in Montana's rural elementary schools (Access, 2008).

This mixed methods study was designed to determine the extent to which factors associated with three C's: characteristics, conditions and compensation (Sher, 1983) predict teacher retention in Montana's rural elementary schools. For phase one of this research, the quantitative portion, the entire population of Montana's rural elementary school teachers who were under the supervision of a Montana County Superintendent were recruited to be part of the study. For phase two of the research, the qualitative phase, those who indicated at the end of the first phase a willingness to participate in the second phase were directed to additional open-ended qualitative questions. Overall, there were 188 rural teachers who were invited to be part of this research and 137 competed the on-line survey yielding a return rate of 73%.

The findings from this research placed attention towards better preparation of pre-service teachers in Montana's colleges and universities, in addition to implementation new Montana teacher policy that addresses salaries, a statewide salary schedule, medical insurance, and housing. Better preparation and new policies would ensure that the children of Montana learn from teachers who understand rural Montana life, assimilate into the rural school culture, can earn a living wage, have access to medical benefits and have availability affordable housing.

Dedication

This dissertation is dedicated to my daughters, Hayden and Hattie, whom I love unconditionally and who have taught me to work hard for the things that I aspire to achieve. You are my life and I love you.

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I wish to thank my committee members who were more than kind with their expertise and precious time. Thank you Dr. John Matt, Dr. W, Dr. William McCaw, Dr. Frances

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Chapter One

Introduction to the Study

Rural schools across the nation face distinct challenges retaining teachers in an increasingly competitive market (Arnold, Godday, & Dean, 2004). Ensuring that these rural classrooms are staffed with teachers who work to maximize each child's education requires an understanding of how rural teachers are retained (Ingersoll, 2007). Specifically, rural schools in Montana, Alaska and Idaho, face additional challenges retaining teachers because of each state's geographical size and the rural schools' distance from larger communities (Collins, 1999; Geringer, 2000).

Brief Legal History of Montana K-12 Education

Article X, Section 1 of the Montana Constitution provides, "it is the goal of the people to establish a system of education which will develop the full educational potential of each person. Equality of educational opportunity is guaranteed to each person of the state" (Mont. Const., art. X, § 10 (1972). This constitutional language is the foundation of K-12 education in Montana, and at the same time, has been the cause of litigation in the state. Over the past forty years, the courts have highlighted the inability of Montana's rural schools to provide equal educational opportunity through attracting and retaining highly qualified teachers (*Columbia Falls Elem. Sch. Dist. No. 6 v. State*, 2005 MT 69, 326 Mont. 304, 109 P.3d 257 (2005)).

Litigation focusing on equal education opportunity began in 1985. In 1985, Helena Elementary School District No. 1 filed a lawsuit against the State of Montana seeking a declaration that Montana's system of public school financing violated the Montana Constitution (*Helena Elem. Sch. Dist. No. 1 v. State*, 236 Mont. 44, 769, P.2d

684 (1989)). The Montana Supreme Court affirmed First Judicial District Court Judge Loble's decision concluding, “The State has failed to provide a system of quality public education granting to each student the equality of educational opportunity," and, "the spending disparities among the State's schools translate into a denial of equality of educational opportunity" (*Helena Elem. Sch. Dist. No. 1 v. State*, 236 Mont. 44, 55, 769, P.2d 684, 690 (1989)).

Following the Montana Supreme Court’s decision, nearly 20 years later, in 2002, the Montana Quality Education Coalition, MQEC, an alliance of schools, education groups and parents, filed a lawsuit against the State of Montana. One of the key components of this lawsuit alleged that a decline in state funding for Montana's K-12 schools had caused districts to struggle with the ability to retain teachers. Specifically, Montana's "retention problems appear to be concentrated in districts that are rural and isolated" (*Columbia Falls Elem. Sch. Dist. No. 6 v. State*, 2005 MT 69, 326 Mont. 304, 109 P.3d 257 (2005)). In 2005, the Montana Supreme Court emphatically highlighted the State's failure to meet its constitutional mandate to provide an adequate education by listing "unchallenged findings" from Judge Sherlock's decision. One of these "unchallenged findings" stated that Montana struggles to retain teachers throughout the state because many qualified educators leave Montana for higher salaries and benefits offered in other states (*Columbia Falls Elem. Sch. Dist. No. 6 v. State*, 2005 MT 69, ¶ 29, 326 Mont. 304, 109 P.3d 257 (2005)). The Montana Supreme Court also determined that the Legislature must define the educationally relevant components of a basic system of a free quality public elementary and secondary schools, determine the costs of delivering the resources required by that system and develop a legal funding formula to govern

Montana's share of schools' resources (Montana Office of Public Instruction [OPI], 2005).

In response, the Montana Legislature passed Senate Bill 152, codified at Mont. Code Ann. § 20-9-309, *et al*. The Legislature defined a quality public elementary and secondary school system. The statutory definition of quality education included eight components, with one of the components being "qualified and effective teachers/administrators," Mont. Code Ann. § 20-9-309(3)(f) (Wood, Robson, & Farrier, 2005).

Following the 2007 legislative session, the MQEC renewed a motion before Judge Sherlock, requesting supplemental monetary relief. Judge Sherlock denied the MQEC's motion but noted Montana should address with greater sufficiency rural and isolated school district's ability to retain teachers (Columbia Falls Elementary School Dist v. State, 2008, Judge Sherlock). The 2013 legislative session resulted in an increase in the basic payment and per student entitlement but still failed to address the problems associated with retaining teachers in Montana's rural schools (OPI, 2013a).

Problem Statement

Teachers are the most important school-level influence in a student's learning, and students in high-poverty, low-performing schools are often those for whom a consistent teacher matters the most. Students who do not have access to classroom consistency and stability will continue to fall behind their peers, widening the persistent achievement gap between the "haves" and the "have-nots" in public education (Kowal, Hassel, & Hassel, 2008).

In a study conducted over 60 years ago, over 40% of school board leaders surveyed thought teacher retention was the most serious challenge facing public schools in the United States (McGuinn, 1957). In 2000 Bob Chase, President of the National Education Association (NEA), wrote: "NEA members know that high staff turnover has devastating consequences for children. Research shows that the single most important factor in a child's education is the quality of his or her teacher" (p. 5). Teacher retention continues to be one of the main problems facing our rural schools (Ingersoll & Perda, 2013; Tai, Liu, & Fan, 2007). Rural schools have had to compete constantly with larger schools in the same state for the same teachers (The Southeast Center for Educational Quality, 2004). In essence, rural schools have functioned merely as "spring boards" (Wolk, 2001) to larger non-rural schools.

According to the Rural School and Community Trust's report, “Why Rural Matters 2013-2014: The Condition of Rural Education in the 50 States,” and the National Center for Educational Statistics [NCES], Montana has a higher percentage of small rural school districts than any other state in the nation. Specifically, 96.1% of the school districts are considered "small rural school districts.” By definition, this means that 96.1% of Montana school districts fall below the median enrollment size of 533 students nationally (Johnson, Showalter, Klein, & Lester, 2014).

Within Montana, five of the state's 56 counties account for half of the state's public school enrollment, and the remaining 51 counties have a combined student enrollment of 70,075 (OPI, 2014a). That is almost 10,000 students less than the 81,078 students enrolled in Denver Public Schools (Denver Public Schools, 2013).

Teachers departing the profession or movement to another district are both a costly phenomena for the students who lose the opportunity of being educated by an experienced teacher and the district that must recruit and train a replacement (Boyd, Lankford, Loeb, & Wyckof, 2005). A conservative estimate of the cost of replacing teachers is roughly 7 billion a year, and Tom Carroll, President of the National Commission on Teaching and American's Future stated, "There is this idea that we can solve the teaching shortage with recruitment (when) what we really have is a retention crisis" (Kopsowski, 2008).

Rural schools in Montana are at a greater disadvantage than Montana's non-rural schools because they have less money available for putting incentives in place to retain teachers, which has left them unable to compete with larger, but also underfunded counterparts, within the state (Teacher Training and Resources, 2010); thus creating an opportunity gap between rural and non-rural school districts. Addressing rural retention problems connected to Montana's rural schools should be a state priority (OPI, 2005).

Research Question

The question that guided this research was: What factors predict teacher retention in Montana's rural elementary schools?

Purpose of the Research

Louis V. Gerstner, Jr., former Chairman and CEO of IBM said that if we don't step up to the challenge of finding and supporting the best teachers, we'll undermine everything else we are trying to do to improve our schools. This decision would threaten our economic strength, political fabric, and stability as a nation. It's exactly that clear cut (Teaching Commission, 2004).

There is a general shortage of research regarding rural schools (Arnold, Newman, Gaddy & Dean, 2005). Policy analyst Lorna Jimerson, of the Rural School and Community Trust, confirmed that rural-specific information is sparse and commented that additional research on successful retention practices for rural schools is sorely needed (2004). Research, as it pertains to teacher retention in Montana's rural schools, is even sparser. The purpose of this research was to examine what factors predict teacher retention in Montana's rural elementary schools.

Significance of the Research

Research related to student success has helped convince policymakers and business leaders of what parents have always known, teachers make the most difference in student achievement (Ronfeldt, Loeb & Wycokff, 2013). Retaining teachers is critical to the future success of Montana's rural schools if Montana is going to provide educational opportunity for each student, regardless of where the student lives (Access, 2008).

Understanding the factors that predict teacher retention in Montana's rural elementary schools, from the perspective of Montana's current rural elementary school teachers, provides the insight necessary to implement successful strategies to retain teachers in Montana's rural elementary schools. Understanding what current rural elementary school teachers in Montana believe with respect to retention offers a rich, relevant perspective that is authentic to Montana. Furthermore, identifying the factors that predict teacher retention in Montana's rural elementary schools provides Montanans with actual insight to improve policies to increase retention. An understanding of the factors that predict teacher retention in Montana's rural elementary schools also assists

rural school administration, the Small Schools Alliance, and the Montana Legislature in improving teacher retention rates while providing education for all Montana students that is equitable (Access, 2008).

Definition of Terms

For the purpose of this study, terms are defined as follows:

Educational leaders. Superintendents, assistant superintendents, principals, assistant or vice principals, teacher leaders, community leaders and higher education leaders (DuFour, DuFour, Eaker & Karhanek, 2010).

Hard-to-staff schools. Schools located in rural areas (Kowal et al., 2008).

Hometown. A teacher's hometown is identified as the town in which he or she spent the most years K-12.

Mentoring. Pairing an experienced teacher with a novice teacher for the purpose of support and guidance (Danielson, 2002).

Induction. Refers to a structured process of teacher learning, conducted on-the-job, where novices are prepared in stages over the first few years of teaching (Berry, Hopkins-Thompson, & Hoke, 2002).

Montana school district. The territory… organized under the provisions of Mont. Code Ann. § 20-6-101 to provide public educational services under the jurisdiction of the trustees prescribed by the same title, in this case grades K-12 (McCulloch, 2005).

Percent rural schools. The percentage of regular elementary and secondary public schools designated as rural by NCES. The national average for the percentage of rural schools across the United States is just under 33%, but states vary considerably

from a low of 6.5% in Massachusetts to a high of 75.3% in Montana (Johnson et al., 2014).

Percent small rural schools districts. The percentage of rural schools districts that are below the median enrollment size for all rural schools districts in the United States (median = 533 students). Montana has a higher percentage of small rural school districts than any other state at 96.1% with the national average being 50% (Johnson et al., 2014).

Montana Rural elementary school. A rural elementary school will be defined as an elementary school district and grades K-8 of a K-12 school district in Montana for the 2014-2015 school year without a building principal or superintendent. For administrative purposes, these districts fall under the supervision of a Montana County Superintendent. In the state of Montana, every school district that does not have a building level administrator hired by the district falls under the supervision of a county superintendent. See Appendix A for a complete list of all rural elementary schools that will be part of this study.

Limitations

The surveys from phase one and open-ended questions from phase two had natural limitations. Since this research sampled the entire population, generalizing back to all of Montana's rural elementary schools was not a limitation; however, this study was limited in that it can only be generalized to Montana's rural schools. Information learned is applicable only to Montana due to its unique ruralness. Second, in this research specific questions are asked using factors found in the existing research with regard to teacher retention. Factors that predict teacher retention in Montana's rural

elementary schools may include other causes not explored in this research. The final limitation is that this research is only a reflection of those who participate in the study. This study was limited by the teachers who do not give consent to participate, or submit incomplete quantitative data from phase one or choose not to participate in phase two.

Delimitations

Although retaining teachers in rural locations remains a concern across the nation (Elfers & Plecki, 2006), this dissertation was delimited to only include rural elementary teachers in Montana in order to address the specific needs of retaining teachers in Montana's rural elementary schools. This research had two phases, and both were voluntary, and both sought involvement of Montana's entire rural elementary teaching population.

A delimitation of the study was the researchers' decision to study only the elementary portion of the K-12 teaching population. The focus on Montana's rural elementary school teachers, instead of all Montana rural teachers, was due to the State's recent financial commitment to provide educational opportunities to Montana's high school students through the Montana Digital Academy (MTDA).

Another delimitation of the study was the researcher's decision to keep the research focused within Montana. In the past, the courts have highlighted the inability of Montana's rural schools to retain teachers (Columbia Falls Elementary School Dist v. State, 2005 Judge Sherlock), and research specific to Montana helped to identify a set of variables predicted to increase rural school retention explicitly for Montana.

It is worth noting that this study did not delimit itself to a sample of Montana's rural elementary teachers. The researcher chose to invite all of Montana's rural elementary school teachers to be part of this study.

Summary

To this point, the Montana Legislature has been at a disadvantage by having insufficient information with respect to retaining teachers in Montana's rural elementary schools (Access, 2008). Understanding the factors that predict retention will be beneficial to the State of Montana's educational system as a whole. This research will be instrumental to both the common welfare of Montana as well as the individual good of Montana's students insofar as education is the foundation of a healthy and vigorous state and improves the lives of Montana's youth.

Chapter Two

Review of the Literature

The positive effects a teacher can have on a child are long-lasting (Rice, 2003), the positive effects depend, in large measure, upon consistent years within the school (Ingersoll, 2001a, 2001b; Ingersoll & Merrill, 2010). Studies have also shown that teacher turnover is disruptive to the school's educational process (Edgar & Pair, 2005; Ingersoll, 2003; Ingersoll & Smith, 2003), and studies have warned that increasing teacher retention will not be resolved by simply increasing the supply of teachers. We must understand what is necessary to keep the teachers we have in the classroom (Darling-Hammond, 2003; Ingersoll & Smith, 2003).

According to Ingersoll and Merrill (2010), there has been intense growth in the amount of newly hired, first-year teachers over past two decades. During the 1987–1988 school year there were approximately 50,000 new hires compared to 200,000 during the 2007–2008 school year. In the late 1980s, the standard teacher had 15 years of classroom teaching experience; by 2008, the normal teacher was a beginner in his or her first year of teaching. Moreover, data indicates that the attrition rates of first-year teachers, now the largest group within the teaching profession, have slightly grown over the past two decades.

Ingersoll (2003, 2007) found teacher turnover to be one of the most pressing problems facing rural schools across the nation where many new teachers receive their first few years of experience in small rural schools before moving to larger schools as experienced teachers. For many years, small rural schools have served as apprenticeship centers for larger non-rural schools. Additionally, Monk (2007) pointed out that the

overall quality of life in the rural community is lacking, working conditions are poor, student needs are great, support services for schools are limited, and professional school support systems are inadequate.

Why Rural Matters, a series of seven biannual reports published by The Rural School and Community Trust, analyzed the circumstances of rural education in all 50 states over the years using data from the NCES, US Census Bureau, and New American Foundation. According to these reports, Montana and a dozen other states across the nation stand out as needing immediate rural education policy attention (Beeson & Strange, 2000, 2003; Johnson & Strange, 2007, 2009; Johnson et al., 2014).

Understanding the Ruralness of Montana

Montana is unique in that a school system can be comprised one of two ways. The first is when a K-12 school district is the school system, and the other is when an elementary district and high school district are combined to form a school system. In either case, the school system is led by a common administrator and governed by a common school board. Often, other outlying elementary school districts flow into a larger school system to attend high school. For example, Missoula Elementary School District and Missoula High School District are two separate school districts that combine to form one school system. Students from Missoula Elementary School District and nine other "feeder" elementary school districts flow into Missoula High School District after 8th grade. Each of the nine feeder districts is their own school system with their own administration and governing school board.

In the most recent publication of *Why Rural Matters* by The Rural School and Community Trust, Montana is ranked as the most rural state in the nation with 96.1% of

its public school districts below the national median district enrollment size of 533 students (Johnson et al., 2014). The extreme rural nature of Montana's schools, as a result of a few pockets of populated counties, makes it difficult for researchers generalize national findings back to Montana.

In a report prepared by Augenblick, Palaich, and Associates, Inc., (APA), (2002) and their follow-up study conducted in 2006, Montana schools were divided into four size groups: small district (under 500 students), moderate district (500-1200 students), large district (1201 to 3000 students), and very large district (over 3000 students) (Silverstein, Rose, Palaich, Meyers, & Brown, 2007). The groups used by APA research were not an accurate depiction of Montana's student population because over 90% of Montana's districts in 2007 were "small." Furthermore, APA used the four groups listed above as the foundation for Montana K-12 educational funding recommendations to the Montana Legislature. Thus, the findings found in their professional judgment approaches in 2002 and 2006 (Silverstein et. al., 2007) misrepresent the cost of educating a K-12 student in Montana.

APA has conducted similar pieces of research in Nevada, Colorado, and Pennsylvania using a similar approach. In fact, what APA defined as a "large district" in Montana was "small" in Nevada and Pennsylvania (Augenblick, Palaich, & Associates, 2006, 2007), and in the Colorado's first stage of the school finance project, APA did not use any data from schools with less than 1500 students (Augenblick et al., 2010). Unfortunately, misinterpretations are made when conclusions do not accurately represent the unique demographics of Montana; thus the need to give an accurate representation of Montana's extreme rural nature.

Retention of Rural Teacher Framework

A review of the literature explored what has been found with regard to retaining teachers in Montana's rural schools through a framework developed over 30 years ago by Dr. Jonathan P. Sher, a graduate of Harvard University's School of Education. In the Retention of Rural Teacher Framework, "RRTF," Sher (1983) stated that attracting and keeping teachers in rural schools is a function of the three C's: characteristics, conditions, and compensation. According to Sher (1983), characteristics refer to background information as it pertains to the teacher, conditions include both the environmental surroundings as well as the working environment in the school, and compensation includes salary and benefits. For the purpose of this research, any subcategory of the three C's will be referred to as a factor.

In other pieces of related research, Stone (1990) found that a number of barriers appear to limit a rural school's ability to retain certified teachers. Similar to Stone's research from the 1990, Lui (2007) identified, from other researchers, two strands of research on teacher attrition. The first strand focused on teacher factors such as teacher demographics, teacher characteristics, and salary. The second strand focused on environmental factors such as characteristics of the school, how it is governed, and working conditions.

Characteristics

The first C, characteristics, include age, gender, marital status, children, location of college or university attended for teacher training and degree earned. These characteristics have been studied throughout the research with regard to retaining teachers in rural locations (Johnson, Berg & Donaldson, 2005). Having a rural

background is also a factor found to boost the probability of a teacher being initially attracted to work in a rural school and then staying in a rural school for multiple years (Barley, 2009; Davis, 2002; Hare & Heap, 2001; Lui, 2007).

Background.

Researchers agree that teachers who stay in rural schools are often born and raised in rural locations. In addition, the teacher also most likely to be attracted to a rural school attended a small college or university (Boylan & McSwan, 1998); however, often these teachers are hard to find due to low college graduation rates from students who attended rural schools (Gibbs, 2000; Monk, 2007).

According to a 1989 study conducted by Schmuck and Schmuck in which they interviewed 25 rural school superintendents, 90% of these administrators had been raised in communities very close to where they were currently working. A more recent study conducted by Boyd et al. (2005) supported the findings of Schmuck and Schmuck (1989) that teachers prefer to teach near their hometowns. Specifically, 61% of incoming teachers in the state of New York from 1999 to 2002 began teaching within fifteen miles of their hometown and 85% started teaching within forty miles of their hometown (Boyd et al., 2005). Reininger (2006) found, in a study with teachers from around the nation, teachers are much more likely to work within 20 miles of their hometown eight years after graduating from college than are workers in almost forty other professions.

Another way to help solve the problems associated with teacher retention is to use a "grow-your-own" strategy (Boyd et al., 2005; Davis, 2002; Hare & Heap, 2001; US Department of Education Initiative on Teaching, 2000). The Schwartzbeck and Prince (2003) study recommended specific strategies for recruiting teachers to rural schools.

This study surveyed 818 rural superintendents and found that two of the top four recruitment strategies were: recruiting teachers from the local population (72%) and recruiting from the substitute teacher list (63%). The general idea supports taking advantage of a high school student's desires to return home to teach by nurturing interest and skills, during his or her high school years (Boyd et al., 2005; Kowal et al., 2008).

A different approach to the "grow-your-own" strategy involves training paraprofessionals who already live in the community, work for the local rural school, and aspire to become teachers (Clewell & Villegas, 2001; Eubanks, 2001; Schwartzbeck & Prince, 2003). Clewell and Villagas (2001) stated that paraprofessionals who are currently working in rural schools are more likely to continue teaching in high-need areas.

This research study will determine if background is an influencing factor for teachers who are initially attracted to and then stay to teach in Montana's rural elementary schools. Gathering background data from Montana's current rural elementary school teachers may indicate to Montana's rural communities to "grow their own" teachers because the teachers are likely to return to teach in or near their hometown or a similar Montana rural elementary school.

Age.

Age is also an important factor to study when researching teacher retention (Adams & Dial, 1993). Using data from the NCES School Staffing Survey, Richard Ingersoll (2001a) concluded that teachers who were under 30 or over 50 were found to leave the teaching profession at higher rates than teachers in the 30-49 year old range, and teachers under the age of 30 leave the profession at a higher rate than teachers over

50 years of age (Ingersoll, 2001a). Stern (1994) indicated that teachers in rural schools were younger, less educated and received lower pay and benefits than counterparts in non-rural schools. Thus, younger teachers leave rural schools at a higher rate than older teachers who are nearing the age of retirement (Adams & Dial, 1993; Ingersoll, 2001b).

Not only are teachers in rural schools younger, but they also are less experienced (Reichardt, 2002). In fact, more teachers had three or fewer years of teaching experience in rural communities than teachers who taught in non-rural areas, and teachers with four or less years of experience were the most likely to leave rural schools to take teaching positions in larger districts (Strizek et al., 2006).

According to Kowel, Hassel and Hassel (2008), schools are considered "hard-to-staff" simply because they are located in isolated rural areas. Students in hard-to-staff schools are often considered the most in need of an education from experienced master teachers, yet research shows that these students are the most under-served by public education (Education Commission of the States, 2009). Children who go to school in hard-to-staff schools tend to live in poverty and are more likely to be educated by young, new, unequipped and less effective teachers (Charles, Clotfelter, Ladd, Vigdor, & Diaz, 2004). These hard-to-staff rural schools also suffer from high teacher attrition because the younger, better-educated, and more upwardly mobile people leave and the others are left in a "sink or swim" position due to a lack of support and professional isolation (Darling-Hammond & Sclan, 1996). They leave rural communities almost as quickly as they arrive (Barley, 2009; Education Week, 2000).

The American Association of School Administrators recognized the ability to keep teachers as the central problem facing rural schools. The overall teaching

experience is restricted in rural schools because new teachers may take a position in a rural school for short time (McClure, Redfield, & Hammer, 2003). This is a disturbing finding given that teacher experience is one of the most important predictors of teaching effectiveness (Rockoff, 2004; Schwartzbeck & Prince, 2003).

Teacher comments from Guin's qualitative research provide insight to the frustrations felt by rural teachers who have stayed in their rural school. Specifically, "We are constantly reinventing the wheel. And for those of us that stay, it drains our energy. You know you can't constantly be starting over. It leads to burnout" (Guin, 2004, p. 13). "I really feel it takes you a year to teach at a new location… If you are always faced with new teachers you will always have a school on the edge" (Guin, 2004, p. 15). Therefore, "When you have a stable environment, the kids can let their guard down… They can come here and have a sense of calm" (Guin, 2004, p. 11). This study will evaluate if age is a determining factor for teachers who stay to teach in Montana's rural elementary schools.

Sex.

Sher (1983) proposed that sex could also be a predictive factor of retention rates in rural schools, but the research on which sex (male or female) is more likely to stay varies. When looking at teachers who taught at all grade levels and in all subjects, Ingersoll (2001b) found that female teachers were most likely to leave rural schools. However, Marlow and Inman (1993) found that single men who taught in high schools were most likely to leave rural schools, and overall there were more women teaching at the elementary level. Even earlier than Ingersoll or Marlow and Inman's studies, Heyns

(1988) found that the highest attrition rates occurred in high schools, and that men were slightly more likely than women to leave teaching.

According to the NEA (2013), over 75% of all public school teachers are female. This research will seek to determine if there is a significant difference among gender retention rates in Montana's rural elementary schools with the understanding that a there is a larger percentage of females in the profession.

Marital status.

Murphy and Angelskin (1997) suggested that rural administrators should hire married couples to teach within the district because it increases the possibility that they will stay. Bornfield, Hall, Hall, and Hoover (1997) specifically stated that rural special education teachers who stayed at schools in rural locations did so because of responsibilities to a spouse or elderly parents, and not because they were necessarily satisfied with their current teaching position. A study from 1992 concluded that one of the main reasons teachers in rural British Columbia accepted jobs in rural locations was due to their spouse's job in the community (Storey, 1992). Another study on teacher mobility in British Columbia found that teachers stay in rural schools simply because a spouse is employed in the rural community, and there is satisfaction with the rural lifestyle (Murphy & Angelski, 1997).

Teachers who work in rural schools often times receive smaller paychecks, have limited social and cultural opportunities, often experience difficulty finding affordable housing, and find fewer job opportunities for spouses (Collins, 1999). Issues such as employment opportunities for married couples, expenses, and the "hidden costs" of rural living are a major cause for concern (McClure et al., 2003). If rural communities do not

have a way of providing employment for married couples, then isolated rural communities will continue to experience a decline in population (Harmon, 2003).

This study, specific to teachers in Montana's rural elementary schools, will determine if marital status and a spouse's employment (if applicable) are significant factors when looking at retention of elementary teachers in Montana's rural schools. This is an important factor since non-rural areas continue to have greater opportunities for the spouse of a teacher to find employment (McClure et al., 2003).

Educational preparation, attainment, and certification.

Many new teachers believe that they are not fully ready to begin their careers due to the lack of education in teacher preparation programs (Ingersoll, 2003, 2007). Brown (2002) found that new teachers, regardless of school size, feel a tremendous pressure to perform during their first year, and many find the responsibilities of their own classroom to be very different from student teaching.

Furthermore, the geographical, social, and professional isolation that new teachers in rural schools experience can be even more overwhelming if they have not been prepared to teach in rural areas (Wright & Osborne, 2007). Stern (1994) believed that knowing what to expect from the nature of rural communities ahead of time helps newly hired teachers in rural areas survive and thrive. The positive aspects of rural placements must also be marketed. Wright and Osborne (2007) found that many pre-service teachers appreciate learning the art of teaching and experiencing the classroom in small environments where they feel safe.

It is often difficult to select teachers for rural areas (Lyons, Cooksey, Panizzon, Parnell & Pegg, 2006), and attracting pre-service teachers to rural schools has presented

many challenges for education departments for years (Collins, 1999). Understanding that the majority of rural school teachers have rural backgrounds is just as significant as learning where these teachers attended college, and both are important factors in determining which teachers will make a career as a rural elementary school teacher (Storey, 1992). If pre-service teachers are initially attracted to teach in a rural school, then another problem arises within a few years; how do these schools retain these newer teachers (McClure et. al, 2003).

Beckner (1996) and Haberman (1996) concluded teacher preparation programs in colleges and universities did not prepare teachers to teach in rural locations. Specifically, Lahern describes a series of required courses related specifically to rural education offered at The University of Montana-Western in Dillon, MT in order to increase the probabilities of recruiting and retaining teachers in Montana's rural areas (1983).

Detailed training is needed to prepare teachers to work in Montana's rural elementary schools (Lahren, 1983); Quartz (2003) believed that similarly customized preparation is necessary for teaching in hard-to-staff schools. Hudson and Hudson (2008) stated that, "Instilling confidence and empowering pre-service teachers to teach and live in rural areas requires first-hand experiences" (p. 74). This article also suggested that universities should create programs to introduce pre-service teachers to rural education and living.

Jack Crews (2002), Lake Havasu City, AZ superintendent, took a proactive tactic to recruit teachers to his district. Student teaching opportunities in Lake Havasu were made available to the teacher education programs at universities in Utah and Montana. Crews noted that his ability to recruit and hire these teachers was to have face-to-face

contact with them. Research conducted on the teacher preparation for schools located in rural areas is bleak at best, but we do know from past research that it is a very important component for retaining teachers in rural areas.

Current state policies provide few incentives for institutions of higher education to develop customized programs, support clinical internships, and encourage student teachers in hard-to-staff schools (Berry & Hirsch, 2007). Monk (2007) noted that rural schools have a below-average share of highly qualified teachers, and the additional costs associated with preparing teachers to teach in remote rural settings should be overshadowed by the benefits of increased rural high school education rates from more prepared consistent teachers in the classroom as cited in Hare and Heap (2001).

The existing research supports that effective teacher preparation programs can play a positive role in helping newly trained teachers work in rural schools (Berry & Hirsch, 2007; Hare & Heap, 2001; Hudson & Hudson, 2008; and Monk, 2007); therefore, it is important to explore the extent to which teachers feel that they were prepared to teach in Montana's rural schools (Lahren, 1983).

As stated by the US Department of Education's annual report on teacher quality, teachers employed to teach in hard-to-staff schools are less likely to be fully endorsed and are more likely to be teaching with provisional licenses (2004). The Center for Teaching Quality reported that during the 2005-2006 school year, over 70% of the survey respondents from rural schools' new hires entered through their state's alternative certification program (2006).

Almost every state has alternative routes into the profession, but the quality and duration of preparation through those routes varies dramatically, even within states

(Education Week, 2004). Some states, such as California, Colorado, New Jersey, and Texas have tried to overcome the shortage of traditionally prepared teachers willing to teach in hard-to-staff schools by making it easier to fill classrooms with teachers who begin their career through alternate certification routes. These states rely so significantly on these alternative routes that they are now the primary means of preparing teachers (Berry & Hirsch, 2007). According to Neilson (2001, 2002), smaller rural schools in Montana have a higher number of openings compared to non-rural schools in Montana. Rural schools in Montana have difficultly filling vacancies and must rely on provisional endorsements to fill positions.

Rural schools are also faced with teachers who are not highly qualified. While the definition for highly qualified according to the No Child Left Behind Act has been around since 2002, out-of-field teaching is not new. James Conant, former president of Harvard University, brought attention to the extensive mismanagement of teachers through out of-field assignments in his landmark 1963 study *The Education of American Teachers* (Ingersoll, 1999). The difference between rural and non-rural teachers is that the textbook rural teacher is certified to teach in more than one area, can teach multiple grades or multiple subjects in the same classroom, supervises extracurricular activities and has additional duties beyond the scope of classroom teaching (Lemke, 1994; Stone, 1990).

Monk (2007) stated that other researchers consistently find that teachers in rural areas also have comparatively low educational attainment, and teachers who have earned graduate degrees within the prior two years are the most likely to leave the rural school (Boe, Bobbitt, Cook, Whitener, & Weber, 1997). Robert Gibbs's findings affirmed that

only about a third of rural teachers have graduate degrees, while nearly half of non-rural teachers do (2000).

If teachers with graduate degrees leave rural schools after a short period of employment, it is reasonable that administrators would tend to prefer hiring teachers without advanced degrees with the hopes that they would stay in the district longer than those with more education (Harris & Saas, 2007). This study would determine if the location of higher education preparation, the type of preparation and certification are determining factors that predict a rural school teacher's intent to stay or leave.

Conditions

The second C, conditions, is divided into two parts: working conditions and environmental conditions (Sher, 1983). Rural schools experience difficulty finding teachers who are willing to relocate to rural geographic areas due to working and environmental conditions (McClure et al., 2003; Schwartzbeck & Prince, 2003). Working conditions such as teaching in a multi-grade classroom, mentoring programs, and support from the community, administration and parents are all factors that have been found to influence teacher retention rates (Berry & Hirsh, 2007). Environmental conditions such as cultural, housing, and social facilities are factors that also may be predictive of the retention of teachers in rural schools (Hare & Heap, 2001; Hammer, Hughes, McClure, Reeves, & Salgado, 2005; Harmon, 2003; Schwartzbeck & Prince, 2003; Stone, 1990).

Working conditions.

Teaching, especially for those entering the profession, has been characterized as a profession with high levels of attrition (Hanushek, Kain, Rivkin, 2004). During 2008-

2009, teacher attrition for full-time teachers across the United States was 15% compared to 16% for all rural teachers (NCES, 2010), and many schools, regardless of location or school size, experience a 50% turnover over the course of three years (Allensworth, Ponisciak, & Mazzeo; 2009). Certain changes are necessary otherwise teaching will continue to be a "revolving door profession," in which teachers depart teaching long before retirement (Ingersoll, 2004). The teaching profession is like a "bucket rapidly losing water because of holes in the bottom. Pouring more water into the bucket will not be the answer if the holes are not first patched" (Ingersoll, 2003, p. 17).

Ingersoll (2001b, 2003) contended that working conditions play a large part in a teacher's decision to leave a school. Many factors associated with working conditions are cited as the reason teachers leave the educational field (Charlotte Advocates for Education, 2004; Leukens, Lyter, Fox, & Chandler, 2004; Seifert & Kurtz, 1983). These factors include classroom isolation, lack of essential materials and resources necessary to do their jobs, and being overwhelmed with the amount of classroom preparation (Berry & Hirsch, 2007). Specific to rural schools, the Abel and Sewell (1999) quality study indicated through a regression analysis that poor working conditions were most predictive of rural teacher burnout, and the best and the brightest teachers appear to be those who are most likely to leave (Henke & Chen, 2000). "The bottom line is if working conditions do not improve, education will not improve" (Fine, 2002, p. 3).

Facilities and resources.

According to the Center for Teaching Quality, rural teachers reported being isolated in their classrooms, needing additional basic materials to do their jobs, and feeling flooded with work (Berry & Hirsch, 2007). Consistent with Newmann, King, and

Youngs' (2001) study, for schools to become efficient, having the technical resources available to all students and staff is key. Similar to Newmann, King, and Youngs' findings, Amrein-Beardsley (2007) found that expert teachers must be guaranteed adequate support staff, resources, and access to technology. It was also noted that when these teachers thought about teaching in high-needs schools, they became concerned about meeting the resource and technology needs of their students. In short, they would need definite assurances of sustained resource support from the school before teaching in a hard-to-staff school such as those located in a rural area. Jimerson (2004) stated one way for students and teachers to stay current and connected is through adequate technology, but many rural schools are likely to struggle to provide adequate technological resources because of the high cost. Monk's (2007) research reinforces Jimerson's point that having access to modern technology may offset some of the drawbacks associated with teaching in rural areas.

Distance learning programs, online courses, or dual-credit options are ways that some rural high schools are providing learning opportunities for students (Robinson, 2003). Specific to Montana, the Montana Legislature has allocated money during the last three legislative sessions to fund MTDA. The MTDA has created access and educational opportunities to all of Montana's high school students, especially those who attend school in remote parts of the state. MTDA is looking to expand courses into middle and elementary schools in the future, but currently it only caters to needs of Montana high school students (OPI, 2013a).

According to OPI, since its inception during the fall of 2010, the MTDA has provided Montana high school students from across the state with access to high school

and college level courses that were at one time only affordable in larger "non-rural" school (OPI, 2010). MTDA student enrollment has grown from 1,430 in the fall of 2010 to 3,712 in the fall of 2013. The MTDA is expected to grow to 10,000 enrollments annually by 2015. "In Montana's rural schools, the MTDA is providing students with access to elective courses that never have before been available, including World Languages and AP courses" (OPI, 2013a). Because of the increasing commitment to offer on-line classes via MTDA, where Montana certified teachers are teaching students in all parts of the state, there was less of a need to investigate teacher retention in Montana's rural high schools. Thus, the need to concentrate on elementary grades in rural Montana where there are not currently on-line course offerings that are similar in fashion to the MTDA was justified.

According to Monk's research from 1987, curriculum in rural schools has been offered at minimal level. Unequal access to educational opportunities is thought to be a key factor in unequal student educational outcomes (Darling-Hammond 2000; Ingersoll, 2004). The educational opportunities of rural students are lower than non-rural students due to non-equal educational opportunity thus creating what Anderson and Chang (2011) call an opportunity gap. As a result of unequal opportunities in the classroom, many of these rural students do not aspire to continue an education past high school (Gibbs, 2000; Monk, 1987).

The classroom.

Enrollment.

Rural school enrollment has been viewed as both a positive and negative factor. On the positive side, researchers have advocated that an ideal retention strategy is to

highlight the benefits of rural schools such as small class sizes and involvement in the decision making process as a way to keep teachers in rural classrooms (Lemke, 1994, Monk, 2007). Monk also found that smaller class sizes, all else being equal, are an attractive working condition of teaching in rural schools, and smaller class sizes can prompt administrators into making decisions like combining grade levels or functioning with fewer teachers (2007).

On the down side, according to the article, *Recruiting and Retaining High-Quality Teachers in Rural Areas* (McClure et al., 2003), the smaller amount of students, enrolled in rural schools can affect funding stability from year to year, and larger schools with higher enrollments tend to enjoy a cushion against change (Monk, 2007). In areas like special education, mathematics, and science, there tends to be more shortages in rural schools, which suggest that these schools face unique challenges in retaining teachers. In some cases, leaving might not be the choice of a teacher; it might be a shortfall of a district with declining enrollment (Berry & Hirsh, 2007; Monk, 2007; Schwartzbeck & Prince, 2003; Seifert & Kurtz, 1983).

Teaching multiple grade levels.

One study conducted in the southeastern portion of the United States found that as the size of a school district decreases, the number of teachers decreases, and the number of teachers teaching multiple subjects or grade levels increases (Schwartzbeck & Prince, 2003). Beesley, Atwill, Blair, and Barley (2010) stated that rural teacher turnover was greater than urban and suburban schools because teaching certification was needed in more than one area. Often, the need to teach "multiple grades, sometimes in multi-grade,

mixed-age classrooms" complicates some rural teachers' placements (Barley, 2009, p. 10).

Success of high school graduates.

Rural areas produce a relatively low number of college graduates (Monk, 2007). The share of rural students who do not even go to college weakens the ability of rural schools to retain teachers from rural areas because the pool of teaching candidates is low (Gibbs, 2000; Monk, 2007). Gibbs argues that one reason rural students do not transition directly to college the fall after high school graduation is because rural families have lower incomes than non-rural families; thus making it less affordable to send their children to college (2000).

Since rural college graduates are one of the main components in a "grow-your-own" strategy to retain teachers, it is essential that rural students are prepared for college, have the financial ability to earn a college degree, and complete their degree in a timely manner (Hare & Heap, 2001; Thomas B. Fordham Foundation, 1999). Gibbs found that the portion of rural students getting some college education is lower than non-rural students, and when a rural student goes to college, he or she is more likely to attend smaller, less expensive colleges. In addition, parents of rural students are less likely than the parents of non-rural to have a college education (2000). A well-established predictor of student attendance in college is a parent who is college educated (Monk, 2007). Montana is increasing college readiness for rural high school students through a federal grant Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). GEAR UP states that postsecondary education is possible for all Montana students, especially those who attend school in rural locations. This program is "geared" to

educate rural students, parents, teachers and the rural community through college awareness activities, scholarships, financial aid information, and academic support to raise the educational expectations and academic achievement of all of Montana's students (OPI, 2010).

Programs such as GEAR UP may increase the number of college graduates from rural locations and increase the number of individuals who return to their local rural communities. It is estimated that 8800 Montana students, grades 7-12, have already participated in the program. This "grow your own" strategy would support continued emphasis on the number of rural high school graduates that not only attend college, but also complete a college education.

Support for new teachers and teachers in training

The first year of teaching can be especially critical for teachers who are new to a rural community (Hudson & Hudson, 2008; Lemke, 1994). New teachers in rural classrooms may have many daily interactions with their students, but teaching is often done in isolation from other teachers. New teachers in rural locations are often left to the confines of their four classroom walls to survive (Johnson & Birkeland, 2003). Most educational training programs at colleges and universities still train future teachers by giving classroom lectures and expecting their teachers in training to spend large amounts of time with students in real classrooms only during their last semester, commonly known as student teaching (Merrow, 1999).

After university or college preparation is finished, and these new teachers enter the workforce, support programs, also known as induction or mentoring programs, in the past have been less likely to exist in rural schools than in their non-rural or counterparts

(Hare & Heap, 2001). Legislation in Montana now requires all school districts to develop mentoring and induction programs to assist all teachers in meeting standards (OPI, 2013b).

Ingersoll and Kralick (2004) found that effective induction and mentoring programs that "bridge" a new educator from "student of teaching" to "teaching of students" have had the greatest positive impact on teacher retention. For instance, new teachers who have opportunities to observe classes, learn from colleagues, practice teaching, and receive feedback during the first year have been more likely to return to the classroom beyond their first year (Smith & Ingersoll, 2004).

According to Weiss and Weiss (1999), new teachers are assigned to students with great needs in schools with the least amount of resources. Providing support for new teachers in hard-to-staff rural schools presents a challenge since inexperienced teachers currently in the rural classroom are matched with new teachers (Berry & Hirsch, 2007).

Mentorship programs.

There are two programs often referred to when describing the support the school gives new teachers: mentoring and induction. Although some of the literature uses the two terms interchangeably and there seems to be overlap of these programs, mentoring programs are one component in an induction program (Ingersoll & Strong, 2011; Wong, 2004).

Because, many times, new teachers are recruited and hired by the building principal, new teachers look to the principal for direction and leadership (Ingersoll & Kralick, 2004). If the principal is not involved in the mentoring or induction process, new teachers may become frustrated, look for a position in another district, or entirely

leave the profession (Alliance for Excellent Education, 2004). One drawback is that states who have created either mentoring or induction programs for beginning teachers do not mandate local schools to offer the programs or require teachers to participate (Weiss, & Weiss, 1999). In order for mentoring and induction programs to be successful within the school, principals must act as instructional leaders as well as organize and support these programs (Alliance for Excellent Education, 2004; Colley, 2002; Wood, 2005).

The research indicated that the number of teachers who have received mentoring continues to grow each year (Smith & Ingersoll, 2004). Beginning teachers who have been mentored are more effective teachers in their early years since they have had a chance to grow from the guided practice of an experienced teacher rather than depending upon trial-and-error (Weiss & Weiss, 1999). Novice teachers who are mentored also focus on student engagement sooner and leave teaching at lower rates (National Commission on Teaching and America's Future, 1996).

Like any program, a successful mentor program is dependent upon the type of training the mentor receives (Ingersoll & Kralick, 2004). Furthermore, Amrein-Beardsley (2007) stated:

> Expert teachers have strong desires to work with other highly qualified teachers, but they also aspire to work as field-based teacher educators with inexperienced teachers. Many teachers reported that they have long yearned for opportunities to help other teachers professionally and are very frustrated by limited prospects of doing so. In fact, many of the expert teachers who are no longer classroom teachers stated that the chief reason they left the profession was to satisfy their desire to have a have a greater impact on education. Many of these teachers took

> administrative or specialist positions at schools, districts, or state educational agencies. This is unfortunate because the last thing we want to do is give expert teachers reasons to the classroom teaching. (p. 65-66)

Since support programs differ from state to state, it is difficult to compare each program's effectiveness. State policies and funding also make a difference in the kind of support that is provided for mentor teachers (Hare & Heap, 2001).

Although much has been written about new teacher support programs in urban areas, much less is known about rural approaches (Hare & Heap, 2001). One rural study was conducted in the 1990s when Spuhler and Zetler evaluated the Montana Beginning Teacher Support Program (BTSP, 1995). Volunteer mentors, who were not trained or offered release time to meet with mentees, were placed with new Montana teachers for a period of one year. Although the sample size was only around a dozen, the positive effects of being mentored were significant. After two years, 92% the mentored teachers continued teaching, compared to 73% of the non-mentored teachers (BTSP, 1995). Due to the limitations of a small sample size, Spuhler and Zetler did not publish any statistical information (Ingersoll & Kralick, 2004).

One of the recommendations from research conducted by Berry, Rasberry, and William's (2007) research confirmed that there is a need for individual states to investigate different models for presenting new teachers with mentoring and induction support. Support programs are not something that should be developed district by district.

North Central Regional Educational Laboratory sent a survey to superintendents in its seven-state region during the fall of 2001 and found that establishment of school-

university partnerships is much less likely to happen in small and rural schools (Hare & Heap, 2001). Boylan (2004) suggested that colleges and universities located within or close to rural areas are the best places to facilitate these relationships, especially as there has been a decline in pre-service teacher enrollment from students from rural locations (Lyons et al., 2006). The rural teaching crisis needs to be addressed by colleges and universities (Roberts, 2005).

Montana school accreditation has just mandated mentoring program as part of the standards and procedures manual and may look to the neighboring state of Idaho as a model solution by creating a partnership between new teachers and the university system. As part of the University of Idaho's induction program, new teachers are encouraged to sign up for an induction program that is offered as a course at the University of Idaho (National Association of Agricultural Education, 2011).

Professional collaboration.

Professional development opportunities, career advancement, and collaboration with colleagues are three working conditions that may influence a teacher's decision to leave a rural school (Cochran-Smith, 2006; Horn, 1985). According to the statistical analysis report on teacher's job satisfaction, school atmosphere and teacher autonomy were two working conditions that effected job satisfaction (Goldhaber & Brewer, 1997), and the same holds true today. The lack of funding to support the professional collaboration may be a contributing factor of teacher retention (Cochran-Smith, 2006).

Berry and Hirsch (2007) believed that teachers remain in schools when they have time to develop their teaching craft with colleagues. Teachers need working conditions that enable them to be successful. This includes being able to work with other teachers in

professional learning communities rather than in isolation (Cochran-Smith, 2006; DuFour, DuFour, Eaker, & Karhanek, 2010). Teachers, in a study conducted by Amrein-Beardsley (2007), stated that knowing other teachers at their school are kind, united, knowledgeable, and dedicate themselves to helping children learn would be a significant incentive for moving to a high-needs school regardless of location. That is to say experienced teachers want to work with other master teachers, especially when they are facing challenging tasks, and developing avenues is a way for teachers to create these relationships may require networking through technology.

Professional development and career advancement.

Rural teacher turnover is greater in non-rural schools, and the attractiveness of teaching may be less in an area where one perceives a lack of opportunities for professional development and advancement (Horn, 1985; Malhoit, 2005). Many teachers in Montana network through the Montana Comprehensive System of Professional Development, CSPD. This professional development network is divided into five regions across Montana and has the goal of better programs and services for all children and youth (OPI, 2015).

Administrative leadership.

Teachers also leave schools when they do not have sufficient administrative support and have limited influence in decision making (Berry & Hirsch, 2007; Ingersoll, 2001; Liu & Meyer, 2005). According to the statistical analysis report on teacher's job satisfaction, administrative support and leadership were two of the most important working conditions associated with job satisfaction (NCES, 2010). In favor of these findings, a North Carolina study demonstrated that principals play a role in whether

teachers stay because principals may create stress for new teachers when they are ineffective managers, lack organization and planning skills, and provide little to no support (Charlotte Advocates for Education, 2004). Another study in Massachusetts found that dissatisfied educators left current positions in search of new teaching positions where they could have more support from the principal (Johnson & Birkeland, 2003).

In a study conducted by Carroll and Fulton (2004), the top reason teachers cited for leaving a teaching position was a lack of professional support. Rural teachers also reported more satisfaction with their work environments and felt they had greater autonomy and more direct influence over school policy simply because of the smaller size. The bottom line is that teachers value having a voice and feel that being part of the decision making process is important (Liu & Meyer, 2005).

Teachers who teach in high-poverty schools identify poor leadership and lack of decision making authority, more often than salary as critical in their decisions to leave schools (NCES, 2004). In Amrein-Beardsley's (2007) research, when asked to name the factor that discourages them from teaching in a hard-to-staff school, teachers named working under a controlling, uncaring, ineffective, and unsupportive administrator.

Teachers tend to remain in schools where they have strong administrators (Berry & Hirsch, 2007). School administrators can provide professional development opportunities and time for teachers to collaborate. Thus, the strength of the administrator is the defining factor that expert teachers would consider before taking a position in a hard-to-staff school (Berry & Hirsch, 2007).

Environmental conditions.

Sher's Retention of Rural Teacher Framework separates environmental conditions from working conditions and suggests that environmental conditions, such as isolation, although they cannot change, are important influencing factors in the ability of rural schools to retain teachers (1983). According to Stone (1990), isolation factors can be broken down into four areas: social, cultural, geographical, and professional. Hammer et al. (2005) listed geographic and social isolation in addition to being in proximity to higher paying districts as being some of the negative environmental reasons why teachers leave rural schools or are not attracted to rural teaching in the first place. Sher (1983) cited similar negative isolation factors associated with teaching in rural areas such as the lack of cultural activities, housing, and recreational facilities.

In a 1967 report, the National Education Association explained the shortage of teachers as a function of the geographical location of the teaching vacancies. Rural areas that lacked cultural and entertainment activities as well as proximity to a larger town or city had a harder time retaining their teachers (Hare & Heap, 2001). Any environmental isolation can be unappealing to young, beginning teachers (Proffit, Sale, Alexander, & Andrews, 2002), especially since it has been well documented that attrition rates are higher among novice teachers (Ingersoll & Smith, 2003: Lui, 2007; Luekens et al., 2004).

Geographic isolation.

There is no doubt that geography plays an important role in rural school's ability to attract and retain teachers (Jimerson, 2005), and it has been reported that geographically isolated communities tend to have problems in both attracting and retaining teachers (Harmon, 2003; Schwartzbeck & Prince, 2003). In review of the

literature on rural teacher retention, Collins (1999), cited Murphy and Angelski's 1997 survey of teacher mobility in one rural district which found four main environmental reasons why teachers leave communities: (a) geographic isolation, (b) climate/weather, (c) distance from larger communities and family, and (d) inadequate shopping. Another study found that teachers with greater connectedness to the community and access to their family are more likely to remain in rural schools (Bornfield, et. al., 1997).

Collins (1999) found that rural schools located close to suburban areas are often able to attract teachers but tend to lose them after only a few years. It may be that new teachers view these rural areas as attractive places to begin their teaching careers, but soon move to higher paying positions in nearby larger schools. As previously stated, Harris (2001) believed that teachers who stay in geographically isolated rural areas are more likely to have grown up in an isolated community or is somehow committed to living in the rurally isolated area.

Geographically isolated schools present obvious challenges for recruiting and retaining teachers. There are few teachers living in these areas, and schools located in geographically isolated areas can be difficult to reach even for teachers who are willing to commute (American Federation of Teachers, 2007a). A study that surveyed 86 special education teachers in rural states concluded that staying seemed to be a matter of having roots in the community (Bornfield et al., 1997).

Professional isolation.

Unlike schools that are located in non-rural areas, rural schools are seen as an integral part of the community (Ballou & Produsk, 1995; Oliveira, Yellowman-Caye, Zhou, & Chang, 2006). Bull and Hyle (1989) pointed out that some of the environmental

conditions that were reasons for some teachers to stay were the same conditions that influenced some teachers to leave. This study will seek to understand ways that Montana rural elementary schools can neutralize the negative aspects of working in rural locations by accentuating the positive aspects that come with working in rural schools and living in rural communities.

Compensation

Teacher compensation, the third "C," is regarded as one of the most important variables regarding teacher retention (Allegretto, Corcoran & Mishel, 2011; Duttweiler & Hord, 1987; Harmon, 2003; Monk, 2007; Schwartzbeck & Prince, 2003; Seifert, 1982). Sher (1983) found that salary disparities between rural and non-rural teachers in foreign countries did not exist, but the salary gap in the United States averaged 40%. Over thirty years ago, Sher (1983) suggested offering higher salaries to United States teachers in rural schools in order to attract and retain them, and the same recommendation are being made today (Johnson et al., 2014).

Salaries are only one factor of compensation; benefits and other financial incentives are also important to attract and retain teachers (Prince, 2002). Often rural schools cannot offer the financial incentives that surrounding non-rural schools can offer (Berry & Darling-Hammond, 2006). Financial incentives in addition to salary and benefits could include signing bonuses, stipend for becoming National Board Certified, moving assistance, student loan forgiveness, mileage, housing, and tuition assistance (Farrell, 2004; Morton, 2007).

According to US Secretary of State, Arne Duncan (2011), by the end of the decade, more than 50% of the United States 3.2 million teachers are expected to retire,

and this means that we have a once in a lifetime chance to modernize education. This could be an avenue to make a dramatic change in the way we attract and retain teachers (2011). At the top of the list for change is rural teacher compensation. Teacher compensation continues to be viewed as one of the most important variables regarding teacher retention (Duncan, 2011; Guarino, Santibanez & Daley, 2006; Monk, 2007).

In two separate studies, it was found that teachers would transfer or move as salaries in other districts increase relative to their own (Imazeki, 2005; Ondrich, Pas, & Yinger, 2008). In a national survey of rural schools by the National Association of State Boards of Education (2004), the most common challenge reported by 57% of respondents was less competitive salaries.

Over time, lower wages and inadequate benefits have created an adverse effect on the retention rates of teachers (Cockburn, 2000; Gibbs, 2000; Marvel, Lyter, Peltola, Strizek, & Morton, 2006; Monk, 2007). In fact, data from the 2003-2004 Schools and Staffing Survey show that about 14% of the teachers who leave the profession cite wages and benefits as primary factors in their decision to leave (Marvel et al., 2006). Liu and Meyer (2005) also found that low salaries were at the root of teachers' lack of job satisfaction. Although a larger beginning salary may get a new teacher through the door for the first year, an increase in all teaching salaries is essential to help retain teachers across the board and keep them from entering other professional fields (Ingersoll 2007).

A comparison with other occupations.

In 2010, the National Education Association posted, in a web article titled, *Salary Map: New Teacher Pay Lags Behind Comparable Professions*, the average starting salaries of teachers compared to similar occupations. Not only was teaching found to

have the lower starting salary of $34,935 when compared to a starting registered nurse ($51,341) or a beginning accountant ($47,453), but also the salary gap between teaching and related occupations has increased by almost 15% from 1993 to 2010.

Not only are the salaries for beginning teachers lower, the rate at which teachers leave public education is disproportionately higher than the attrition rates for other professions (Liu & Meyer, 2005). Regardless of starting wages or the average income earned, the entire teaching profession has had a history of lagging behind other professional salaries that require similar education (American Federation of Teachers, 2007b).

Making matters tougher, rural communities struggle even more than their non-rural counterparts to retain teachers. Across other professional sectors in rural communities, bonuses and other incentives are used as a means to attract more applicants, increase retention rates and increase staff performance (Kowal et al., 2008).

Salary and benefits.

The effect of teacher salary on a teacher's intent to stay in the classroom has been recognized in previous studies, and many researchers believe raising teaching salaries may reduce attrition and increase job satisfaction (Ingersoll & Smith, 2003; Kelly, 2004; Liu, 2007; Liu & Meyer, 2005; Morton, 2007). In 2005-2006, the rural teacher salary across the country (regardless of years of experience) averaged over $7,000 less than teachers in non-rural locations with the rural teacher earning $42,533 (Educational Research Service, 2006). On average, teacher salaries are lower in rural and small schools than in other areas (Monk, 2007). Ingersoll (2003) found that of those teachers who left their rural teaching assignments, 64% percent of the teachers said that an

increased salary might have encouraged them to stay. Offering higher salaries to rural teachers in order to retain them is essential (Duttweiler & Hord, 1987; Monk, 2007; Prince, 2002).

Like any teaching job, there are good and bad things that come with the position. On one hand, smaller student to teacher ratios, absence of disciplinary problems and greater social unity could prompt potential teaching candidates to accept lower wages (Monk, 2007).

While a teacher may desire to live and work in a rural school, he or she must also be aware of the extrinsic motivators such as salaries and benefits that rural schools offer even if the cost of living is lower (Prince, 2002). Rural school teachers are less likely to be receiving additional compensation for extracurricular work due to limited funds and the share of teachers in rural schools who report having an extra job is higher than the national average with all teaching assignments combined (Monk, 2007).

Financial incentives.

*"*In many states, rural schools are simply at a competitive disadvantage in the market for teachers. There are many factors in this challenge, but lower teacher salaries are certainly among them" (Johnson et al., 2014). Even though many new teachers in rural schools cite "money and professional dissatisfaction as key reasons for leaving the profession" (Goorian, 2000, p. 1), benefits and other financial incentives are also influential (Sher, 1983). The trend of schools offering a financial incentive is increasing, and schools that cannot afford to raise salaries are becoming creative with other financial incentives. School officials in areas such as Denver, New York, and the District of Columbia have been considering "front loading" teacher salaries by increasing

compensation for new teachers (Sawchuk, 2010). Joel Klein, Chancellor of New York City Schools stated, "You want to allocate your money in a way that attracts new talent and rewards excellence" (Sawchuk, 2010). Many of these incentives, like the one mentioned above, are only distributed once, unlike an increase in salary, which impacts the budget for a teacher's entire career with the district. Chandler (2006) reported that financial incentives in some hard-to-staff districts include reduced rent, a break on closing costs if the teacher purchases a home in the same zip code as the district, $100 deposit to start a checking account with a local bank, student loan forgiveness, and tuition assistance.

Teacher compensation in Montana.

The state of Montana is viewed as rural when compared to the rest of the United States, and salary disparities between Montana and the rest of the nation are similar to the salary inequalities of rural and non-rural districts with Montana. According to the NEA (2013), during the 2012-2013 school year, the average starting salary across the United States was $36,141. Of the 50 states, Montana ranked the lowest average starting salary at $27,274; which was over $8,800 less than the national average.

In addition, teacher salaries are lower on average in rural and small schools than in non-rural areas (Monk, 2007), and rural teachers seem to be paid better in states where they represent a small portion of mainly urban teaching force. Thus, Montana's high percentage of rural schools has resulted in poor pay when compared to other larger Montana school districts (Morton, 2007). According to the 2006-2007 Montana Rural Teacher Salary and Benefit Survey, in 111 of the very smallest public schools in Montana, salaries ranged from $13,000 with no health insurance (housing was provided)

for a second year teacher with one student to $53,848 and health insurance for a teacher with 30 years of experience in a school with 146 students (Morton, 2007).

Statewide salary schedule.

Countless teacher exits out of rural schools have been the result of well-organized recruiting efforts conducted by non-rural schools, which include higher salaries and comprehensive benefits (Rebore, 2004). In order for rural schools to compete for the same highly qualified teachers as bigger districts, the playing field must be fair. Rural districts have a particularly strong disadvantage because they are competing for teachers in high paying districts with more appealing working and environmental conditions within the same state (Fuller, 2002).

Ingersoll stated:

> Many policymakers realize that teacher salaries may be too low to attract and retain enough talented and well-prepared people to the teaching profession, and especially to challenging schools, leading some states toward policies that improve salaries or change the nature of the teacher salary schedule. (Berry & Hirsch, 2005, p. 3).

Unable to match salaries, benefits, and other resources offered by more affluent schools, high poverty schools, especially those in rural and urban locations, have difficulty competing for adequately trained teachers, and consequently, have higher populations of under qualified teachers (Ingersoll, 2004). Furthermore, the reasons salaries tend to be lower for teachers in rural schools are interconnected. Rural schools struggle to employ qualified teachers; thus making do with teachers who have fewer qualifications. The result is higher turnover rates (Monk, 2007).

Even if these small rural communities have a lower cost of living, their teacher salaries need to be higher in order to recruit and retain teachers (Prince, 2002). Many rural schools face higher costs of operation because of smaller size and geographically isolated locations. These rural schools may pay more on a per pupil basis because certain courses must be offered, if only to a few students. One way rural schools have been able to absorb and balance these costs within the state appropriated school budget is to pay lower salaries (Monk, 2007; Morton, 2007).

A 2004 report by the U.S. Government Accountability Office reported that rural superintendents see their districts' inability to provide competitive salaries for highly qualified teachers as a major obstacle to fulfilling the requirements of NCLB legislation. In general, rural states tend to pay teachers less than more populated states, and within states rural districts tend to pay less than their urban and suburban counterparts (Jimerson, 2003). Odden and Kelley (1997) suggested that "if better methods exist for paying teachers, they should be considered and adopted, especially if they will contribute to improved schools and higher, more adequately paid teachers" (p. 1). In support of Odden and Kelley's work, in a survey of teachers who left rural schools, an inadequate teaching salary was cited as the main reason for leaving. Furthermore, 65% of these teachers stated that a salary that was competitive with other state salaries would help to retain teachers in the future (Ingersoll, 2004).

One way that some states have attempted to create a competitive market for rural schools is implementing a statewide salary schedule. States that currently have a statewide salary schedule or a statewide minimum salary schedule include Alabama, Arkansas, Delaware, Hawaii, Kentucky, Louisiana, Mississippi, Missouri, North

Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Washington and West Virginia (Sawchuk, 2010).

Many states that have adopted state-wide salary schedule have also reformed education as a whole. Neighboring states such as Wyoming and Nevada have consolidated schools without collapsing local schools; which are often the heartbeat of the rural community. Educational reforms such as these have allowed for a consolidation of resources without jeopardizing the local pride that comes with rural towns having the school as the hub of the community (Oliveira, et al., 2006). It is possible, but by no means certain, that teachers in Montana would be more sensitive to more competitive salaries. This study would seek to understand ways Montana rural elementary schools could better compete monetarily, with respect to the different elements that fall under compensation and consolidation.

Specific to Montana, the National Education Association associates Montana with the Rocky Mountain Region along with Wyoming, Colorado, Idaho and Utah. During the 2012-2013 school year, the average annual salary for the region was $50,077, and of the five states within the region, Montana ranked lowest with an average annual salary of $48,855. Compared nationally, Montana's average annual salary is over $7,000 less than that of the average national teaching salary of $56,103. For beginning teachers, there is even a greater disparity of almost $9,000. Nationally, during the 2012-2013 school year, first year teachers made an estimated salary of $36,141 while the beginning teacher in Montana made an average beginning salary of only $27,274. Montana stands out as the state with the lowest average starting teaching salary in the nation (2014). According to the Rural School and Community Trust, it was estimated that over 400 Montana teachers

moved from Montana to Wyoming to teach because Wyoming has boosted funding dramatically (2008). Today, the average beginning salary in Wyoming is $16,000 greater than the average starting salary in Montana, and the overall average teaching salary in Wyoming is $7000 greater than the average teaching salary in Montana (NEA, 2014). Wyoming has tremendously increased starting teaching salaries across its state as a method to attract beginning teachers.

Jordan, Crehan and Jordan define a rural state as a state with 15 or less students per square mile (2004). Montana exceeds this definition due an overall student population that is one of the lowest in the nation, the percent of rural districts is the highest in the nation, and people per square mile is 7 (compared to the national average of 88 people per square mile) (Johnson, et al., 2014; NEA, 2014). This forces Montana's rural schools not only to compete with surrounding states like Wyoming that may pay their teachers substantially more; they must also compete with other non-rural schools in their own state (Jimerson, 2003).

According to the Montana Education Association (MEA-MFT), the disparities between the largest school systems and the smallest school systems in Montana have been growing over the last decade. Specifically, Montana's 18 largest school systems, Class 1, employ over half of all of Montana's teachers, and a beginning Class 1 teacher makes on average 11% more than a Class 2 beginning teacher and 17% more than a beginning teacher in the state's smallest class, Class 3 (2010). During the 2009-2010 school year, the average Class 1 beginning teaching salary was $30,382 compared to the projected national starting teacher salary of $36,000. Even Montana's most fortunate Class 1 school systems are starting their teachers out 15% below the national starting

teaching salary, and Class 3 school systems lag even further behind the projected beginning teacher salary in Montana by 30% (MEA-MFT, 2010).

Summary

A majority of U.S educators who have been recently hired as teachers are replacements for teachers who left the classroom for reasons other than retirement (Ingersoll, 2002). Economically challenged schools located in isolated rural areas have been left even further behind with regard to retaining teachers (Roth & Swail, 2000). Ingersoll (2007) indicated that the attrition rate was even greater within the first couple of years of teaching where it was estimated that about one out of every three teachers leave the profession during the first three years. The challenges faced by rural schools to retain teachers are overwhelming. Characteristics, conditions, and compensation all create obstacles to retaining teachers in rural elementary schools.

"The problem does not lie in the numbers of teachers available; we produce many more qualified teachers than we hire. The hard part is keeping the teachers we prepare" (Darling-Hammond, 2003, p. 7). In order to understand what is necessary to keep teachers in Montana's rural elementary schools, Olson believes that rural schools must focus on what is needed to retain those who already have been recruited (2000).

One of the most important issues in K-12 education today is ensuring that every classroom is properly staffed with a qualified teacher (Ingersoll, 2004). Current teachers from Montana's rural elementary schools who volunteered to be the voice of this research provided a clearer understanding as to what current Montana rural elementary educators deem necessary to retain teachers in the State's rural elementary schools. "Clearly, what

we are doing today is not working. It is time for revolutionary-not evolutionary-change" (Teaching Commission, 2004, p. 18).

Chapter Three

Methodology

A review of the literature, as outlined by Jonathan Sher's Retention of Rural Teacher Framework (1983), was very informative in developing the structure of this research. Sher (1983) stated that attracting and keeping teachers in rural schools is a function of the three C's: characteristics, conditions, and compensation. Sher's work was incorporated into this research design, but it was not be a limiting factor. The literature suggested that due to Montana's rural nature and overall lack of research specific to Montana's rural elementary schools, the difficulties associated with retaining teachers requires continuous exploration in order to better understand retention factors (Access, 2008); particularly in light of the continuously changing characteristics, conditions, and compensation.

The design of this research identified the factors that predict retention through analysis of quantitative data with the possibility of explaining any relevant predictability using qualitative data. Subsequently, the question that guided this research was: "What factors predict teacher retention in Montana's rural elementary schools."

Research Design

This study was conducted using a mixed methodology design (Creswell, 2014). This is a process for "mixing" both quantitative and qualitative data within the same piece of research. "The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone" (Creswell, 2014, p. 5). For the purpose of this research, primacy lay in the quantitative portion of the research, and the qualitative

data were used to provide possible explanations through thick rich descriptions (Creswell, 2014) of the qualtitative findings.

This mixed method research used a pragmatic approach (Creswell, 2014; Cherryholmes, 1992) emphasizing truth was "what works" at the time (Morgan, 2007; Tashakkori & Teddlie, 2010). The major belief of pragmatism is that quantitative and qualitative methods are compatible, and both methods are combined because the data (numerical and text) work to provide the best understanding of the research problem.

This study used one of the most common mixed methods designs in educational research: explanatory sequential mixed methods design (Creswell, 2014). Numerical and text data collected sequentially in two different phases helped better understand the research problem in its entirety. In phase one, the quantitative portion, numerical data were collected, using a web-based census and the data were subjected to sequential Discriminate Function Analysis (Tabachnick & Fidell, 2013). The purpose of the quantitative phase was to identify the magnitude and direction of potential predictive variables selected for analyzing the predictability of retention in Montana's rural elementary schools. Building on the analysis from phase one, phase two collected textual data through open-ended qualitative questions using a continuation of the same web-based survey from phase one. The quantitative data documented the degree to which the predictor variables used in this research establish a meaningful level of predictability while the qualitative data and their analysis enhanced, complimented, and clarified any meaningful predictability established in phase one exploring detailed descriptions of Montana's current rural elementary teachers.

This mixed methods study considered the three issues of priority, implementation, and integration (Creswell & Plano Clark, 2011). Proportionate priority was given to the quantitative and qualitative portions of the research. The quantitative component first revealed the predictive capacity, if any, of the selected factors related to teacher retention in Montana's rural elementary schools. Then the qualitative phase focused on the in-depth and open-ended written explanations of quantitative results from all participants from phase one who chose to be part of phase two.

Participants in both phases of the study were identified as being from one of the five Comprehensive System of Personnel Development (CSPD) regions in Montana illustrated in Figure 2 (OPI, 2014b). The Montana CSPD Regional Map was used to organize Montana's rural schools into geographic locations for interpreting and reporting purposes.

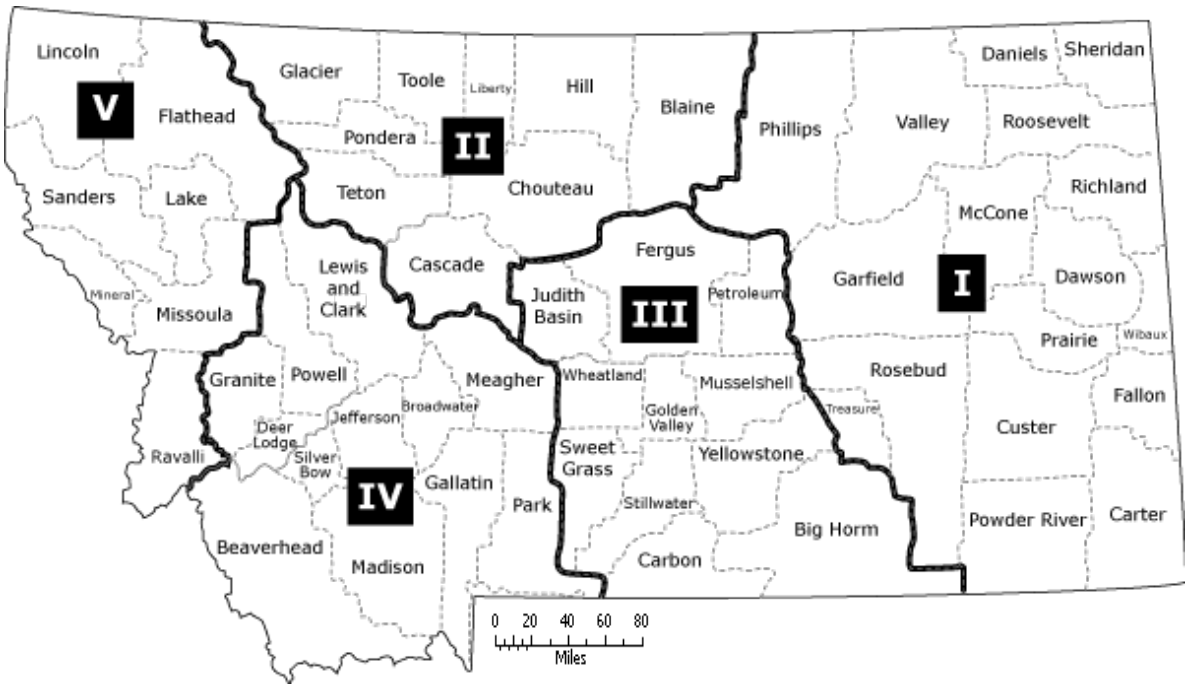

Figure 1. Montana CSPD Regional Map

Population and Participants

A Montana rural elementary school was defined as rural elementary school districts and grades K-8 of rural K-12 school districts in Montana for the 2014-2015 school year without a building principal or superintendent. For administrative purposes, these districts fall under the supervision of a Montana County Superintendent. In the state of Montana, every school district that does not have a building level administrator hired by the district falls under the supervision of a county superintendent.

All of these school districts also have a Locale Code of 7. School districts with a Locale Code of 7 are defined by NCES as "any incorporated place, Census designated place, rural incorporated place, or non-place territory not within a Core Based Statistical Area or Consolidated Statistical Area of a Large or Mid-size City and defined as rural by the Census Bureau" (Hoffman, 2004, p.2). Locale Code is a variable that NCES created for general description and other statistical purposes. It is based upon the location of school buildings. The designation of each school's "locale" is based on its geographic location and population attributes such as density. School locale codes are coded by Census from school addresses in the Common Core of Data (CCD) files. The classifications of schools range from 1 (large city with a population greater than or equal to 250,000) to 7 or 8 (incorporated places defined as rural by the Census Bureau). For the purpose of this research, the teachers working in the 98 rural schools who operated under the supervision of a county superintendent in the state of Montana were invited to be participants in this study. See Appendix A for a complete list of all 188 rural elementary schools whose teachers were invited to be a part of this study.

Data were collected and solicited from the entire population of Montana's current rural elementary school teachers who were teaching in a rural elementary school during the 2014-2105 school year; thus the sample was the population of all such teachers. These data remained unchanged for the 2014-2015 school years and not require additions or subtractions to the list found in Appendix A.

For phase one, the quantitative portion of the research, the entire population was recruited to be part of the study. For phase two, the qualitative phase of the research, those who indicated at the end of the first phase of the research their willingness to participate in the second phase were directed to additional open-ended qualitative questions (Creswell, 2014). Phase two was inclusive of all teachers who were willing to answer the five additional qualitative open-ended questions.

Data Collection

Quantitative data collection.

The quantitative phase focused on identifying factors that were predictive of a teacher's intent to stay or leave (Appendix B). The data were collected in the winter of 2015 from current rural elementary school teachers in Montana as defined previously. The primary technique for collecting data was a self-developed web-based survey hosted by SurveyMonkey.

The second to last question sought additional information about retention in Montana's rural elementary schools as it related to factor(s) that may have been overlooked by the researcher. The last question asked the participant if he or she would be willing to participate in phase two of the research, there would be five additional open-ended questions that immediately follow phase one using the same web address. If the

participant answered “yes” to the last question, then he or she was directed to phase two. If the participant answered “no” to the last question, then he or she was directed the final page of the survey.

To increase the response rate, the protocol and follow-up sequence outlined below was used (Dillman, Smyth & Christian, 2014). See Appendix D for a more detailed outline.

Step 1. Introductory E-Mail to Montana County Superintendents

Step 2. E-Mail to Montana County Superintendents

Step 3. Initial E-Mail to Rural Montana Elementary School Teachers

Step 4. Follow-Up E-Mail to Rural Montana Elementary School Teachers

Step 5. Follow-Up Phone Calls to Rural Montana Elementary School Teachers

Qualitative data collection.

The qualitative phase in this study focused on supporting results of the statistical tests. The primary technique was collecting responses to open-ended questions from all teachers who volunteered to be part of phase two. The qualitative protocol included five open-ended questions. The content of the protocol questions supported the results from the statistical tests of the relationships between the participants’ group membership (intent to stay or intent to leave) and the predictor factors, as they predicted teacher retention in Montana’s rural elementary schools. The participants were able to view the open-ended questions at the conclusion of phase one, before choosing whether or not to participate in phase two, the qualitative phase.

Data Analysis

Quantitative data analysis.

Research variables.

The review of literature relevant to the overarching research question forming this research helped to identify potential variables for this study. The teachers' actual level of retention as well as their further intent to stay or leave was the dependent or criteria variables. The variables selected for this research were numerous and may be observed in the attached survey (Appendix B).

Statistical procedure.

The use of descriptive statistics impacts the development of statistical methods in research, and according to Glass and Hopkins (1996), descriptive statistics refers to "the keeping of orderly records of governmental units, counting, measuring, describing, tabulating, and ordering" (p. 2). In order for quantitative data to be reported in this study, descriptive statistics were used to organize the data. Descriptive statistics provided comparative data on a variety of selected characteristics with regard to the three C's (Sher, 1983). Moreover, these statistics also create a clear picture of the Montana rural elementary school teacher.

The criteria variables that are ratio level data were the subject of multiple stepwise regressions using ratio level predictor variables. For the purposes of this research, a multiple coefficient of predictability, R^2, of at least 50% was considered an important level of predictability. The strongest single predictor variable served as the primary predictor and additional predictor variables added to the findings for any variable that contributes at least 5% of additional predictability.

Given this research design embodies the entire population of rural Montana teachers, the error of inference, i.e., the p-value, were not reported as the findings pertained to the actual participants and were not statistically inferred to any other population.

Dichotomous criterion variables were subject to Discriminant Function Analysis using ratio level data predictor variables. An important level of correct predictability was set *a priori* at 60% or higher. Again, a p-value was not reported owing to the parametric form of the research. A return rate of at least 60% was sought, and 137 surveys were returned out of 188 that were e-mailed to Montana's rural elementary school teachers, which resulted in a return rate of 73%.

Variables that moderated either the direction or the magnitude of predictability or both were reported if the variable changes the direction of the primary level predictability defined above and/or moderates the magnitude of the highest level of multiple R^2 found in this research by 15% or greater. Other appropriate analysis primarily of a descriptive nature was conducted as appropriate to the outcomes of the major analyzes and relevant findings as determined above. See Appendix H for the question justification as it relates to questions in this research.

Qualitative data analysis.

The steps in this qualitative analysis, specific to this research, included steps 1 and 3. Since the qualitative data was used to support what was found quantitatively, step 2 was eliminated in this research:

1. Data analysis in qualitative research consisted of preparing and organization the data;

2. reducing the data into themes through a process of coding and condensing the codes, and
3. representing the data in figures, tables, or discussion. (Creswell, 2007, p. 148)

Validity and Reliability

Quantitative validity and reliability.

Validity and reliability have different forms specific to the design of the research. The validities appropriate to address regarding this research included external, internal, face, and content. With respect to external validity, this research design eliminated all threats to external validity by researching the entire population rather than a sample thereby eliminating any possible error of inference. Internal validity is threatened by seven factors; however, this study was designed to identify predictive relationships rather than causal, which eliminate any concern regarding threats to internal validity.

In order to ascertain face and content validity to ensure appropriate content and minimize ambiguity, a pilot survey was distributed to 20 educators in Lincoln, MT who had the field experience necessary to establish an *a priori* degree of both face and content validity. The input from the pilot was used to further inform the syntax and content of the survey and edits were made as appropriate before final distribution. Modifications included reduction in the number of questions, clarification of wording in various questions, and rearrangement of question order. The final survey questions reflected the research found in chapter two, were relevant to the topic at hand and included modifications as a result of this pilot process.

Calculating reliability coefficients was appropriate when the information sought was in the form of an assessment using data from a random sample of a large population

and the survey was intended for future use, neither of which are considerations in this research. This research design did not lend itself to split half, test/retest, or other such configurations needed to provide the appropriate form of data for reliability calculations.

Furthermore, the data were objective quantitatively and subjective qualitatively. The quantitative data were reliable to the degree that respondents responded accurately, and the qualitative data provided rich individual descriptions that were unique to each participant who answered the qualitative questions in the questionnaire.

Qualitative trustworthiness.

Qualitative validity means checking for accuracy of the findings by employing certain procedures (Creswell, 2014, p. 201). The researcher sought believability, based in authenticity, credibility and trustworthiness (Lincoln, Lynham, & Guba, 2011) through a process of verification. Data were checked to make certain there is not a "drift in codes" by routinely comparing data with the codes and keeping a quick reference list of codes and their definitions (Creswell, 2014, p. 203)

Qualitative reliability implies that the researcher's approach was consistent across different pieces of research (Gibbs, 2007). Extensive verification procedures, including the use multiple data sources, member checking, and rich, thick descriptions of these cases were used to establish the accuracy of the findings. Furthermore, the researcher's dissertation chair and committee reviewed all research procedures and data analyses in the study.

Confidentiality and Ethical Considerations

Ethical issues were addressed at each phase in the study. In compliance with the regulations of the Institutional Review Board (IRB), permission for conducting the

research was obtained by filing a Request for Review Form (Appendix L). This research falls in the minimal risk category because participant's data remained anonymous, none of the research questions were considered sensitive topics, and the quantitative sample size exceeded the minimum requirement.

The protocol and follow-up sequence previously outlined in this chapter were used (Dillman, Smyth & Christian, 2014). See the appendices for copies of e-mails sent to county superintendents and rural elementary school teachers. The informed consent acted as the first page of the web-based survey. It stated that participants are guaranteed certain rights, must agree to voluntarily participate in the research, and acknowledged their rights are protected. Participants were required to give consent on the first page of the web-based survey before being allowed to continue with the actual survey itself.

They survey was hosted by SurveyMonkey. To ensure that the survey was anonymous, the URL link to the survey was provided in the body of an e-mail sent to each participant individually. There were no potentially identifiable technical data (e.g., IP address) in the collection configuration. All data, numerical and text were kept in a secure location on the researchers computer.

Role of the Researcher

The researcher's involvement with data collection in the two phases of this study was different for each phase. In the quantitative phase, the researcher administered the survey and collected the data using the standardized procedures. The data analysis was performed using parametric techniques on the population of data.

In the qualitative phase, the researcher assumed the role of primary data collector (Creswell, 2014) thus; it was necessary to identify possible bias. The researcher is a

current elementary school administrator in Montana. She began her administrative career in a rural K-12 district in Montana and has experienced some of the challenges with teacher retention in Montana's rural elementary schools from the administrative point of view. As a doctoral student, she assisted the Montana Legislature during the 2005 session about school funding and conducted research with the Educational Leadership Department at The University of Montana on the Native American Achievement Gap for the Office of Public Instruction. Although Montana is geographically a large state, its relatively small population makes it feel small with many unrecognized connections. It is for these reasons there may be a possibility for subjective interpretations of the study that may create a potential for bias (Creswell, 2014).

At the same time, it should be noted that the researcher is not currently working in any of Montana's rural elementary schools that were part of the study and does not have a preexisting relationship with any of the teachers. These influences, although not strong enough to eliminate the possibility for bias, provided reasons why the researcher decided to continue with the research as proposed.

Summary

The mixed-method research study was designed to determine what factors predict teacher retention in Montana's rural elementary schools. In particular, the study was designed to determine the extent to which the three C's: characteristics, conditions and compensation (Sher, 1983) predict teacher retention in Montana's rural elementary schools. Quantitative methods were used to obtain descriptive data and qualitative methods were used for the purpose of providing rich descriptive data to compliment the findings of the quantitative methods.

Chapter Four

Quantitative Analysis and Results

This chapter described the survey analysis and results. Microsoft Excel was used to analyze survey responses, and information was reported in both written and tabular form. The purpose of this study was to determine what factors predict teacher retention in Montana's rural elementary school districts. This analysis explored factors associated with characteristics, conditions and compensation (Sher, 1983).

The current salary, years teaching in present rural school, and total years of teaching in rural schools variables were identified in the methodology as possible predictors of retention. Given retention is categorical level data; a multiple dependent variable Discriminant Function Analysis was conducted instead of a multiple regression. These three variables failed to show a predictive capacity above chance for prediction of retention.

Characteristic data included the following factors: (a) age, (b) sex, (c) martial status, (d) children, (e) location of college or university attended for teacher training, (f) degree earned, (g) hometown, (h) years in current position, and (i) total years of rural teaching experience. Working and environmental conditions data included: (a) teaching in a multi-grade classroom, (b) mentoring programs, (c) support from stakeholders, (d) housing, (e) recreation, and (f) social, cultural and religious facilities. Compensation data included: (a) salary, (b) benefits, and (c) incentives.

The survey used to collect data was made available to all teachers who were teaching in Montana's rural elementary schools under the supervision of the county superintendent during the 2014-2015 school year via e-mail. Imbedded in each e-mail

was the link to the on-line survey hosted by SurveyMonkey. The survey was voluntary and anonymous. A total of 188 individual e-mails were sent, and 137 were returned within one month resulting in a 73% response rate. The participation rate was set *a priori* at 60%.

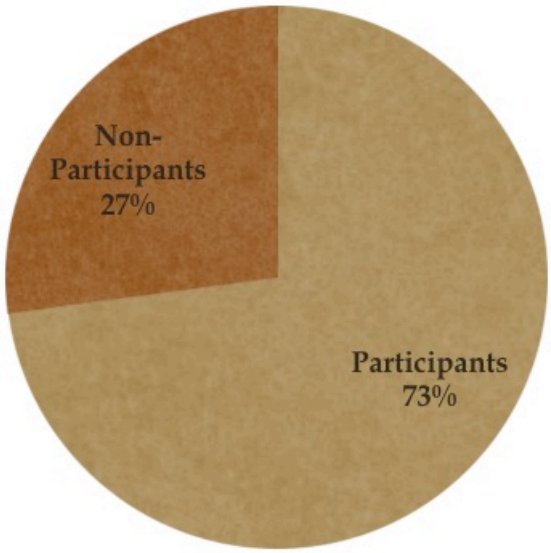

Figure 2: Response Rate

Findings

Understanding the distribution of students and teachers in Montana's rural elementary schools helped to create a framework from which to build upon. This research was organized by dividing the state into five regions according to the Montana Comprehensive System or Personnel Development, CSDP, Regional map. See figure 2. Analysis of data in this chapter was organized by these regions to better understand the unique circumstances in different parts of the state.

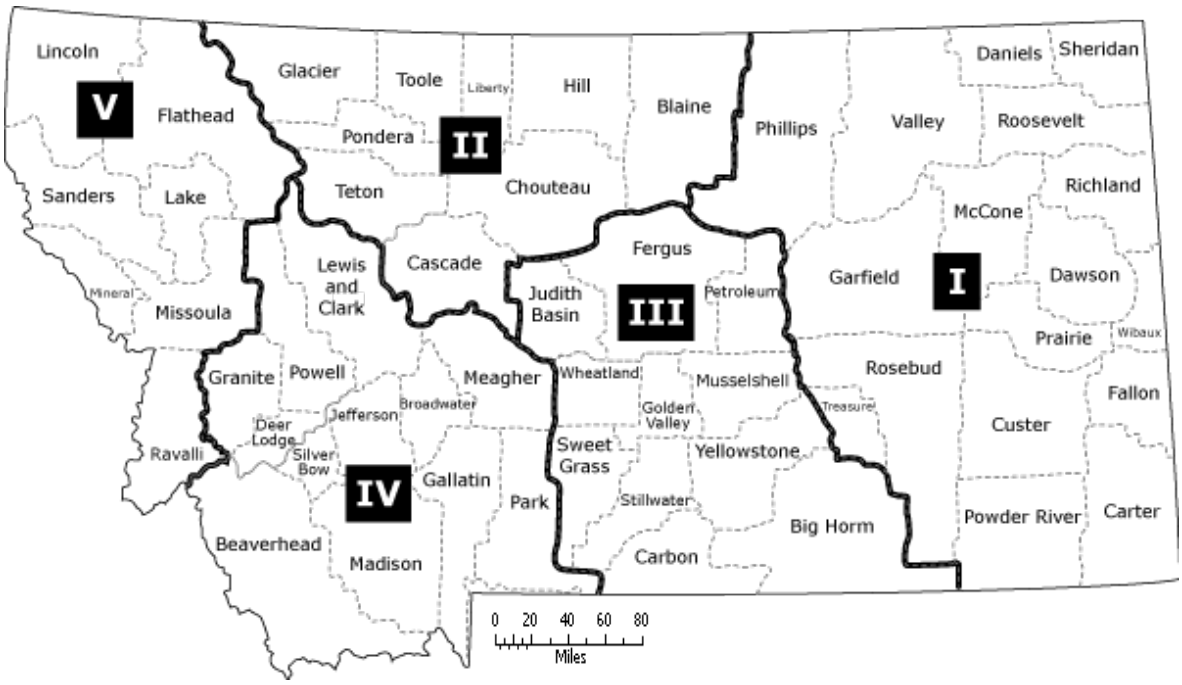

Figure 2. Montana CSPD Regional Map

CSPD Regions.

Table 1 represented the percentage of participation by each of the five regions. Not only did Region III, the south central part of the state, have the fewest number of rural Montana elementary teachers (19), Region III also had the lowest participation rate percentage (47%). Region II, the north central part of the state had the second fewest number of rural Montana elementary teachers (31) but highest percent participation at 77%.

Table 1

Participation Rate by Region

Region	Total Rural Teachers (N)	Total Participants (P)	% Participation (P/N)
I	41	27	56%
II	31	24	77%
III	19	10	47%
IV	50	38	58%
V	47	38	70%
Total	188	137	73%

Table 2 disaggregated data even further and discovered that over half (54%) of all respondents in this research are teaching in Regions IV and V the western part of the state. These two regions also account for 13 of the 18 teachers (72%) who intended to leave.

Table 2

Detailed Participation Rate by Region

Region	Total Participants	Stay	Leave	Retire	Do Not Know	No Response
I	27	20	3	3	1	
II	24	23	1			
III	10	8	1		1	
IV	38	24	5	4	4	1
V	38	25	8	1	2	2
Total	137	100	18	8	8	3

Teachers.

Number of teachers in the school.

During the 2014-2015 school year, Montana had a total of 188 teachers teaching in 98 rural elementary schools (Table 3), and 56% of these rural elementary schools employed only one teacher. In addition, 25% of Montana's rural elementary schools only had two teachers. Of the remaining 19% of Montana's rural elementary schools, seven schools had three teachers, four schools had four teachers, two schools had five teachers, one school had six teachers, two schools had seven teachers, and two schools had nine teachers.

Table 3

Number of Schools by Region

Region	Total Schools (N)	Schools with One Teacher (S)	% of Schools with One Teacher (S/N)
I	25	17	68%
II	21	14	67%
III	13	11	85%
IV	27	8	30%
V	12	5	42%
Total	98	55	56%

Intentions for the 2015-2016 school year.

Overall, there were 18 (13%) teachers who intended to leave their current teaching position, and 100 (73%) teachers who intended to stay in their current teaching position.

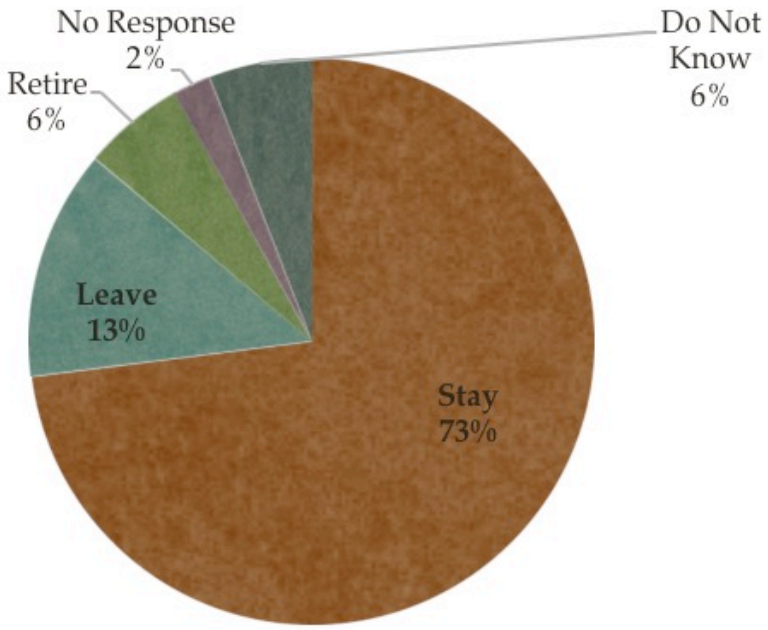

Figure 4: Intentions

Additionally, as illustrated in Table 4, eight teachers (6%) intended to retire, eight teachers (6%) who were not sure of their intentions next year, and three teachers (3%) who did not answer the question.

Table 4

Intentions for the 2015-2016 School Year

Intentions	Number of Responses (N)	% of Total N
Stay	100	*75%*
Leave	18	*13%*
Retire	8	*6%*
Do Not Know	8	*6%*
Total	134	

No Response = 3

Findings, for the purpose of this research, focused mainly on the 118 teachers, represented in Table 5, who intended to either stay (100) or leave (18). The other 19 teachers were reported as necessary to help explain the findings.

Table 5

Intentions to Stay or Leave the Current Teaching Position

Intent	Number of Teachers (N)	% of Total N
Stay	100	85%
Leave	18	15%
Total	118	

Characteristics

Age.

The age distribution of teachers in Montana's rural elementary schools, shown in Table 6, indicated that 14 (12%) of Montana's rural elementary teachers were under the age of 30. Of the 14 teachers who were under the age of 30, 13 were females who all intended to stay in their current position. Of the 13 females who intended to stay, 50% were single compared to only 27% of those 30 years old and older.

Table 6

Age

Age	Number of Responses (N)	% of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
<30	14	12%	13	13%	1	6%
30-39	25	22%	19	20%	6	33%
40-49	34	30%	30	31%	4	22%
50-59	31	27%	25	26%	6	33%
60>	11	10%	10	10%	1	6%
Total	115		97		18	

No Response = 3

At the other end of the spectrum, 10 of the 11 teachers (91%) who were 60 and over intended to stay next year, even though the average national retirement age is 59 (Carroll and Foster, 2010). The 11 teachers who were 60 and over also stated that they intended to remain in the district for an average of nine more years. Of those teachers who reported their ages, just a one-year difference between the average age of those who were leaving (44 years) and those who were staying (45 years) was found.

Sex.

Overall, a majority of the teachers who are currently teaching in Montana's rural elementary schools are female (90%). This is a noticeably higher percentage than the national average of 75% (NCES, 2013). According to this research, not only are there more females than males that make up the rural elementary teaching population in Montana, a larger percentage of females intended to stay in their current teaching position next year (87%) compared to 64% of males with intention to stay.

When examining the relationship between average age by sex and intention to stay or leave, there was no difference in average age between females intending to leave (45 years) and those intending to stay (45 years). Males had a slight difference in that the average age of those males intending to leave (42 years) was a just a year less than the average age of those planning to stay (43 years).

Table 7
Sex

Age	Number of Responses (N)	% of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Female	106	91%	92	93%	14	78%
Male	11	9%	7	7%	4	22%
Total	117		99		18	

No response = 1

The 14 female respondents who intended to leave were inconclusive as to where they would be moving next. Eight stated that they would like to stay in Montana, three said they intended to move out of state, and three more stated that they did not know where they intend to live next year. More specifically, of the eight that stated they would like to stay in Montana, five would like to move to a larger community in Montana, one wanted to stay in a similar sized town in Montana, and two intended to stay in the community.

One female teacher in her forties, who was married and has two school aged children, has decided to leave the teaching profession completely after teaching in the same rural elementary school district for the past fourteen years. She and her husband both had jobs in the community, "but can't afford to live there." After living in the community for almost 25 years, they are moving "on to bigger and better" where she can "earn a salary that a teacher can live on." She stated that a she believes a statewide salary schedule would help to increase retention in Montana's elementary school districts.

Four of the 11 males who participated in the research (36%) intended to leave their current teaching position. One intended to apply for an administrative position after working in his current rural elementary school for 20 years, one intended to leave the teaching profession completely, and two intended to teach in a similar school in Montana. All 11 males stated that they were satisfied with the rural lifestyle and intended to either stay in their current rural community (82%) or move to a similar sized community in Montana (18%).

Marital Status.

As shown in Table 8, the majority of Montana's rural elementary school teachers were married (69%). However, five of the 10 single teachers from Region II indicated they intended to leave at the end of the year. Four of these five teachers from Region III stated that they intended to teach in another district. The other one intended to leave the teaching profession entirely.

There was a slight difference between whether teachers intending to remain in their current position based upon marital status with 6% more married teachers likely to continue in the same school (87%) than their unmarried coworkers (81%).

Table 8

Marital Status

Marital Status	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Single	36	31%	29	29%	7	39%
Married	82	69%	71	71%	11	61%
Total	118		100		18	

No Response = 0

When disaggregating the data even further, as illustrated in Table 9, over half of the teachers who intended to leave Region V (5 out of 8) were also single. This is unique in comparison to Regions 1, 2 and 3 where none of the single teachers intended to leave.

Table 9

Marital Status and Region

Marital Status	Region	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
	Region I	9	8%	9	9%	0	0%
	Region II	11	9%	11	11%	0	0%
Single	Region III	0	0%	0	0%	0	0%
	Region IV	6	5%	4	4%	2	11%
	Region V	10	8%	5	5%	5	28%
	Single Totals	36		29		7	
	Region I	14	12%	11	11%	3	17%
	Region II	13	11%	12	12%	1	6%
Married	Region III	9	8%	8	8%	1	6%
	Region IV	23	19%	20	20%	3	17%
	Region V	23	19%	20	20%	3	17%
	Married Totals	82		71		11	
	Total	118		100		18	

No Response = 0

Marital status, when analyzed by sex, reveled that 73 married females represent 62% total of the participants in this research. Of these 73 married females, 65 (89%) intended to stay in their current teaching position, see Table 10. Married males, on the other hand represented the lowest of the four groups with only five out of a total of eight intending to stay.

Table 10

Marital Status and Sex

Marital Status	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Single Males	3	3%	2	7%	1	6%
Single Females	33	28%	27	93%	6	33%
Married Males	8	7%	5	17%	3	17%
Married Females	73	62%	65	24%	8	44%
Total	117		29		18	

No Response = 1

Children.

Families played a big part of the rural lifestyle with 69% of all rural elementary teachers stating that they had children. Table 11 constructed a picture of the types of rural families with a parent teaching in a rural elementary school.

Table 11

Children

Children	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
None	37	31%	30	30%	7	39%
Young Children	7	6%	5	5%	2	11%
School-Age Children	41	35%	37	37%	4	22%
Older Children	33	28%	28	28%	5	28%
Total	118		100		18	

No Response = 0

Specifically, 6% of teachers in this research had children who are still too young for school, and this group of teachers on the table below was labeled “Young Children.” On the other end of the spectrum, 28% of the participants stated that they had children that were no longer school aged. This group was labeled “Older Children.” The largest family group was represented by the 41 participants who have school-aged children (35%). The three groups of teachers who had children, whether too young for school, school-aged, or older children was further explained in tabular form on Table 12.

Table 12

Family Size

Number of Children	Number of Responses *(N)*	*%* of Tota l N	Stay (S)	% of Total S	Leave (L)	% of Total L
None	37	*31%*	30	30%	7	39%
1	21	18%	18	18%	3	17%
2	36	31%	30	30%	6	33%
3	14	12%	14	14%	0	0%
4	7	6%	5	5%	2	11%
5	3	3%	3	3%	0	0%
Total	118		100		18	

There was only one teacher who intended to leave who has grown children and a master’s degree. She intended to leave to teach in a larger district in Montana next year where she can earn a higher salary than she currently makes at $33,000. She did not

graduate from a Montana high school and received her teaching certification in California. When asked for additional comments she said, “At the school I work in I am the principal and teacher. It gets overwhelming at times when there are a lot of administrative things going on. I am at a point where I just want to teach!” She went on to say:

> Again, I can only speak for myself but the main reason I am leaving is that the amount of work and time I spend over and above teaching is huge. I think I am getting burnt out with it all. Especially with the pay I make. It is a joke. For a teacher with a master's degree, and the time I put into all of the extra jobs I do, the pay is horrible. For a teacher's income to be at the poverty level, that is a shame.

Nearly half of all teachers who participated in this research (49%) had one or two children and 20% of teachers who participated in this research had three or more children. Of the 24 teachers with three or more children, only two intended to leave their current position. Both of these two teachers had children that are now grown and no longer are in k-12 school, both were married females in their fifties who did not attend a Montana college or university to obtain licensure. Both of these teachers lived in their current community for over a decade and believe teacher retention would increase with the creation of a statewide salary schedule.

One of these teachers, who intended to teach in a similar sized community outside of Montana added the following comments:

> Rural teachers are over-worked and paid welfare wages with minimal medical coverage. We teach all subjects, monitor our own recesses, serve lunch, eat lunch with our students, and have little or no prep time (depending on the year). We

spend our precious money on additional supplies and resources for rooms. We buy boots, hats, and gloves for our students. We have to have our own fundraisers to raise money for field trips and classroom supplies. It is exhausting! We do it because we love the kids. Also, unless you want to pick up and move from your community you have no choice. The staff is so small and turnover is high, which affects the quality of teaching. It also prevents the staff from unionizing.

Teacher Certification.

Not only did a large majority of the participants in this research attend Montana colleges or universities for teacher training (61%), they represented the lowest percentage of teachers who intended to leave at 11% compared to participants who intended to leave and attended colleges or universities out of state (21%) or on-line (25%).

Table 13

College or University Attended for Teacher Training

College/University	Number of Responses *(N)*	% of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Montana State University						
Billings	14	20%	13	21%	1	13%
Bozeman	11	15%	11	17%	-	-
Northern	9	13%	8	13%	1	13%
University of Montana						
Missoula	18	25%	15	24%	3	38%
Western	14	20%	12	19%	2	25%
Other Montana Colleges/Universities						
Carroll College	2	3%	2	3%	-	-
Salish Kootenai College	2	3%	2	3%	-	-
University of Great Falls	1	1%	-	-	1	13%
In-State Total (above)	71	61%	63	64%	8	44%
Out-of-State	38	32%	30	30%	8	44%
On-Line	8	7%	6	6%	2	11%
Total	117		99		18	

No Response = 1

Educational Level.

Teachers teaching in Montana's rural elementary schools who participated in this research were three times more likely to have earned only a bachelor's degree (75%) than a master's degree (25%), and none of the participants in this research had earned a degree above a master's degree. Of the 88 teachers who were teaching with only a bachelor's degree, 11% of them intended to leave their current teaching position at the end of the year, compared to 24% of the 29 teachers with a master's degree who intended to leave, see Table 14. This finding supports national research that the administrators would lean towards hiring teachers without advanced degrees to teach in rural schools with the hopes that they would stay in the rural school longer than those with more education (Harris & Saas, 2007). Additionally, 16% of the teachers in this research indicated they were in furthering their education and were in the process of earning either a master's degree (17) or a graduate degree beyond a master's degree (1). Consistent with the research, teachers with more education were expected to leave at a higher rate than those with just a bachelor's degree (Monk, 2007).

Table 14

Educational Attainment

Educational Attainment	Number of Responses *(N)*	% of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Bachelors	88	75%	77	77%	10	56%
Masters	29	25%	77	77%	7	39%
Total	117		154		17	

No Response = 1

High school attended.

Those teachers who intended to leave their current schools graduated from a high school having an average high school graduation class size of 218 pupils while teachers who intended to stay graduated from a high school having an average high school graduation class size of 185.

Discriminate Function Analysis computed a 75% correct predictability of those who intended to stay based upon the size of their high school graduating class with those from the smaller graduating classes being the most predictable to stay. Precisely, those graduating from a high school class having 190 or fewer students were more likely to remain in their present school of employment.

Similar community.

There was a difference between those participants who stated they were currently teaching in a community similar to their hometown (40%) and those who were not teaching in a similar community to their hometown (60%) as illustrated in Table 15.

Table 15.

Similar Community

Similar Community	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Yes	47	40%	38	38%	9	50%
No	71	60%	62	62%	9	50%
Total	118		100		18	

No Response = 0

When data were disaggregated even further to test the relationship between similar communities and preparation to teach in a rural school, about the same amount of participants either said they were from a similar community and prepared to teach in a rural school (23), or from a similar community but not prepared to teach in a rural school (24), or not from a similar community but prepared to teach in a rural school (26). There were 45 participants who were not from a similar community and stated that they were not prepared to teach in a rural school.

Table 16

Similar Community and Being Prepared

		Prepared	
		Yes	No
Similar Community	Yes	23	24
	No	26	45

In Table 17 the relationship between similar communities and being prepared is illustrated even further. In this table, the number from each of the four groups that intended to leave is divided by the total in the group yielding a percentage from each group that intended to leave. Those teachers who did not come from a similar community, but considered themselves prepared to teach in a rural school have the lowest percentage of teachers who intended to leave.

Analyzing the group of teachers who did not come from a similar community, but felt prepared to teach in a rural school revealed that 10 of these participants where in their first year of teaching in this position and 11 of these teachers had five years or less of

total rural teaching experience. When these teachers were asked if Montana would benefit from a statewide salary schedule, 16 of the 24 (67%) answered yes.

Table 17

Similar Community and Being Prepared (Part 2)

		Prepared	
		Yes	No
Similar Community	Yes	5/23 = 22%	4/24 = 17%
	No	1/24 = 4%	8/45= 18%

No Response = 2

One female who graduated from a Montana high school and earned her teaching certification in Montana but is not teaching in a similar community to where she grew up intended to leave the teaching profession completely after 14 years stated:

> Rural districts can't afford to pay salaries that bigger the districts do; yet teachers are usually required to teach more grade levels meaning more lesson planning and time demands. They [teachers] usually have to teach their own specialties such as music and PE. It is difficult, and the pay is less. Retention also is affected by the ability for spouses [if married] to find work [in or close to the community].

Experience.

There were two ways of analyzing experience as it relates to this research. The first was the year(s) of experience in the current position, and the other was total years of rural teaching experience. For example, a teacher could say that she had two years in her current position and five additional years in another rural school; thus resulting in seven total years of rural teaching experience.

There were a total of 18 rural teachers in their first year of a rural teaching experience, and 26 rural teachers in their first year in their current position. When years of experience in the current position were grouped in increments, the number of teachers in his or her first four years in their current assignment represented 50% of the total population of participants. This group of teachers stated that they intended to stay at a higher percentage (85%) than teachers with five to nine years of experience (82%), 10 to 14 years of experience (76%). There were no teachers with 15 to 19 years of experience who intend leave, and 90% of those with 20 years and greater intend to stay.

Table 18

Experience

Group	Years	Number of Responses *(N)*	% of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Current Position	Under 5	59	50%	50	50%	9	50%
	5 to 9	22	19%	18	18%	4	22%
	10 to 14	17	14%	13	13%	4	22%
	15 to 19	10	8%	10	10%	-	-
	20 and Over	10	8%	9	9%	1	6%
	Total	118		100		18	
All Rural Schools	Under 5	43	36%	37	37%	6	33%
	5 to 9	23	19%	19	19%	4	22%
	10 to 14	25	21%	19	19%	6	33%
	15 to 19	11	9%	11	11%	-	-
	20 and Over	16	14%	14	14%	2	11%
	Total	118		100		18	

There were 51 teachers in this research that had additional rural teaching experience beyond their current assignment. When analyzing the data by total years of

rural experience, it was found that teachers with 10 to 14 total years of experience yielded the highest percentage of those who intend to leave at 24%.

When exclusively looking at the 51 teachers who had multiple rural experiences it was found that 26 of the 51 teachers, just over half, taught for three years or less in another district before teaching in their current district. Of the 26 teachers with three or fewer years of experience in another district, 13 had been in their current position for a range of 11 to 37 years.

Conditions

Of the 112 teachers who answered the question, "what do you feel has the greatest influence on teacher retention" 57 teachers (51%) said conditions had the greatest influence on teacher retention; while 24 teachers (21%) said that characteristics had the most influence on teacher retention and 31 teachers (28%) said compensation had the most influence on teacher retention.

Table 19

3 C's and Teacher Retention

3 C's	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total *S*	Leave *(L)*	% of Total *L*
Characteristics	24	*21%*	22	*23%*	2	12%
Conditions	57	*51%*	44	*46%*	13	76%
Compensation	31	*28%*	29	*31%*	2	12%
Total	112		95		17	

No Response = 6

When the 18 teachers who intend to leave were analyzed, the differences with regard to the 3 C's had more disparity. There were 13 (76%) of the 18 teachers who intend to leave stated that conditions had the greatest influence on retention compared

with two teachers who answered “characteristics” and two who answered “compensation.”

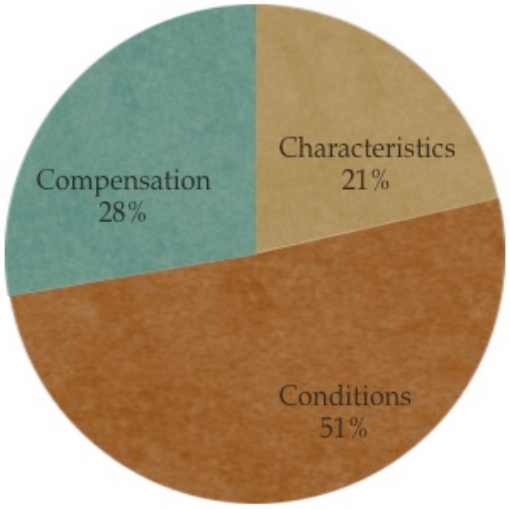

Figure 5: 3 C’s and Teacher Retention

Another way the data from Table 19 was analyzed was illustrated in Table 20. Table 20 focused on the percent that intend to leave from each of the 3 total number of participants who answered either characteristics, conditions, or compensation.

Table 20

3 C’s and Teacher Retention (Part 2)

3 C’s	Number of Responses *(N)*	Leave *(L)*	% that Intended to Leave L/N
Characteristics	24	2	8%
Conditions	57	13	23%
Compensation	31	2	6%
Total	112	17	15%

No Response = 6

One teacher who responded conditions had the greatest influence on teacher retention stated:

> I think the biggest retention challenges are isolation and workload. We have very little access to support systems or other teachers who teach the same grades as us. It can be very socially isolating for young teachers after being in college. Also, there are no breaks, no preps, and very few days off. Most of us work far more than 40 hours a week.

Working conditions.

Class size.

Monk (2007) found that smaller class sizes, all else being equal, were an attractive working condition of teaching in rural schools. The average class size for rural Montana elementary teachers who participated in this research was 9, and 91 of the 115 teachers (86%) reported teaching in a class with fewer than 15 students. When analyzing the data in Table 21, it was found that as the class size of teachers intending to leave increased from 12% for teachers in classrooms with under four students to 14% for teachers in classrooms with five to nine students, to 19% for teachers in classrooms with 10 to 14 students and then to 23% for teachers in classroom with 15 to 19 students. In other words, as the class size increased, the percentage of teachers who intend to leave increased. It is also important to note that there were only three total classrooms with 20 or more students who participated in this research and all three of these teachers intended to stay. Not only did the group with 20 students or more have too few of teachers to report a percentage who intended to leave, it was the only group that did not follow the

trend of more students in the classroom yielding a higher percentage of those who intend to leave.

Table 21

Class Size by Range

Class Size	Number of Responses *(N)*	*%* of Total N	Stay *(S)*	% of Total *S*	Leave *(L)*	% of Total *L*
Under 5	25	*22%*	22	*23%*	3	17%
5 to 9	42	*37%*	36	*37%*	6	33%
10 to 14	32	*28%*	26	*27%*	6	33%
15 to 19	13	*11%*	10	*10%*	3	17%
20 to 24	3	*3%*	3	*3%*	-	-
Total	115		97		18	

No Response = 3

When disaggregating the data even further, a higher frequency (15) was found for classrooms with exactly four students than any other class size. Table 22 illustrates the frequencies of classroom sizes for research participants.

Table 22

Actual Class Size

Class Size	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total *S*	Leave *(L)*	% of Total *L*
1	-	-	-	-	-	-
2	2	2%	2	2%	-	-
3	8	7%	7	7%	1	6%
4	15	13%	13	13%	2	11%
5	7	6%	5	5%	2	11%
6	9	8%	8	8%	1	6%
7	9	8%	8	8%	1	6%
8	11	10%	9	9%	2	11%
9	6	5%	6	6%	-	-
10	8	7%	7	7%	1	6%
11	7	6%	6	6%	1	6%
12	7	6%	4	4%	3	17%
13	5	4%	5	5%	-	-
14	5	4%	4	4%	1	6%
15	2	2%	2	2%	-	-
16	4	3%	4	4%	-	-
17	3	3%	1	1%	2	11%
18	3	3%	2	2%	1	6%
19	1	1%	1	1%	-	-
20	-	-	-	-	-	-
21	1	1%	1	1%	-	-
22	1	1%	1	1%	-	-
23	1	1%	1	1%	-	-
Total	115		97		18	

No Response = 3

School Size.

Over half (58%) of participants reported teaching in a Montana rural elementary school with less than 25 students, see Table 23. More so, the majority (10 of the 18) of participants who intended to leave are teaching in schools with fewer than 25 students. A closer look at these 10 teachers who are teaching in schools with fewer than 25 students and intended to leave revealed that only two (20%) of them believed they were prepared to teach in one of Montana's rural elementary schools, compared to over 40% of the rest of the rural teachers who participated in the study.

Of the 10 teachers in this group who intended to leave were females, taught in a multi-grade classroom, nine indicated that although they intend to leave their current position, they plan to stay in the field of education, nine did not have school aged children, eight stated they did not have adequate resources, and seven indicated that distance to family influenced their intentions to leave. It is also worth noting that five of the women from the group of 10 who intended to leave have master's degrees, but only one of them graduated from a Montana high school.

Table 23

School Size by Range

District Size	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total *S*	Leave *(L)*	% of Total *L*
Under 5	12	*10%*	10	*10%*	2	11%
5 to 9	16	*14%*	12	*12%*	4	22%
10 to 14	18	*16%*	16	*16%*	2	11%
15 to 19	15	*13%*	14	*14%*	1	6%
20 to 24	7	*6%*	6	*6%*	1	6%
25 to 29	6	*5%*	5	*5%*	1	6%
30 to 34	7	*6%*	7	*7%*	-	-
35 to 39	1	*1%*	1	*1%*	-	-
40 to 44	5	*4%*	4	*4%*	1	6%
45 to 49	1	*1%*	1	*1%*	-	-
50 to 54	2	*2%*	2	*2%*	-	-
55 to 59	-	-	-	-	-	-
60 to 64	-	-	-	-	-	-
65 to 69	3	*3%*	3	*3%*	-	-
70 to 74	3	*3%*	3	*3%*	-	-
75 to 79	5	*4%*	4	*4%*	1	6%
80 to 84	7	*6%*	5	*5%*	2	11%
85 to 89	4	*3%*	3	*3%*	1	6%
90 to 94	-	-	-	-	-	-
95 to 99	-	-	-	-	-	-
100 to 104	5	*4%*	3	*3%*	2	11%
Total	117		99		18	

No Response = 1

Sole Teachers.

There were 28 teachers who reported having the same number of students in their classroom as the total number of students in the school. For the purpose of this research, these 28 teachers were grouped together for further analysis and given the label "sole teacher." It is important to note that the data represented in Table 24 was reported by the actual number represented in each group, not percentages, due to the small overall number (28) of sole teachers.

The only sole teacher who graduated from a Montana high school and received her teaching certificate in Montana and intended to leave is the lowest paid sole teacher at $21,000 and no medical insurance for two years of experience. She planned to leave the teaching profession completely and offered the following additional comments:

> I have heard of teachers moving to larger towns for more salary, but the rural schools in our community take pretty good care of their teachers, so the leaving for more salary would be part of a personality who values money over community.

When asked if a higher salary would increase retention in Montana's rural elementary schools, she also stated the following as a way to use salary creatively to increase retention:

> Not increasing salary at the get-go, but maybe a monetary reward for staying... perhaps the ability for a raise each year so that teachers can think of their long-term finances more. In the short term, I have every need met, but the longer a teacher stays, the more they will need to set aside for retirement/retirement housing, etc.

Table 24

Sole Teachers

Group	Subgroup	Number of Responses *(N)*	Stay (S)	Leave (L)	% of N that Leaves (L/N)
Region	1	4	3	1	25%
	2	7	6	1	14%
	3	3	3	-	-
	4	8	6	2	25%
	5	6	3	3	50%
Age	Under 30	1	1	-	-
	30 to 39	7	4	3	43%
	40 to 49	6	4	2	33%
	50 to 59	12	10	2	17%
	60 and Over	2	2	-	-
Sex	Male	2	2	-	-
	Female	26	19	7	27%
Marital Status	Married	18	15	3	17%
	Single	10	6	4	40%
Similar Community	Yes	11	10	1	9%
	No	17	11	6	35%
High School (HS)	In-State	11	10	1	9%
	Out-of-State	17	11	6	35%
Teaching Certification (TC)	In-State	17	17	1	6%
	Out-of-State	8	3	5	63%
	On-Line	2	1	1	50%
(HS) and (TC)	In-State (HS) In-State (TC)	11	10	1	9%
	Out-of-State (HS) In-State (TC)	8	4	4	50%

Overall, majority of sole teachers were female (93%), married (64%), completed teacher certification at a Montana college or university (64%), and were between the ages of 50 and 59 (43%). Those who were most likely to leave were located in Region V (50% intended to leave), were between the ages of 30 and 39 (76% intend to leave), and attending an out of state high school then moved to Montana to obtain a college teaching certificate from a Montana college or university (50%).

Teaching in a multi-grade classroom.

There were over 90% (106) of teachers in this research teaching in a multi-grade classroom, and there were notable differences between the percentage of teachers teaching in a multi-grade classroom who intended to leave (13%) and the 40% who teach in a non multi-grade classroom and intended to leave. It is also worth noting that the only male teaching in a non multi-grade classroom intended to leave.

Table 25

Multi-Grade Classrooms

Classroom	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Multi-Grade	106	91%	92	94%	14	78%
Non Multi Grade	10	9%	6	6%	4	22%
Total	116		98		18	

No Response = 2

Mentoring programs.

Over 60% of the teachers who participated in this research stated that they did not have access to a mentoring program, Table 25. Of the 44 teachers who stated they had

access to a mentoring program, three intend to leave their current position (7%), while 20% of the 70 teachers without access to a mentoring program intend to leave.

Table 26

Mentoring Program

Mentoring Program	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total S	Leave (L)	% of Total L
Yes	44	39%	41	42%	3	18%
No	70	61%	56	58%	14	82%
Total	114		97		17	

No Response = 4

The three teachers who had access to mentoring programs and decided to leave all earned their teaching certification in another state, were in their 50's, all had spent 8-10 years in their current position. In addition, all three stated that "conditions" that had the biggest influence on their decision to leave. One teacher who intended to leave the profession completely and will stay in the community because of her husband's employment was married with four grown children, has 14 total years in education, went to high school in a small town on the eastside of Montana, left the state to attend college in North Dakota and then returned to the same region (Region I) where she grew up offered the following insightful comments:

> Rural elementary teachers perform extra duties… we teach our own P.E., art and help in the library because we do not have a full time librarian. We lost our custodian last year so we all help move desks and furniture in and out of the rooms at the beginning and end of each school term. Many of us have several

different jobs in the school to ensure it runs smoothly. For example, the music teacher teaches reading first period, then computer the rest of the morning. In the afternoon he teaches music classes. We do not have a principal at our school. I teach third grade and hold the supervising teacher position as well. I work very closely with our County Superintendent and our school board and help with the day-to-day functions of the school.

When asked why she believes teachers stay she stated, "They like working with a close knit teaching team. They enjoy working with smaller groups of children. They also enjoy being part of a problem solving team." On the other hand, when asked why she believes people leave she stated, "Lower salaries and lack of benefits that the bigger schools can provide."

Support from stakeholders.

There were three questions in this research that asked participants, on a scale from 0% to 100%, to fill in the percentage of support perceived from the community, parents, and county superintendent. Table 26 displays the results of support as averages for the three stakeholder groups. This table is in a different format than most of the other tables due to participants responding with an actual number (percentage); thus allowing for averages of responses to be reported. There is a notable difference in the average county superintendent support for teachers who intended to leave than the teachers who intended to stay of 10% compared to the other two stakeholder group differences of 1% to 2%.

Table 27

Support

Support	Overall Average %	Intend to Stay (S) Average %	Intend to Leave (L) Average %	Difference (S-L)
Community	77%	78%	76%	2%
Parents	86%	86%	85%	1%
County Supt.	83%	84%	74%	10%

Table 27 documents 18 of 116 teachers stated that they did not have a connection to the community. That is, nearly 85% of the respondents believed they had a good relationship with the community, parents, and administration. The 15% who did not perceive a good relationship, like those who did perceive a good relationship, considered their weakest aspect to be with the community in general rather than parents or administration.

Using Discriminate Function Analysis, with 72% correct predictability, that those teachers having a perceived level of parental support of at least 86% were found to be the most likely to remain in the system. Additionally, the perceived level of support from the county superintendent was a better predictor, being able to correctly predict 83% of those who intended to stay and 70% of those who intended to leave. Perceived levels of support from the county superintendent at or above 83% were necessary to suggest a teacher intended to stay while those below suggested they intended to leave their current position, though this variable better predicted who intended to stay than those who do not intend to stay.

Table 28

Community Connection

Community Connection	Number of Responses *(N)*	Average % Community Support	Average % Parental Support	Average % County Superintendent
Yes	98	82%	89%	85%
No	18	54%	68%	71%
Difference of Yes - No		28%	21%	14%

No Response = 2

Distance to work.

Discriminate Function Analysis found 84% correct predictability for those who intended to stay based upon the miles the spouse had to drive to get to work as well as a 70% correct predictability for those who intended to leave based upon same variable, miles the spouse has to drive to get to work.

That being said, those spouses who had to drive to work, and who drove 19 or fewer miles to their place of employment were most likely to have a spouse who intended to stay in his or her present school while those spouses who drove further than 19 miles were more likely to have a spouse who intended to leave their current teaching position.

Compensation

Salary.

The average teaching salary for Montana's rural elementary teachers who participated in this research for the 2014-2015 school year was $30,346 with a standard deviation of $6,825. Compared to Montana's average teaching salary of $48,855 and the

national average teaching salary of $56,103 (NEA, 2014). The discrepancy between the average national teaching salary and participants in this research was over $25,000; while the discrepancy between the average Montana teaching salary and participants in this research was over $18,000.

When analyzing the difference between beginning teacher salaries, the disparities were not as widespread as average salaries, and in fact the first year teachers who participated in this research, on average, earned a higher salary than the average beginning salary for the state of Montana. See Table 28.

Table 29

Salary Comparison

	National	Montana	Participants	Differences	
Average Salaries	(N)	(M)	(P)	P-N	P-M
All Teachers	$56,103	$48,855	$30,346	$-25,757	$-18,509
Beginning Teachers	$36,141	$27,274	$27,411	$-8,730	$137

When data were disaggregated using the same categories from Table 18 it was found that there is no noticeable difference in the average salary for those who intended to stay ($30,394) and those who intended to leave ($30,101), see Table 29. However, when examined in in ranges of experience in increments of five years, there was a notable discrepancy in the average salary for those who intended to stay with a total of five to nine years of total rural teaching experience ($31,164) and those with five to nine years of total rural teaching experience who intended to leave ($27,167) of almost $4,000 ($3,998) compared to the other ranges of total rural teaching experience that were $1,124 for under five years of experience and $1,200 for 10 to 15 years of experience.

Table 30

Salary and Experience

Years of Rural Experience	Average Salary	N	Intend to Stay Average Salary	N	Intend to Leave Average Salary	N
1 to 4	$27,403	59	$27,594	50	$26,469	9
5 to 9	$30,593	22	$31,164	18	$27,167	4
10 to 14	$36,821	17	$36,700	13	$35,500	4
15 to 19	$34,357	10	$34,357	10		
20 and over	$34,375	10	$32,143	5	$50,000	1
Overall Average	$30,346	118	$30,394	100	$30,101	18

The range of experience of 20 years and up presents a different situation. The only teacher in the 20 and up range who intended to leave made a salary of $50,000 and plans to apply for an administrative position next year in the same community. He has spent 20 years in the same district and has never taught in another rural school district besides his current district. He graduated from high school in another state and came to Montana to earn his teaching license. He originally took the position because he liked the geographic location. He and his wife have raised two (now grown) children in this community of which he has lived in for 25 years. He felt connected to the community and 100% support from the county superintendent. He works in the largest school district operating under the supervision of a county superintendent represented in this study at 101 students (12 of which are in his multi-grade classroom). When asked why he believes teachers stay he said, “Small class size, the community cares, and flexible and changing

annual schedules.” He also believes Montana would benefit from a statewide salary schedule.

The teacher with the most years of service in the current position has been in the same position at the same Region IV school for 37 years and makes a salary of $27,000 and no medical coverage is provided by her district that operates with 11 students. She was born, raised, graduated from high school and went to college all within 100 miles of where she is currently teaching. She and her husband have lived in the same rural community for 60 years. Her insight as to why she thinks teachers stay or leave is very perceptive. “Most (teachers) live in a smaller community or have spouses who have some sort of ranching employment.” Teachers leave because:

> Their spouses don't have any ties to the community, or work away from the community. They feel there are many more demands on a rural teacher (doing it all, principal, secretary, state reports, technology, hosting science fairs, track meets, basketball etc.. no time during the day to do those type of things).

She does not believe that higher salaries alone will increase retention, “I think helping teachers reduce the load of "extra" things that need to be done.” She also went on to say that the greatest challenge is:

> In larger schools, teachers are responsible only for their own classrooms... in rural schools the teacher is responsible for "everything" thus feeling overwhelmed and frustrated as rural school teachers are not paid as well as in larger schools but certainly are expected to keep the school running smoothly.

Another teacher who intended to leave her current position had the following to say about salaries and incentives:

> I think that incentives such as better pay and loan forgiveness programs would go a long way. Having help, such as aides, who can take on some of the time-consuming tasks (recess duty, simple grading, lunch duty) would also help give teachers a little breathing room during the day.

Another teacher who intended to leave her current teaching position said the following with regard to salary:

> I don't think it is all of it, but it certainly would help. Salary is not the reason I don't plan on staying, but it also offers me no incentive to stay. My salary is so low given my work history and education level that I am ashamed to tell people how much I make. Without my husband's job there is no way I could live off my salary while paying back my student loans. My school offers no loan forgiveness program to help with this.

It is also important to note that those who intended to leave think the starting annual salary should be $1,100 more than their current average salary, which is for an average of 10 years of experience. On the other hand, those who intended to stay think the starting salary should be about $500 per year less than their current average salary, which also is based upon 10 years of experience. So while those who intended to leave are making the same as those who intended to stay, which happens to be based on the same amount of experience, the responses from those who intended to stay and those who intend to leave are easily compared. Those who intended to leave think the starting salary should be approximately $31,200 while those intending to stay held the starting salary should be about $29,900 or about $1,300 less than those who do not intend to stay.

Benefits.

There were more participants who did not receive any medical coverage (47%) than those who received partial coverage (18%) and full coverage (35%); however, there was not a notable difference in the percentage of teachers with no coverage who intended to leave (14%), those with partial coverage who intend to leave (16%), and those with full coverage (14%). In addition, of the 108 teachers who responded to this question, only four of them (4%) who said their current benefit package included coverage (partial or full) for spouse or children.

Table 31

Insurance Coverage for Employee

Insurance Coverage	Number of Responses *(N)*	*%* of Total N	Stay (S)	% of Total *S*	Leave *(L)*	% of Total *L*
None	51	47%	44	48%	7	*44%*
Partial	19	18%	16	17%	3	*19%*
Full	38	35%	32	35%	6	*38%*
Total	108		92		16	

No Response = 10

Incentives.

Each of the "incentive" categories was shown in Table 31. With respect to housing, 19% of the participants stated that housing was offered as an incentive while 26% percent of the participants stated that tuition assistance was offered as an incentive and 28% stated they received a signing bonus as an incentive. Much lower than the previously mentioned incentives was a moving allowance used as an incentive at only 3% and summer employment opportunities at 9%. Although the last two incentives listed

above (moving stipend and summer employment) have a very low number of participants that stated these were incentives offered in their school, 100% of the participants in each of these groups intended to stay.

Table 32

Incentives

Group	Subgroup	Number of Responses *(N)*	Stay (S)	Leave (L)	% of N that Leaves (L/N)
Housing Assistance	Yes	21	15	6	29%
	No	89	79	10	11%
Tuition Assistance	Yes	29	24	5	17%
	No	82	70	12	15%
Signing Bonus	Yes	31	28	3	10%
	No	79	66	13	16%
Moving Stipend	Yes	3	3	-	-
	No	105	89	16	15%
Summer Employment	Yes	10	10	-	-
	No	102	85	17	17%

There were more comments made about the availability of housing than any of the other working or environmental conditions. One of the female teachers who attended both high school and earned her teaching certificate in another state commented, "availability of housing, administrative support, teacher prep time and isolation" cause people to leave. Another teacher who intends to stay stated, "(The) ability to afford housing and other costs of living" causes people to leave. "We live in a high cost of living place and my salary only covers the rent." Another teacher who went to a Montana small high school commented that the, "ability to afford housing and other costs of living" are necessary in order to increase retention. She took her current position because it is her first year of teaching and it was the best job offer. She also commented that she

feels teachers stay because they have, “hard work ethics, dedication, and a strong commitment to students and student success.” Teachers leave because of, “little pay and lack of professional support.”

Participants in this research were also asked if their school offered other incentives besides the ones mentioned above. Four participants stated that their district offered a retention incentive of some kind. Two of the teachers stated that they received a retention incentive at the end of the school year and two more stated that they receive a $2,000 bonus on their next contract for staying. Free lunch, a Christmas bonus, housing utility stipend, travel reimbursement, and professional development reimbursement were also mentioned as incentives offered as a means of retaining teachers.

Statewide Salary Schedule

There were 106 participants who responded to the question, “Would Montana’s rural elementary teachers benefit from a statewide salary schedule?” Of the 106 who responded, 72% said yes. When disaggregated by age, 85% of participants over the age of 50 said yes, 72% of all females in this research said yes, 76% of single teachers said yes, 81% of participants with over 15 years of rural teaching experience, and 76% of participants who graduated from a Montana high school said yes. Most noticeable was the 93% of participants with a master’s degree said yes to a statewide salary schedule to increase retention in Montana’s rural elementary schools.

Table 33

Statewide Salary Schedule

Category	Group	Number of Responses *(N)*	Yes	No	% of Yes

All Respondents		106	76	30	72%
Age	Under 30	13	9	4	69%
	30 to 39	22	13	9	59%
	40 to 49	31	19	12	61%
	50 to 59	27	24	3	89%
	60 and Over	10	8	2	80%
Total Years of Rural Teaching Experience	Under 5	55	37	18	67%
	5 to 9	21	16	5	76%
	10 to 14	14	10	4	71%
	15 to 19	8	6	2	75%
	20 and Over	8	7	1	88%
Sex	Male	11	7	4	64%
	Female	94	68	25	72%
Marital Status	Single	34	26	8	76%
	Married	72	50	22	69%
Educational Attainment	Bachelors	62	36	26	58%
	Masters	44	41	3	93%
High School	In-State	59	45	14	76%
	Out-of-State	45	30	15	67%
Teaching Certification	In-State	64	46	18	72%
	Out-of-State	36	26	10	72%
	On-Line	6	4	2	67%

Summary

The results of the data analysis discussed in this chapter provided a profile of rural Montana elementary teachers who intended to stay or leave their current teaching

position. From the data analysis, a picture of characteristics, conditions, and compensation, factors that are associated with retention in Montana's rural elementary schools were drawn.

Overall, there were 188 rural teachers who were invited to be part of this research and 137 competed the on-line survey yielding a return rate of 73%. Of the 137 teachers who completed the survey, over half were teaching in Regions 4 and 5; the western most part of the state. The 118 teachers who intended to either stay or stay became the focus of this research with 73% intending to stay and 13% intending to leave. The rest of this summary pertains only to the 118 teachers who intended to stay or leave and will be referred to as teachers. The other 19 participants who completed the survey either intended to retire, did not answer the question, or did not know their future intentions to stay or leave.

With regard to Johnathan Sher's 3's (1983), teachers were asked which of the three C's had the greatest influence on teacher retention. Conditions was the most dominant at 51%, 21% said characteristics, and 28% said compensation. Additionally, 76% of the teachers who intended to leave selected conditions as the 3 C that had the greatest influence on teacher retention in Montana's rural elementary schools.

During the 2014-2015 school year, there were 98 rural schools that operated under the supervision of a county superintendent in the state of Montana, and 55 of the 98 schools were operating with only one teacher. These teachers were referred to as "sole teachers" in this chapter as well as in the next chapter.

Understanding the characteristics of Montana's rural elementary teachers who participated in this study is imperative. There were only 14 teachers who were under the

age of 30 and 13 of them were females who intended to stay in their current position next year. Overall, 90% of the teachers were female with 87% of them intending to stay. Males represented 10% of the teachers and 64% intended to stay. The average age for females staying and leaving was the same (45 years), while average age of males staying was 43 years old and leaving was 42 years old. Married couples accounted for 69% of all teachers with 87% of these teachers intending to stay. Teachers who were both female and married represented 62% of all teachers in this research. Families were also a large part of the rural teaching lifestyle with 69% of the teachers having at least one child.

The researcher thought it important to know whether a teacher was teaching in a similar community to where he or she graduated from high school (also referred to as hometown throughout this research). It was found that 60% of the teachers were not teaching in a community similar to their hometown. When this information was combined with the teachers' perception of feeling prepared, almost twice as many teachers reported not being from a similar community and not feeling prepared (45), as not being from a similar community and feeling prepared (24) or being from a similar community and not feeling prepared (24), being from a similar community and feeling prepared (23). Of these four groups, the lowest percentage of those who intended to leave came from the group of teachers who where not from a similar community but felt prepared (4%).

Where teachers attended high school and college were also factors investigated in this research. Characteristics of each teacher's high school attended were collected and analyzed finding with 75% correct predictability, using Discriminant Function Analysis,

that those teachers who were in a graduation class size of 190 or fewer student were more likely to stay.

Where teachers attended colleges or universities to earn teacher certification was also a factor studied in this research. In fact, 61% of all teachers attended a Montana college or university for teacher training and only 11% of these teachers intend to leave compared to 21% who intended to leave after receiving teacher certification of out of state or the 25% of teachers who received certification on-line and intended to leave. Specific to Montana colleges and universities, The University of Montana in Missoula had the largest number of teachers represented in this research at 18 teachers.

Teachers were split 75% with a bachelor's degree and 25% with a master's degree. For those with a bachelor's degree, 11% intended to leave compared to 24% of the teachers who intended to leave with a master's degree. Also notable was the fact that 18 of the 118 teachers were working towards an additional degree at the time this research was conducted.

The amount of experience a rural teacher had was analyzed by the number of years in his or her current position and by the total number of years teaching in all rural schools. The analysis found that half of teachers were in their first four years in current position with 85% of them intending to stay. Additionally, 51 of the 118 teachers had multiple rural teaching experiences in two or more rural schools.

Class size and school size were also working conditions explored in this research. The average class size was nine and 86% of all teachers reported teaching in a class with fewer than 15 students. As class size increased from the following categories: under 5, 5 to 9, 10 to 14, 15 to 19, and 20 and over the percentage of teachers intending to leave

increased. As mentioned above, sole teachers are teachers who have a class size equal to the total enrollment for the school thus making them the sole teacher of education in their school. There were 28 of these teachers who were part of this research. These teachers are also part of a group of teachers teaching in a multi-grade classroom. Multi-grade teachers account for 90% of teachers in this research.

Support is also a major component of working conditions. Support from other teachers, through mentoring programs, and support from the community, parents, and county superintendent are all important. Only 7% of teachers with access to mentoring programs intended to leave compared to the 20% who did not have access to mentoring programs and intended to leave. There was also a notable difference in the support from the county superintendent for those who intended to stay and those who intended to leave.

Using Discriminant Function Analysis, it was found, with 72% correct predictability that teachers who have 86% parental support or higher intended to stay in their current position. Even more so, it could be predicated with 83% correct predictability, that teachers with 83% perceived support from their county superintendent were more likely to stay and those with 70% or lower support from their county superintendent were more likely to leave their current position.

Distance to work was also investigated. Discriminant Function Analysis found 84% correct predictability for those who intended to stay based upon the spouse driving 19 or fewer miles to work as well as a 70% correct predictability for those who intended to leave based upon spouses who drove over 19 miles to work.

The third C, compensation, also was analyzed in this research. It was found that the comparison of average teaching salaries between Montana rural teachers, Montana teachers, and teachers nationally had different findings than the average teaching salaries for new teachers in Montana's rural schools represented in this research, Montana in general, and teachers nationally. According to the NEA (2014), the average rural Montana teacher made $25,757 less than national average teaching salary and $18,509 less than average Montana teachers. Beginning teachers in Montana's rural elementary schools made $8,730 less than the average beginning teacher nationally and $137 more than the average beginning teacher in Montana. Only 35% of teachers in this research had full medical coverage and 4% of all teachers in this research reported having coverage (partial or full) for a spouse or children. A large majority, 72%, of all teachers in this research were in favor of a statewide salary schedule to increase teacher retention with 93% of all teachers with a master's degree, representing the most educated teachers in Montana's rural schools being in support of a statewide salary schedule.

In conclusion, the findings from Chapter Four will be used in Chapter Five to draw conclusions about the factors that predict teacher retention in Montana's rural elementary schools. The analysis from this chapter and the review of the literature in Chapter Two will help establish recommendations regarding improving teacher retention in Montana rural schools as well as determine implications for future research.

Chapter Five

Conclusions

This research addressed one of the most persistent and serious problems facing education in general (Ingersoll & Perda, 2013) and Montana education in particular (OPI,

2005), that is, poor teacher retention in rural elementary schools. To that end, a survey was used to gather data from Montana's rural elementary school teachers. The 73% response rate substantially exceeded the *a priori* level of 60% thereby validating an analysis to determine if there were meaningful predictors that could discriminate between those teachers who intended to stay and those who intended to leave their current position through the Retention of Rural Teacher Framework, RRTF (Sher, 1983).

The quantitative and qualitative findings both yielded valuable insight into the purpose and importance of this research. Appropriate individual findings with the capacity to form the response to the research question have been brought forth and synthesized into both a conceptual whole, i.e., the response to the research question and into practical means to increase teacher retention, i.e., the recommendations.

Research Question

The overarching research question that was seminal to the design of this research was: What factors predict teacher retention in Montana's rural elementary schools?

Essential Findings

Overall, there were 188 rural teachers who were invited to be part of this research and 137 participated. Most of the teachers stated they intended to either stay or leave their current teaching position (118) and the other 19 intended to retire, did not know their intentions, or did not answer this question. Thus, the 118 teachers who intended to either stay or stay became the focus of this research with a large majority intending to stay in their current position (73%). Unless otherwise noted, teachers, for the remainder of this chapter refer to the 118 rural Montana elementary teachers who intended to stay or leave.

Using the RRTF, participants in the research clearly stated that conditions, followed by compensation, and then characteristics had the biggest influence on retention. Results from the data analyses provided a profile of rural elementary teachers in Montana who intended to stay or leave their current teaching position. From the data analysis, a picture of characteristics, conditions, and compensation, factors that are associated with retention in Montana's rural elementary schools were drawn. One of these teachers commented that rural teachers leave because:

> They become wore out from all of the government paper work. As a multi-grade teacher who runs a rural school, we have so many responsibilities. Not only do we need to plan and teach many grade levels, our school board members rely on us to take care of the building, make many phone calls, order supplies and books, be knowledgeable about policies and state requirements, go through the mail, etc. As rural schoolteachers we feel that our plates are already running over and at the same time our paychecks are very small. We put in so many ours for so little pay.

Another said rural teachers leave because they are, "overwhelmed by workload and isolation." Working in isolation is a factor for many of the schools that were represented in this research. When asked if there was additional information that these teachers would like to share, the following was stated:

> I can only speak for myself but the main reason I am leaving is that the amount of work and time I spend over and above teaching is huge. I think I am getting burnt out with it all. Especially with the pay I make. It is a joke. For a teacher with a master's degree, and the time I put into all of the extra jobs I do, the pay is horrible. For a teacher's income to be at the poverty level, that is a shame.

The third C, compensation, also was analyzed in this research. It was found that the comparison of average teaching salaries between Montana rural teachers, Montana teachers, and teachers nationally differed substantially from the average teaching salaries for new teachers in Montana's rural schools in this research, Montana, and teachers nationally. According to the NEA (2014), the average rural Montana teacher made $25,757 less than national average teaching salary and $18,509 less than average Montana teacher. Teachers from this research commented the following as suggestions to increase retention, "Salary is far too low," and "higher pay would help." Another said:

> I think it is overwhelming how underpaid rural teachers are. They work as hard, if not much harder, than teachers in other districts. If salary was a concern for my family, or me I would not be able to teach in this district. I want my daughter to attend school here, because I love the opportunities that a rural district offers, but I would be unable to teach here, if my husband did not make a salary to support our family. I was completely caught off guard when the district offered a starting salary of $24,000, especially since I have 5 years of public school experience, 8 years of experience in a private setting, and a Master's degree.

Beginning teachers in Montana's rural elementary schools made $8,730 less than the average beginning teacher nationally and $137 more than the average beginning teacher in Montana. Four teachers commented that their schools offered some type of retention incentive. Recruitment of teachers to rural locations, from a monitory standpoint, is actually above the starting salary for Montana teachers statewide. Rural beginning teachers made about the same amount of money, as the statewide average where as the

difference between average beginning teacher salaries in Montana and all teacher salaries in Montana was roughly $20,000.

A statewide salary schedule where steps and lanes are guaranteed through legislation would equalize salaries across the state in an equitable manner regardless of geographic location. A creative suggestion offered by one of the participants was not focused on increasing the beginning salary to increase retention, but:

> Not increasing salary at the get-go, but maybe a monetary reward for staying... perhaps the ability for a raise each year so that teachers can think of their long-term finances more. In the short term, I have every need met, but the longer a teacher stays, the more they will need to set aside for retirement/retirement housing, etc. I would stay at this school longer if my spouse were able to intern locally, I would appreciate more for my family's future.

Profile of Montana's rural elementary teacher.

Over half of all teachers in Montana's rural elementary schools work in a single teacher school and another quarter of them work in a two-teacher school. Those working in a single teacher school, for purposes of this research were referred to as "sole teacher." The typical teacher was a married female with one child. Her age ranged from 40 to 49. She does not teach in a community similar to the community where she spent the majority of her childhood but she was likely to have received her teacher preparation from a Montana college or university. She likely held a bachelor's degree, had an average class size of nine students in a multi-grade setting, had been at her current school for under five years, and likely had another rural teaching experience besides her current position.

Profile of Montana's rural elementary teacher who intended to stay.

The following factors that predict retention in Montana's rural elementary schools were explained below. Almost all of the teachers in this research were females with very high intentions of staying in their current positions. Males, on the other hand, represented a very small portion of the rural teaching force and were much more likely to leave their current rural teaching position. And although the number of teachers under the age of 30 was low, all of them but one intended to stay.

Married teachers accounted for over two thirds of a teachers and all but a small few intended to stay, and Discriminate Function Analysis found 84% correct predictability for those who intended to stay had a spouse who drove 19 miles or less to work, as well as a 70% correct predictability for those who intended to leave had a spouse who drove over 19 miles to work each day.

There was no experimentally important difference in the predictability of retention based upon the age of the teachers. When disaggregated by sex, the findings did not change, that is, the average age of females or males did not meaningfully distinguish between the intent to stay or leave the rural school setting.

Teachers who were not from a community similar to the community where they spent the majority of their childhood but were educated at a Montana college or university were also most likely to stay. Where teachers attended high school and college were also factors investigated in this research. Specific to the size of the high school graduating class, Discriminate Function Analysis found with 75% predictability teachers who graduated from high school with a class size with 190 students or less were more likely to stay.

Teachers who held a bachelor's degree were two times more likely to stay than teachers with a master's degree. In addition, very few indicated they were working on furthering their education with a master's degree and only one was working on a post graduate degree.

Not only did a majority of the teachers in this research who intended to stay have less than five years of experience in their current position, almost all of them taught in a multi-grade classroom. Also, as the number of students in the classroom decreased, in increments of five, beginning with 20 students, the percent of teachers that intended to stay increased.

There were also certain working and environmental conditions that teachers who intended to stay had in common. Teachers who had access to mentoring programs were far more likely to stay than those who did not have access. Support from the community, parents and county superintendent were also contributing factors to the predictability that at teacher would stay in a rural Montana elementary school. Using Discriminate Function Analysis, with 72% correct predictability, that those teachers having a perceived level of parental support of at least 86% were found to be the most likely to remain in the system. Additionally, the perceived level of support from the county superintendent was a better predictor, being able to correctly predict 83% of those who intended to stay and 70% of those who intended to leave.

Response to research question.

This research found in part there clearly are numerous variables with the capacity to predict retention but it also found that how these variables interact to generate a greater predictive efficacy of retention is not nearly so clear. The commonalities among predictor variables that bring about a predictability to stay or leave are easily compromised in varying degrees by immeasurable discriminating variables that lessen the initial level of predictability rendered by one, or a combination of, predictor variables.

Nevertheless, the answer to the research question was strongly in the affirmative with the understanding that the function of these predictive factors were supported by individual qualitative data. As a result, the recommendations offered here were designed to illuminate most effective application of these findings.

Recommendations

Clearly research regarding retention has little importance if the application pool for open rural teaching positions lacks sufficiently qualified candidates. To enhance that pool, findings from this research suggest rural school district personnel

1. Develop a narrative addressing in the positive, factors particular to each school district that emphasizes the presence of those qualities or factors that have been found in this research to be associated with retention and offer alternatives to those factors that are not present or immediately available in the district. In addition, there are often offsetting conditions that should be brought out in the district position announcements that provide applicants with a broader picture of available employment and living conditions. These factors are delineated in the remainder of these recommendations.

2. Teachers willing to stay indicated altruistic reasons for remaining in a rural school; however, they also made it clear they need to be able to maintain a reasonable standard of living. Most teachers who informed this issue firmly believed their pay was too low, a perspective that was more than substantiated by state and national data. The state must address this issue in a more comprehensive manner; however, this same issue must also be addressed at the district level.

   District officials must show an awareness of the need for higher pay and aggressively seek funding for improved rural teacher pay. The vast majority of school boards are from rural schools and if united, they would have a great deal of influence at the state level, particularly if they make their concerns known board by board in addition to communicating as a unified whole through Montana Rural Education Association, Montana Small School Alliance or similar organizations.

   Teachers indicated a need to have their plight understood and having boards that not only understand their monetary needs but also make a real effort to have the state make good on its Constitutional obligation to provide a free and appropriate public education, FAPE, to each child in Montana regardless of financial status or geographical location. If properly formed, the rural school boards could easily exert more political pressure on the state legislature than the non-rural schools if they would each show up at the legislature in addition to being represented by a

statewide service organization(s). No teacher expressed a goal to get rich, but rather simply to subsist so they could continue in the work they love.

3. Working conditions were also highly predictive of retention and were supported by qualitative discussion from individual participants. Boards have a great deal of control over working conditions. School boards that could recognize the importance of teachers as teachers and offload could substantially mitigate the retention issue, as possible, assigned duties that fill in the gaps in the logistical operations of the school district.

   In many small schools, the addition of even one more employee to pick up the odds and ends of assigned duties unrelated to teacher licensure that are distributed to the teachers can have a huge impact not just on freeing up more time for teachers to be teachers, but it can have just as important of an impact upon teacher morale. By having teachers fill in for whatever isn't being done at the staff level only conceals the real financial needs of rural schools.

4. To further underscore the importance of eliminating board-teacher adversity as a means to improve retention, particularly during negotiations, the board should not find counter arguments to teacher requests such as arguing small class size offsets not having higher salaries. Both board and teachers need to be on the same side, i.e., that of the students, and both should seek a win-win at all times.

5. Many teachers pointed out that employment of a spouse was very important to the sustainability of their families, even to the point that teacher retention diminishes once their spouse's employment extends beyond a distance of 19 miles. Rural

districts should make every effort to work with local businesses, farmers, and other employment opportunities in order to provide additional income for teachers and spouses outside of the general fund. Such employment opportunities in addition to the teacher's teaching contract and spousal employment would also be good for the local economy.

6. Teachers also expressed external support as being strongly associated with their decisions to remain or leave the district. The county superintendents should be made aware of this finding and increase the visibility of their support of rural schools. This finding is very subtle and was an important finding. Teachers should be encouraged to invite the county superintendent to view or participate in appropriate activities on a regular basis.
7. Parental support was also a predictive factor. Increasing the parent-school relationship would not be difficult to attain and should be given strong consideration. It would not take much thought and effort to increase the external support provided at the county and family levels and while this research found only an association in this regard, increasing the level of external support may very well improve the retention of rural school teachers.

Conceptual Findings

Teacher preparation programs and support for new teachers.

Teacher preparation programs.

Having a rural background has been a factor found to boost the probability of a teacher being initially attracted to work in a rural school and then staying in a rural school for multiple years (Collins, 1999; Davis, 2002; Lui, 2007), but this was not consistent

with the findings in this research. The relationship of two factors was explored in order to determine if having a rural background in conjunction with being prepared to teach in a rural school boosts rural teacher retention in Montana. It was important to note that the definition of prepared was not a defined by the research, but rather left up to each teacher answering the question. Therefore, each teacher who participated in this study defined being ready, or prepared based on his or her own interpretation. The data from these two variables that was analyzed in Chapter Four of this dissertation resulted in the development of the Montana Rural Teacher Retention Framework as seen in Figure 3. Explanation of the framework and how it came to be is clarified over the next two paragraphs.

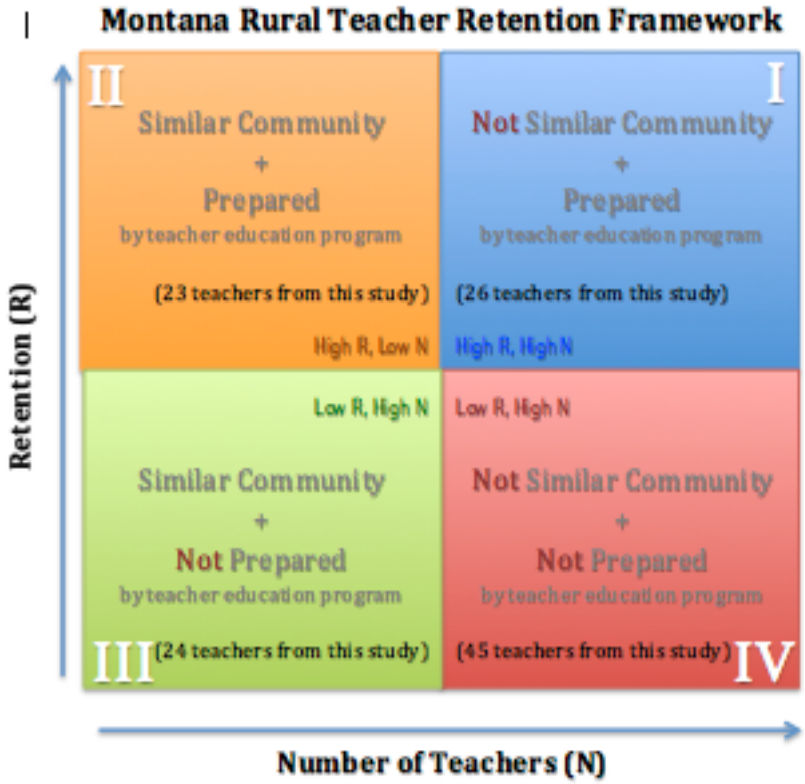

Figure 6: Montana Rural Teacher Retention Framework

Over one third of the all teachers in this research (47/118) stated the current community where they are teaching is similar to the community where they spent the majority of their childhood; these teachers are represented on the left side of Figure 3 (see quadrants II and III) and grouped with the name "Similar Community." The right side of Figure 3 (see quadrants I and IV) represents the remaining teachers in this research; which was almost two thirds of the total population (71/118). These teachers stated that the current community where they teach is not similar to the community where the spent the majority of their childhood. They were grouped with the name "Not Similar Community." How the teachers in this research answered the question on the survey determined the side (left or right) of the Montana Rural Teacher Retention Framework where they would be placed.

The top and the bottom quadrants of the Montana Rural Teacher Retention Framework (Figure 3) are laid out in similar fashion. The top two quadrants, Quadrants I and II, represent all teachers who believed their teacher education program prepared them for the unique challenges associated with teaching in a rural school (49/118), and the bottom quadrants, Quadrants III and IV, represent the remaining teachers who did not believe their teacher education program prepared them for the unique challenges associated with teaching in a rural school (69/118).

Important to this research was the large number of teachers in this research who received their teacher preparation in the state of Montana. Nearly twice as many rural teachers received their teacher preparation in Montana versus another state, however only about a third of them said their teacher education program prepared them for the unique challenges associated with teaching in a rural school.

If a large majority of Montana's rural teachers are receiving certification from Montana's colleges and universities, then the State's colleges and universities need to seek best practices for preparing teachers for a rural teaching experience.

There were five universities responsible for preparing most of the teachers in this study, Montana State University – Billings, Montana State University – Bozeman, Montana State University – Northern, The University of Montana – Missoula, and The University of Montana – Western. For each of these universities, with the exception of Montana State University - Northern, there were more teachers that stated their teacher education program did not prepare them for the unique challenges associated with teaching in a rural school.

The only outlier was Montana State University – Northern. There were three times as many teachers from this university that said they where prepared to teach in a rural school. In addition, all but one of the Montana State University – Northern teachers also said they were teaching in a similar community to where they spent the majority of their childhood. Further research is recommended to better understand the teacher preparation program at this university.

To enhance teacher retention, Montana colleges and universities should focus on getting teachers prepared to teach in rural schools. Rural specific coursework such as learning to teach in a multi-grade classroom, using technology to network with other teachers, learning to be a sole teacher, and understanding "other duties as assigned" would benefit a student in training to become a teacher.

In addition, coursework on the history of Montana's schools and the ruralness of Montana should also be taught as a part of all teacher preparation programs. Unless

teachers in Montana land a teaching position in one of the five populated counties that educates students in a non rural setting, knowing ahead of time what to expect from the rural community, rural location, and rural school is paramount to retention.

Beyond what needs to be taught in teacher preparation coursework are the rural pre-teaching experiences that need to take place. Field experiences and block classes in rural locations would also provide pre-service teachers the opportunity to try on the rural lifestyle (living and teaching) before applying for positions. For many new teachers, the first year of teaching in a rural school acts as field experience. If Montana is focused on retaining teachers in rural schools, what is currently experienced during the first year of rural teaching needs to be replicated during the years of teacher preparation where these teachers can "try on" the rural lifestyle with the support of the college/university and the current rural teachers.

Support for new teachers.

Teachers in this study who had access to mentoring programs were far more likely to stay than those who did not have access. Recent legislation in Montana now requires school districts to develop mentoring and induction programs to assist all teachers in meeting standards (OPI, 2013b). There was a noticeable difference in the reported support from the county superintendent for those who intended to stay.

Compensation, medical insurance, and housing.

There were differing reasons that teachers in this research took their current teaching positions, thus the emphasis on retention should not focus on specific reasons for interest in teaching in a rural area. In addition to emphasizing teacher preparation and mentoring, emphasis should be placed on the things these teachers have in common such as a

statewide salary schedule, and beginning teacher pay of at least $30000 for all Montana teachers.

Salaries.

Beginning rural school teachers in this study earned a salary of $27,411 and the believed (on average) that the starting salary for a beginning teacher should be $30,607. This amount is only $3,196 more than the current average starting salary. In addition, the teachers from this research also believed that (on average) they would have a salary of $35,000 if teaching in a non-rural elementary school district. The difference between what these beginning teachers are actually making and what they believe they should be earning is not a substantial amount. To increase retention, two-thirds of first year teachers who responded to the question about a statewide salary schedule stated that Montana would benefit from a statewide salary schedule. One teacher who intended to leave her current position said the following about salary, “I don't think salary is all of it, but it certainly would help. Salary is not the reason I don't plan on staying, but it also offers me no incentive to stay.”

In order to retain the new teachers entering the rural elementary teaching profession, we need to listen to the simple requests for a raise in beginning teaching salaries to $30,000 through the implementation of a statewide salary schedule.

Statewide salary schedule and medical insurance.

Only 35% of teachers in this research had full medical coverage and 4% of all teachers in this research reported having coverage (partial or full) for a spouse or children. One teacher stated, “I think the biggest struggle for retention is lack of

insurance (health), lowered pay, and lack of proper educational supports," and another offered this insight:

> A majority of our teachers in rural schools do not have full coverage medical benefits provided by the district in which they work. Insurance benefits, like compensation, are critical components of teacher retention. A majority of our teachers have families and have spouses. In order to survive in the real community regardless of how much someone wants to stay to teaching a rural school, must have an adequate salary to provide the necessities of life, proper medical coverage for them and their families, and the ability to have housing in the local community.

Besides medical coverage, the need for a statewide salary schedule was a powerful finding in this research. A large majority, 72%, of all teachers in this research were in favor of a statewide salary schedule to increase teacher retention with 93% of all teachers possessing a master's degree, representing the most educated teachers in Montana's rural schools, being in support of a statewide salary schedule.

The most educated teachers, those with master's degrees, are more likely to leave rural locations. These teachers, almost unanimously, stated that a statewide salary schedule would increase teacher retention in all of Montana rural schools. If we want children in rural locations to have access to highly educated teachers, then Montanans and the Montana Legislature need to listen to the recommendations from those teaching in Montana rural schools with a masters degree and explore options associated with equitable salaries, medical coverage, and benefits across the Montana.

Housing.

Rural schools in Montana are at a greater disadvantage than Montana's non-rural schools because they have less money available for putting incentives in place to retain teachers, which has left them unable to compete with larger, but also underfunded counterparts, within the state (Teacher Training and Resources, 2010). The following two comments were made about housing:

> I think the retention of teachers would be higher if salaries were larger and housing was accessible for teachers whether it is their first year or their 10th.
>
> Living in an oil boom has been hard as a first year teacher, because I cannot afford an apartment, house, etc. If I were not living with my parents I would have to move to a different town and find a different teaching position.

More illuminating was a comment made with regard to housing from a married teacher who has been in the same rural school for a number of years:

> When teachers don't have the ability to live in the town in which they teach, they lose the chance of a full connection to the community. Sometimes a teacher may choose to live in a different community for personal reasons, but housing in the rural locations should always be part of the salary and benefits package in a rural location.

Implications

1. Teacher retention in Montana's rural schools

There was an abundance of research on teacher recruitment and retention for schools across the nation, but Policy analyst Lorna Jimerson, of the Rural School and Community Trust, confirmed that rural-specific information is sparse

additional research on successful retention practices for rural schools is sorely needed (2004). In fact, due to the lack of research on rural schools that is available, researchers must study pieces of literature outside of the United States by looking at research in Canada, Australia, and New Zealand.

Even scarcer was research specific to teacher retention in Montana's rural schools. Two studies specific to Montana's rural schools are a doctoral dissertation titled, "*An investigation of factors related to teacher retention in small rural schools in Montana (Davis, 2002),* and the follow up report for the Board of Public Education titled, *Who will teach Montana's children* (Neilson, 2001, 2002). Both Davis and Neilson paint an accurate picture of Montana's rural schools, and although part of the information in both of these publications still holds true today, updated information needs to be added to the body of research on Montana's rural schools as populations change and technology lessens the communication, collaboration, and educational gap within the state and across the nation.

2. Administrative retention in Montana's rural schools

Although this study focused on factors that can predict teacher retention in Montana's rural elementary schools, future research should examine the reasons why administrators (principals, superintendents, and county superintendents) stay or leave rural school districts. It needs to be understood that the definition of rural, if it is going to incorporate school administrators, must expand to larger school

sizes than were part of this research. A possible question would be, "What factors predict administrative retention in Montana's rural schools?"

3. Explore factors that influence teacher retention all of Montana's schools

There are 51 counties in Montana accounting for over half of the public school enrollment throughout the state. Research on factors that predict teacher retention in the 51 Montana counties that are not densely populated does not exist and would add to the body of rural school research that is sorely needed (Jimerson, 2004).

In addition, exploring factors that influence teacher retention in Montana's non-rural schools as it relates to rural schools would be beneficial to the State of Montana. Although there are five counties that are more densely populated than the other 51 counties, on a national level these are viewed as not highly populated. Understanding the similarities and difference between Montana's rural and non-rural areas would add to the body of knowledge as it specifically relates to Montana's schools.

4. Future research on Montana's "sole teachers"

Sole teachers represent a large part of rural teachers. Many of the current sole teachers will be at the age of retirement and their schools will experience teacher turnover in the near future. Understanding the reasons why these teachers have stayed is critical for proper preparation of the next generation of sole teacher teachers in Montana.

Recommendations

The solution to increasing teacher retention in Montana's rural elementary schools is multifaceted but possible. First, Montana colleges and universities must realize their vital role in preparing teachers to teach in Montana's rural schools, especially if a rural community is not similar to the community where a teacher in training spent the majority of their childhood. Teacher preparation programs must include field experiences in rural locations, giving future teachers and families a chance to try on the rural lifestyle and ask questions before starting a teaching career.

Secondly, the Montana Legislature must implement a statewide salary schedule that includes a livable wage for beginning teachers, regardless of where they teach. The suggested amount for the base would be a minimum of $30,000 with equalized increments as years of experience increase and educational attainment level advances. Other policy matters that need to be addressed at the legislative level are provided medical insurance for teachers and housing options in the community in which they teach.

It is the hope of the researcher that the results of this research will generate action toward the better preparation from Montana's colleges and universities and legislative policy for salaries, medical insurance, and housing. Better preparation and new policy will ensure that the children of Montana will continue to receive a high quality education with classroom consistency.

It is the hope of the researcher that the results from this study will place attention towards better preparation of pre-service teachers in Montana's colleges and universities, as well as help implement Montana teacher policy that addresses salaries, medical

insurance, and housing. Better preparation and new policies will ensure that the children of Montana learn from teachers who understand rural Montana life, assimilate into the rural school culture, can earn a living wage, have access to medical benefits and have availability affordable housing.

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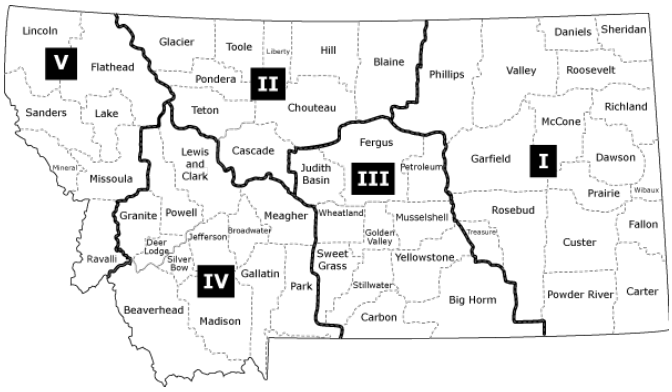
Appendix A

Montana's Rural Elementary Schools for 2014-2015 by Montana CSPD Region



CSPD Region	County	District/School	Number of Teachers
1	Carter County	Alzada School Hammond School Hawks Home School	1 1 1
	Custer County	Kinsey Elementary Kricher Elementary SH Elementary SY Elementary Spring Creek Elementary Trail Creek Elementary	6 3 1 1 1 1
	Dawson County	Bloomfield Elementary Deer Creek Elementary Lindsay Elementary	1 2 2
	Garfield County	Cohagen Elementary Kester Elementary Pine Grove Elementary Ross Elementary Sand Springs Elementary	1 1 1 1 1
	McCone County	Vida School Prairie Elk Colony School	2 1
	Powder River County	Biddle Elementary South Stacy Elementary	1 1
	Richland County	Brorson Elementary Rau Elementary	2 7
	Rosebud County	Birney Elementary	1
	Counties in Region I with no rural elementary schools: Daniels, Fallon, Phillips, Prairie, Roosevelt, Sheridan, Treasure, Valley, Wibaux		

CSPD Region	County	District/School	Number of Teachers
2	Blaine County	Bear Paw Elementary	1
		Cleveland-Lone Tree Elementary	1
		North Harlem Colony Elementary	1
		Zurich Elementary	3
	Chouteau County	Benton Lake Elementary	1
		Carter Elementary	1
		Knees Elementary	2
	Glacier County	Mountain View Elementary	1
	Hill County	Cottonwood Elementary	3
		Davey Elementary	1
		Gilford Colony Elementary	1
	Liberty County	Liberty Elementary	1
		Riverview School	1
	Pondera County	Dupuyer Elementary	1
		Miami Elementary	2
	Teton County	Bynum Elementary	2
		Miller Colony	1
		Golden Ridge Elementary	1
		New Rockport Colony	3
		Rockport Colony	2
	Toole County	Galata Elementary	1
	County in Region II with no rural schools: Cascade		
3	Big Horn County	Spring Creek Elementary	1
	Carbon County	Luther Elementary	4
	Fergus County	Ayers Elementary	1
		Deerfield Elementary	1
		King Colony Elementary	1
		Spring Creek Colony Elem.	1
	Stillwater County	Fishtail Elementary	1
		Molt Elementary	1
		Nye Elementary	1
	Sweet Grass County	Greycliff Elementary	1
		McLeod Elementary	1
		Melville Elementary	1
	Yellowstone County	Morin Elementary	4
	Counties in Region III with no rural schools: Golden Valley, Judith Basin, Musselshell, Petroleum		

CSPD Region	County	District/School	Number of Teachers
4	Beaverhead County	Grant Elementary	2
		Jackson Elementary	2
		Polaris Elementary	1
		Reichle Elementary	2
		Wisdom Elementary	2
		Wise River Elementary	2
	Gallatin County	Cottonwood Elementary	2
		Malmborg Elementary	2
		Pass Creek Elementary	1
		Springhill Elementary	2
	Granite County	Hall Elementary	2
	Jefferson County	Basin Elementary	2
		Cardwell Elementary	4
	Lewis & Clark County	Auchard Creek Elementary	2
		Trinity Elementary	2
		Wolf Creek Elementary	1
	Madison County	Alder-Upper Ruby Elementary	2
	Park County	Cooke City Elementary	1
		Springdale Elementary	1
	Powell County	Avon Elementary	3
		Elliston Elementary	2
		Garrison Elementary	2
		Gold Creek Elementary	1
		Helmville Elementary	3
		Ovando Elementary	2
	Silver Bow County	Divide Elementary	1
		Melrose Elementary	1
	Counties in Region IV with no rural elementary schools: Broadwater, Deer Lodge, Meagher		
5	Flathead County	Pleasant Valley Elementary	1
		Deer Park Elementary	9
	Lake County	Salmon Prairie School	1
		Dayton School	5
		Valley View Elementary	3
	Lincoln County	Fortine Elementary	7
		McCormick Elementary	1
		Trego Elementary	4
		Yaak Elementary	1
	Missoula County	Sunset Elementary	1
		Woodman Elementary	5
	Sanders County	Trout Creek Elementary	9
	Counties in Region V with no rural schools: Mineral and Ravalli		

Appendix B

Survey

You are invited to participate in a research project titled, **What factors, if any, predict teacher retention in Montana's rural elementary schools.** This online census should take about 10 minutes to complete. Participation is voluntary, and responses will be kept anonymous to the degree permitted by the technology being used.

You have the option to not respond to any questions that you choose, and you may exit the census at any time by exiting from this window. Participation or nonparticipation will not impact your relationship with The University of Montana. Submission of the census will be interpreted as your informed consent to participate and that you affirm that you are at least 18 years of age.

If you have any questions about the research, please contact the Principal Investigator, Jilyn Oliveira, via email at jilynoliveira@gmail.com or the faculty advisor, Dr. John Matt at john.matt@umontana.edu. If you have any questions regarding your rights as a research subject, contact the UM Institutional Review Board (IRB) at (406) 243-6672.

Please print or save a copy of this page for your records.

***1. I have read the above information and agree to participate in this research project.**

◯ I agree

2. Using the map of Montana, select the region where your current school district is located.

◯ I
◯ II
◯ III
◯ IV
◯ V

3. Your age

4. Gender

- Female
- Male

5. Marital Status

- Single
- Married

6. Where did you graduate from high school?

School

City

State

7. How many students were in your high school graduating class?

8. Is the current community where you teach similar to the community where you spent the majority of your childhood?

- Yes
- No

9. What is your highest level of education?

- Bachelors (in progress)
- Bachelors
- Masters (in progress)
- Masters
- PH.D/Ed.D (in progress)
- PH.D/Ed.D
- Other (please specify)

10. Do you currently hold a Montana Teaching Certificate?

- ◯ Yes
- ◯ No

11. From what college/university did you (or will you) receive your teaching certificate?

12. Do you believe your teacher education program prepared (or is preparing) you for the unique challenges associated with teaching in a rural school?

- ◯ Yes
- ◯ No

13. Teaching Experience

How many years have you taught in this school district (including the 2014-2015 school year)?

How many years have you taught in **another** similar rural school district?

14. What is the main reason you selected your current teaching position?

- ◯ Returning to my hometown
- ◯ Similar to my hometown
- ◯ Salary or benefits
- ◯ Spouse has a job in the area
- ◯ Relatives live in the area
- ◯ Best job offer
- ◯ Only job offer
- ◯ Children attend the school
- ◯ Shorter commute than previous job
- ◯ Like the geographic location
- ◯ Other (please specify)

15. Living and Working in the Community

How many years have you lived in (near) this school district?	
How many years did you work in this district before teaching in this district (paraprofessional, substitute teacher, etc.)?	
How many relatives do you have living in this school district?	

16. Ages of your children (if you do not have any children, please leave this question blank)

	Age (in years)
Oldest Child	
Child 2	
Child 3	
Child 4	
Child 5	
Child 6	
Child 7	
Child 8	
Child 9	
Child 10	

17. After this year, how many more years do you intend to work in this school district?

18. Next year, I plan to:

- ◯ Teach in this school district
- ◯ Teach in another school district
- ◯ Retire from teaching
- ◯ Leave the teaching profession completely (for a reason other than retirement)
- ◯ Apply for an administrative position
- ◯ Other (please specify)

19. Intentions for next year:

- ◯ Stay in this community
- ◯ Move to a **similar sized** community in Montana
- ◯ Move to a **similar sized** community outside of Montana
- ◯ Move to a **larger** community in Montana
- ◯ Move to a **larger** community outside of Montana
- ◯ I do not know
- ◯ Other (please specify)

20. Has your administrator influenced your intent to stay or leave your current teaching position?

- ◯ Yes
- ◯ No

21. Has the distance to any of the following influenced your intention to stay or leave this school district next year (check all that apply)?

- ☐ Distance to family
- ☐ Distance to school
- ☐ Distance to entertainment
- ☐ Distance to shopping
- ☐ Distance to church
- ☐ Distance to healthcare

Other (please specify)

22. Distance to Work (one-way)

(if you or your spouse work in multiple locations throughout the week, please answer with a daily average)

How far (in miles) do you travel to get to work each day?

If applicable, how far (in miles) does your spouse travel to get to work each day?

23. What percentage (0-100) of support do you feel you have from the following:

Community	
Parents of Your Students	
County Superintendent	

24. Do you feel you have a connection to the community?

- ◯ Yes
- ◯ No

25. Working Conditions

	Yes	No
Does your school district lack sufficient resources for you to provide educational opportunities for your students?	◯	◯
Do you teach in a multi-age classroom?	◯	◯
Does your school district run on a four-day work week?	◯	◯
Are student behaviors a problem in your school district?	◯	◯

26. How many students are in your class?

27. How many students are enrolled in your school district?

28. Do you have access to the following?

	Yes	No
Effective mentoring program (teacher mentoring teacher)	◯	◯
Adequate technology	◯	◯
Reliable internet	◯	◯
Curriculum that is updated to meet the Common Core Standards	◯	◯

29. What is your salary for the 2014-2105 school year?

30. In your opinion, what should be the starting base salary for a new teacher with NO teaching experience?

31. How much do you think your salary would be if you were teaching in a non-rural school district in Montana?

32. In your opinion, would Montana teachers benefit from a state-wide salary schedule?

- ◯ Yes
- ◯ No

33. What percentage (0-100) of medical insurance premium is paid for by the school district for:

(if coverage is not offered enter 0)

You	
Spouse	
Children	

34. What percentage of (0-100) dental and vision insurance premium is paid for by the school district for:

(if coverage is not offered enter 0)

Dental	
Vision	

35. Are any of the following provided as incentives in your school district?

	Yes	No
Housing	◯	◯
Tuition reimbursement	◯	◯
Signing bonus	◯	◯
Moving bonus	◯	◯
Summer employment	◯	◯
Professional organization dues	◯	◯

Other (please specify)

36. Do you believe teacher retention would increase if the school district:

	Yes	No
Hired teachers from the local population	◯	◯
Hired teachers from the substitute teacher list	◯	◯
Hired teachers from the local paraprofessional pool	◯	◯
Hired married couples to work within the district	◯	◯

Other (please specify)

37. What do you believe has the most influence in a teacher's decision to stay in a rural elementary school district?

- ◯ Characteristics (age, gender, marital status, college attendance, hometown)
- ◯ Conditions (working and environmental)
- ◯ Compensation (salary and benefits)

38. Please elaborate on any additional information you would like to add about retention in Montana's rural elementary schools that has been overlooked.

39. Would you be willing to answer the five open-ended questions below?

- ◯ Yes, I would like to add my "voice" to this research and answer the five open-ended questions listed below.
- ◯ No, I do not want to answer the five questions listed below. Please take me to the end of the survey.

1. What do you believe teachers who STAY in rural schools have in common?
2. What do you believe teachers who LEAVE rural schools have in common?
3. Do you think a higher salary is the key to increased rural teacher retention? Why or why not?
4. What do you believe is the greatest challenge of a rural elementary teacher in Montana?
5. How do we increase teacher retention in Montana's rural elementary school districts?

40. What do you believe teachers who STAY in rural schools have in common?

41. What do you believe teachers who LEAVE rural schools have in common?

42. Do you think a higher salary is the key to increased rural teacher retention? Why or why not?

43. What do you believe is the greatest challenge of a rural elementary teacher in Montana?

44. How do we increase teacher retention in Montana's rural elementary school districts?

Thank you for your time! If you have any questions or your would like to discuss this research, please contact me at jillynoliveira@gmail.com. I look forward to sharing this research with you upon its completion.

Appendix C

Protocol and Follow-Up Sequence

Step 1. **Introductory E-Mail to Montana County Superintendents**

An e-mail to all Montana County Superintendents will be sent from Marsha Davis introducing the significance of this study and encouraging approval of participation.

Step 2. **E-Mail to Montana County Superintendents**

An e-mail to all Montana County Superintendents will be sent informing them of the research and the involvement of the teacher(s) whom they supervise.

Step 3. **Initial E-Mail to Rural Montana Elementary School Teachers**

An e-mail will be sent to all rural elementary school teachers asking for their participation in this research. The e-mail will contain a WEB ADDRESS that is hyperlinked to the web-based survey.

Step 4. **Follow-Up E-Mail to Rural Montana Elementary School Teachers**

Three days after the initial email has been sent, a follow-up e-mail will be sent to all teachers as a reminder to complete the survey. The follow-up e-mails will continue to be sent every three days of a period of two weeks.

Step 5. **Phone Calls to Rural Montana Elementary School Teachers**

One week after the initial email has been sent, phone calls will be made to all teachers encouraging them to take the survey or thanking them for participating. If necessary, the WEB ADDRESS will be forwarded again to the teacher.

Appendix D

Introductory E-Mail to Montana County Superintendents from Marsha Davis

TO: ***Insert Name of County Superintendent***

I have been assisting Jilyn Oliveira, current elementary principal at Smith Elementary in Helena, on her doctoral dissertation through The University of Montana. I have known Jilyn since she started her administrative career at Lincoln Public Schools in the fall of 2007. Jilyn is a native Montanan, originally from Libby.

This summer I contacted all of you for a list of your teachers who are currently teaching K-8 students. Thank you for your prompt responses. These teachers are Jilyn's research population. She will be inviting all of them to be part of her research.

Her research question is, **"What factors predict teacher retention in Montana's rural elementary schools."** The results of this study will be sent to each of you as well as each rural elementary school teacher who participates in this study. Jilyn will be sending you an e-mail in the near future, but since my last day is December 31st I wanted to make sure this was sent to all of you before retirement.

Sincerely,

Marsha Davis, Ed.D.
Lewis and Clark County Superintendent
Helena, MT 59001

Appendix E

E-Mail to Montana County Superintendents

TO: ***Insert Name of County Superintendent***

SUBJECT: **What factors predict teacher retention in Montana's rural elementary schools.**

As a follow up to the recent e-mail from Marsha Davis, my name is Jilyn Oliveira and I am the current elementary principal at Smith Elementary in Helena. I am also currently working on my doctoral dissertation through The University of Montana. My research question is, "**What factors predict teacher retention in Montana's rural elementary schools,"** and all teachers teaching under the supervision of a Montana County Superintendent for the 2014-2015 school year are the population to be included in the research.

A link to the web-based survey will be sent to all 170 teachers in the near future. If you have questions or concerns regarding this research, please reply to this e-mail or contact me using the information below. To view the survey, please use the web address list below.

https://ENTERURLHERE

Sincerely,

Jilyn Oliveira – Principal
Smith Elementary School
Helena School District
Helena, MT 59001

Appendix F

Initial E-Mail to Montana Rural Elementary School Teachers

Dear ***Insert Name of Teacher***

As I am sure you are aware, rural schools are experiencing difficulties retaining teachers. As a former rural administrator, I understand the significant impact that a teacher has on fostering child's well-being as well as increasing student achievement. Rural school administrators, the Montana Legislature and Montanans in general need to know what they can do to help retain Montana's rural teachers. Therefore, I am conducting this study as part of my dissertation through the University of Montana to better understand what factors predict teacher retention in Montana's rural elementary schools. My hope is that this research will improve and reform policies and programs regarding teacher retention in Montana's rural elementary schools.

All of Montana's rural elementary schools under the supervision of a county superintendent have been invited to be part of this study. Anonymity for both you and your school will be maintained, and your participation is completely voluntary. The census should only take approximately 10-15 minutes to complete, and I am hoping to have all census data completed by January 31, 2015. Please click on the link below to get started.

I truly appreciate your time and cooperation in completing this survey and I look forward to analyzing the data.

Sincerely,

Jilyn Oliveira – Principal
Smith Elementary School
Helena School District
Helena, MT 59601

Thank you in advance for being part of this meaningful research.

Click here to begin the census!

URL: WWW.ENTERURLHERE.COM

Appendix G

Follow-Up E-Mail to Montana Rural Elementary School Teachers

Dear ***Insert Name of Teacher***

As I am sure you are aware, rural schools are experiencing difficulties retaining teachers. As a former rural administrator, I understand the significant impact that a teacher has on fostering child's well-being as well as increasing student achievement. Rural school administrators, the Montana Legislature and Montanans in general need to know what they can do to help retain Montana's rural teachers. Therefore, I am conducting this study as part of my dissertation through the University of Montana to better understand what factors predict teacher retention in Montana's rural elementary schools. My hope is that this research will improve and reform policies and programs regarding teacher retention in Montana's rural elementary schools.

All of Montana's rural elementary schools under the supervision of a county superintendent have been invited to be part of this study. Anonymity for both you and your school will be maintained, and your participation is completely voluntary. The census should only take approximately 10-15 minutes to complete, and I am hoping to have all census data completed by January 31, 2015. If you have not yet completed the census, please click on the link below to get started.

I truly appreciate your time and cooperation in completing this survey and I look forward to analyzing the data.

Sincerely,

Jilyn Oliveira – Principal
Smith Elementary School
Helena School District
Helena, MT 59601

Thank you in advance for being part of this meaningful research.

Click here to begin the census!

URL: WWW.ENTERURLHERE.COM

Appendix H

Question Justification

#	Question	Possible Answers	Which of the 3 C's	Level
1	I have read the above information and agree to participate in this research project.	I agree	NA	NA
2	Using the map of Montana, select the region where your current school district is located.	I, II, III, IV, V	Background	Nominal
3	Age	Range 1-99	Characteristics	Ratio
4	Gender	Female or Male	Characteristics	Nominal
5	Marital Status	Single or Married	Characteristics	Nominal
6a	Where did you graduate from high school?	*Fill in the Blank*	Characteristics	Nominal
6b	Where did you graduate from high school?	*Fill in the Blank*	Characteristics	Nominal
6c	Where did you graduate from high school?	*Fill in the Blank*	Characteristics	Nominal
7	How many students were in your high school graduating class?	*Fill in the Blank*	Characteristics	Ratio
8	Is the current community were you teach similar to the community where you spent the majority of your childhood?	Yes or No	Characteristics	Nominal
9	What is your highest level of education?	*Pick from a list of choices*	Characteristics	Ordinal
10	Do you currently hold a Montana teaching certificate?	Yes or No	Characteristics	Nominal
11	From what college/university did you (or will you) receive your teaching certificate?	*Fill in the Blank*	Characteristics	Nominal
12	Do you believe your teacher education program prepared (or is preparing) you for the unique challenges associated with teaching in a rural school?	Yes or No	Characteristics	Nominal
13a	How many years have you taught in this school district (including the 2014-2015 school year)?	*Fill in the Blank*	Characteristics	Ratio

13b	How many years have you taught in another similar rural school district?	*Fill in the Blank*	Characteristics	Ratio
14	What is the main reason you selected your current teaching position?	*Pick from a list of choices*	Characteristics	Nominal
15a	How many years have you lived in (near) this school district?	*Fill in the Blank*	Characteristics	Ratio
15b	How many years did you work in this district before teaching in this district (paraprofessional, substitute teacher, etc.)?	*Fill in the Blank*	Characteristics	Ratio
15c	How many relatives do you have living in this school district?	*Fill in the Blank*	Characteristics	Ratio
16a-e	Ages of your children (if you do not have any children, please leave this question blank)	*Fill in the Blank*	Characteristics	Ratio
17	After this year, how many more years do you intend to work in this school district?	*Fill in the Blank*	Characteristics	Ratio
18	Next year, I plan to:	*Pick from a list of choices*	DFA Variable	Nominal
19	Intentions for next year:	*Pick from a list of choices*	Other	Nominal
20	Has your administrator influenced your intent to stay or leave your current teaching position?	Yes or No	Conditions	Nominal
21a	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
21b	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
21c	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
21d	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
21e	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
21f	Has the distance to any of the following influenced your intention to stay or leave this school district?	Yes or No	Conditions	Nominal
22a	How far (in miles) do you travel to get to work each day (one way)?	*Fill in the Blank*	Conditions	Ratio

22b	How far (in miles) does your spouse travel to get to work each day?	*Fill in the Blank*	Conditions	Ratio
23a	What percentage (0-100) of support do you feel you have from the community?	*Fill in the Blank*	Conditions	Ratio
23b	What percentage (0-100) of support do you feel you have from the parents of your children?	*Fill in the Blank*	Conditions	Ratio
23c	What percentage (0-100) of support do you feel you have from the county superintendent?	*Fill in the Blank*	Conditions	Ratio
24	Do you feel you have a connection to the community?	Yes or No	Conditions	Nominal
25a	Does your school district lack sufficient resources for you to provide educational opportunities for your students?	Yes or No	Conditions	Nominal
25b	Do you teach in a multi-age classroom?	Yes or No	Conditions	Nominal
25c	Does your school district run on a 4-day work week?	Yes or No	Conditions	Nominal
25d	Are student behaviors a problem in your school district?	Yes or No	Conditions	Nominal
26	How may students are in your class?	*Fill in the Blank*	Conditions	Ratio
27	How may students are enrolled in your school district?	*Fill in the Blank*	Conditions	Ratio
28a-d	Do you have access to the following?	Yes or No	Conditions	Nominal
29	What is your salary for the 2014-2015 school year?	*Fill in the Blank*	Compensation	Ratio
30	In your opinion, what should be the starting base salary for a new teacher with NO teaching experience?	*Fill in the Blank*	Compensation	Ratio
31	How much do you think your salary would be if you were teaching in a non-rural school district in Montana?	*Fill in the Blank*	Compensation	Ratio
32	In your opinion, would Montana teachers benefit from a state-wide salary schedule?	Yes or No	Compensation	Nominal
33a	What percentage (0-100) for medical insurance premium is paid for by the school district for:	*Fill in the Blank*	Compensation	Ratio

33b	What percentage (0-100) for medical insurance premium is paid for by the school district for:	*Fill in the Blank*	Compensation	Ratio
33c	What percentage (0-100) for medical insurance premium is paid for by the school district for:	*Fill in the Blank*	Compensation	Ratio
34a	What percentage of (0-100) dental and vision insurance premium is paid for by the school district for:	*Fill in the Blank*	Compensation	Ratio
34b	What percentage of (0-100) dental and vision insurance premium is paid for by the school district for:	*Fill in the Blank*	Compensation	Ratio
35a-e	Are any of the following provided as incentives in your school district?	Yes or No	Compensation	Nominal
36a	Do you believe teacher retention would increase if the school district hired teachers from the local population?	Yes or No	Other	Nominal
36b	Do you believe teacher retention would increase if the school district hired teachers from the substitute teacher list?	Yes or No	Other	Nominal
36c	Do you believe teacher retention would increase if the school district hired from the local professional pool?	Yes or No	Other	Nominal
36d	Do you believe teacher retention would increase if the school district hired married couples to work within the district?	Yes or No	Other	Nominal
37	What do you believe has the most influence in a teacher's decision to stay in a rural elementary school district?	*Pick from a list of choices*	Other	Nominal
38	Please elaborate on any additional information you would like to add about retention in Montana's rural elementary schools that has been overlooked.	Qualitative		Qualitative
39	Would you be willing to answer the five open-ended questions below?	Yes or No		Nominal
40	What do you believe teachers who stay in rural schools have in common?	Qualitative		Qualitative

41	What do you believe teachers who leave rural schools have in common?	Qualitative		Qualitative
42	Do you think a higher salary is the key to increased rural teacher retention? Why or why not?	Qualitative		Qualitative
43	What do you believe is the greatest challenge of a rural elementary teacher in Montana?	Qualitative		Qualitative
44	How do we increase teacher retention in Montana's rural elementary school districts?	Qualitative		Qualitative